PHASE II
INVESTIGATION REPORT

AREA B: PARCEL B18
TRADEPOINT ATLANTIC
SPARROWS POINT, MARYLAND

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1.0 INTRODUCTION

ARM Group LLC (ARM), on behalf of EnviroAnalytics Group, LLC (EAG), has completed a Phase II Investigation of a portion of the Tradepoint Atlantic property (formerly Sparrows Point Terminal, LLC) that has been designated as Area B: Parcel B18 (the Site). Parcel B18 is comprised of 36.8 acres of the approximately 3,100-acre former steel making facility (**Figure 1**). The Site contains the Kinder Morgan Warehouse, located in the south central portion of the parcel, and is bordered by Parcel B4 to the north, Parcel B5 to the east, Parcel B10 to the south, and off-property areas and Bear Creek to the west.

The Phase II Investigation was performed in accordance with procedures outlined in the approved Phase II Investigation Work Plan for Area B: Parcel B18. This Work Plan (Revision 0 dated September 22, 2016) and an associated Comment Response Letter (dated March 23, 2017) were collectively approved by the Maryland Department of the Environment (MDE) and the United States Environmental Protection Agency (USEPA) on March 30, 2017 in compliance with requirements pursuant to the following:

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

Following the initiation of Phase II Investigation work in Parcel B18, two supplemental Work Plans were submitted to the MDE and the USEPA to complete further characterization of soil and groundwater near the western end of the parcel in the vicinity of two large aboveground storage tanks (ASTs) identified as the historical No. 10 and No. 11 Fuel Oil Storage Tanks. The area containing the two former ASTs is collectively referred to as the No. 10 Tank Area. These supplemental Work Plans were the No. 10 Tank Investigation Work Plan Addendum (Revision 0 dated November 29, 2016) and the No. 10 Tank Investigation Work Plan Addendum *Expansion: Groundwater Investigation* (Revision 1 dated June 18, 2018). The supplemental investigations completed under these Work Plans were reported separately within the comprehensive No. 10 Tank Area Investigation Report (dated January 6, 2020). This Phase II Investigation Report discusses the findings of the original Parcel B18 Phase II Investigation.

Parcel B18 is part of the acreage that was removed (Carveout Area) from inclusion in the Multimedia Consent Decree between Bethlehem Steel Corporation, the USEPA, and the MDE (effective October 8, 1997) as documented in correspondence received from the USEPA on September 12, 2014. Based on this agreement, the USEPA determined that no further investigation or corrective measures will be required under the terms of the Consent Decree for the Carveout Area. However, the SA reflects that the property within the Carveout Area will remain subject to the USEPA's Resource Conservation and Recovery Act (RCRA) Corrective Action authorities.

An application to enter the full Tradepoint Atlantic property (3,100 acres) into the MDE's 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.

1.1. SITE HISTORY

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

Parcel B18 is located just north of the Coke Oven Area near the southwestern peninsula of the Tradepoint Atlantic property. Although the majority of the Coke Oven Area is south of Parcel B18, several coke oven processes historically operated within the Site boundary. Toward the southern portion of the parcel, there were six former Coke Batteries and two former Coke Wharfs identified on historical drawings. Numerous tar storage tanks, as well as oil tanks, were located throughout the Site, including the two large ASTs in the No. 10 Tank Area.

A Mechanical Maintenance Office and Service Building was located toward the western portion of the Parcel B18. A Maintenance Yard was located in the southwestern portion of the Site, just south of the Office and Service Building. There were several other repair shops, service buildings, and mechanical maintenance storage buildings throughout the parcel. There was also a Coke Oven Laboratory located just south of the Mechanical Maintenance Office and Service Building. No detailed information is available regarding the specific processes that occurred within the maintenance shops, storage buildings, or laboratory identified at the Site. According to recent aerial images, all buildings have been demolished within the Site boundaries with the exception of the Kinder Morgan Warehouse. The warehouse was previously used to store Kinder Morgan equipment and bulk materials that were imported and exported at the Site. An unenclosed pavilion that shelters equipment is located to the west of the existing warehouse.

As documented in the Parcel B18 Work Plan, ARM conducted site visits on August 31, 2016 and September 21, 2016 to observe the conditions in Parcel B18. Several large zinc storage piles were observed within the former Kinder Morgan Warehouse. The concrete floor slab appeared to be in good condition with little evidence of cracking or pitting. Additional site information can be found in the Parcel B18 Work Plan (Revision 0 dated September 22, 2016).

1.2. OBJECTIVES

The objective of this Phase II Investigation was to characterize the nature and extent of contamination at the Site. A summary table of the site investigation locations, including the sample identification numbers and the analyses performed, is provided as **Appendix A**. This report includes a summary of the work performed, including the environmental setting, site investigation methods, analytical results and data usability assessment, and findings and recommendations.

2.0 ENVIRONMENTAL SETTING

2.1. LAND USE AND SURFACE FEATURES

The Tradepoint Atlantic property consists of the former Sparrows Point steel mill. According to the Phase I Environmental Site Assessment (ESA) prepared by Weaver Boos dated May 19, 2014, the property is zoned Manufacturing Heavy-Industrial Major (MH-IM). Surrounding property zoning classifications (beyond Tradepoint Atlantic) include the following: Manufacturing Light (ML); Resource Conservation (RC); Density Residential (DR); Business Roadside (BR); Business Major (BM); Business Local (BL); and Residential Office (RO). Light industrial and commercial properties are located northeast of the property and northwest of the property across Bear Creek. Residential areas of Edgemere and Fort Howard are located northeast of the property across Jones Creek and to the southeast across Old Road Bay, respectively. Residential and commercial areas of Dundalk are located northwest of the property across Bear Creek.

According to topographic maps provided by EAG, the Site is at an elevation of approximately 10 to 15 feet above mean sea level (amsl). Elevations at the Site range from 10 to roughly 40 feet amsl across the parcel area; the highest elevations are the result of relatively large material stockpiles. Apart from these stockpiles, elevations at the Site are fairly uniform across the parcel with no clear stormwater discharge direction. According to Figure B-2 of the Stormwater Pollution Prevention Plan (SWPPP) Revision 8 dated April 30, 2020, runoff from the eastern portion of Parcel B18 drains toward the Turning Basin while runoff from the western portion of the Site ultimately flows through the National Pollutant Discharge Elimination System (NPDES) permitted Outfall 012, which discharges to Bear Creek located across the boundary of the Tradepoint Atlantic property to the west.

2.2. REGIONAL GEOLOGY

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

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

2.3. SITE GEOLOGY/HYDROGEOLOGY

Groundcover at the Site is comprised of approximately 66% natural soils and 34% non-native fill materials (i.e., slag) based on the approximate shoreline of the Sparrows Point Peninsula in 1916, as shown on **Figure 2** (adapted from Figure 2-20 in the Description of Current Conditions (DCC) Report prepared by Rust Environment and Infrastructure dated January 1998).

In general, the encountered subsurface geology included non-native fill materials (silt, sand, gravel, brick, cinder ballast, coal, coke ash, concrete, slag, stockpiled materials, and wood fragments) and natural soils, which included fine-grained sediments (clays and silts) and coarse-grained sediments (sands, gravels, and cobbles). Temporary stockpiled materials had been placed above the existing soils at locations B18-019-SB and B18-020-SB with heights up to 10 feet above the surrounding ground surface. These stockpiled materials, which were temporarily placed on Parcel B18 in support of ongoing development of the Tradepoint Atlantic property, were not characterized during this Phase II Investigation. Samples were collected from below any overlying temporary stockpiled materials. Soil boring observation logs are provided in **Appendix B**. Shallow groundwater was observed in soil cores from 4 to 11.4 feet below ground surface (bgs) across the Site; however, groundwater was not encountered at every boring location. Please note that unless otherwise indicated, all Unified Soil Classification System (USCS) group symbols provided on the attached boring logs are from visual observations, and not from laboratory testing.

Groundwater was previously investigated at the Site during the separate Area B Groundwater Investigation. These groundwater data were included as part of the Area B Groundwater Phase II Investigation Report (dated September 30, 2016). A total of 10 temporary groundwater sample collection points (commonly referred to as piezometers) were installed as supplemental locations across the parcel to investigate shallow groundwater conditions. The locations of the completed piezometers are indicated on **Figure 3**. The piezometers were surveyed by a Maryland-licensed surveyor, and the supporting documentation from the survey is included in **Appendix C**.

Static groundwater elevation measurements were obtained approximately 48 hours after the installation of each piezometer. Surveyed top of casing (TOC) and ground surface elevations for all applicable locations can be found in **Table 1**, along with the static (48-hour) depth to water (DTW) measurements. The groundwater elevations calculated from the survey data and 48-hour gauging measurements are shown on **Table 1** and **Figure 3**; however, these elevations have not been contoured because they were collected on multiple dates (due to the extended duration of this investigation) and do not represent a synoptic round of measurements. Based on the field measurements obtained during the preceding Area B Groundwater Investigation (as described in the Area B Groundwater Phase II Investigation Report dated September 30, 2016), shallow groundwater appears to flow west toward Bear Creek across most of the Site, but toward the site interior and ultimately the Turning Basin near the eastern end of the Site. The groundwater contours developed during the Area B Groundwater Investigation are shown on **Figure 3**.

3.0 SITE INVESTIGATION

A total of 127 soil samples (from 73 boring locations), 10 groundwater samples, and four sub-slab soil gas samples were collected for analysis between September 21, 2016 and August 10, 2017 during the Parcel B18 Phase II Investigation. The majority of the investigation work was completed by December 14, 2016; however supplemental soil samples were collected from boring location B18-077-SB on June 28, 2017 and a groundwater sample was collected from the piezometer installed at this location (B18-077-PZ) on August 10, 2017. Location B18-077-SB had been requested by the MDE and was added to the sampling plan in ARM's Comment Response Letter dated March 23, 2017.

This Phase II Investigation utilized methods and protocols that followed the procedures included in the Quality Assurance Project Plan (QAPP) dated April 5, 2016 which was approved by the agencies to support the investigation and remediation of the Tradepoint Atlantic property. Information regarding the project organization, field activities and sampling methods, sampling equipment, sample handling and management procedures, the selected laboratory and analytical methods, quality control and quality assurance procedures, investigation-derived waste (IDW) management, and reporting requirements are described in detail in the approved Parcel B18 Work Plan dated September 22, 2016, and the QAPP.

All site characterization activities were conducted under the site-specific Health and Safety Plan (HASP) provided as Appendix E of the approved Work Plan.

3.1. SAMPLE TARGET IDENTIFICATION

Previous activities within and around the buildings and facilities located on the Tradepoint Atlantic property may have been historical sources of environmental contamination. If present, source areas were identified as targets for sampling through a careful review of historical documents. When a sampling target was identified, a boring was placed at or next to its location using Geographic Information Systems (GIS) software (ArcMap Version 10.3.1).

Sampling targets included, as applicable, 1) Recognized Environmental Conditions (RECs) shown on the REC Location Map provided in Weaver Boos' Phase I ESA, 2) additional findings (non-RECs) from the Phase I ESA which were identified as potential environmental concerns, and 3) Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) identified from the DCC Report prepared by Rust Environment and Infrastructure. No SWMUs or AOCs were identified in the Parcel B18 Work Plan. The following RECs were identified in the Parcel B18 Work Plan: No. 10 Fuel Oil Storage Tank (REC 8B, Finding 202) and Shipyard Apparent Impoundment (REC 25, Finding 277) and Sparrows Point Shipyard (Finding 285). Both of the identified RECs are described in further detail below.

No. 10 Fuel Oil Storage Tank (REC 8B, Finding 202):

The No. 10 Fuel Oil Storage Tank and several surrounding historical ASTs may have been sources of historical oil releases according to the Phase I ESA. These oil releases had the potential to reach the adjoining surface waters and to cause migration of petroleum products through surface water, groundwater, or soil. Thus, Weaver Boos considered the No. 10 Fuel Oil Storage Tank and surrounding tanks to be a REC.

Shipyard Apparent Impoundment (REC 25, Finding 277) and Sparrows Point Shipyard (Finding 285):

A review of historical aerial photographs by Weaver Boos revealed a large surface impoundment, visible by 1938. This impoundment is located north of the coal slip and coal yard and extends north to an area just east of the Shipyard's Graving Dock, while still on Shipyard property. This impoundment appears to have discharged process water, visible as dark plumes in aerial photographs, to the adjoining Bear Creek and Patapsco River surface water systems until at least 1952. The discharges associated with this impoundment suggest the potential release of petroleum products or other hazardous substances, prompting Weaver Boos to identify the impoundment as a REC. The Sparrows Point Shipyard, a now adjoining property once part of the Tradepoint Atlantic property, had several spill incidents, at least seven of which lack cleanup documentation. Weaver Boos stated that it is unlikely that contaminants from spills in the Shipyard would have migrated onto the Tradepoint Atlantic property.

Four sets of historical drawings were also reviewed to identify potential sampling targets for the Site. These drawings included the 5000 Set (Plant Arrangement), the 5100 Set (Plant Index), the 5500 Set (Plant Sewer Lines), and a set of drawings indicating coke oven gas distribution drip leg locations. Drip legs are points throughout the distribution system where coke oven gas condensate was removed from the gas pipelines. The condensate from the drip legs was typically discharged to drums, although it is possible some spilled out of the drums and on to the ground. There were no drip legs identified inside the boundary of Parcel B18. A summary of the specific drawings covering the Site is presented in **Table 2**. Sampling target locations were identified if the historical drawings depicted industrial activities or a specific feature at a location that may have been a source of environmental contamination that potentially impacted the Site.

Based on the review of plant drawings and historical documents (or based on direct agency guidance), non-REC sampling targets were identified at the Site that included the following: Coke Batteries, Coke Oven Lab, Coke Wharf, Cooling Slag, Disintegrator Building, Electric Substation, Filter Building, Filters, Hot Slag Pits, Mechanical Maintenance Yard, Mechanical Maintenance Shop, Mechanical Maintenance Storage, Mechanical Maintenance Office and Service Building, Phoenix Recycle Area, Pipe Shop, Tar Pump House/Oil Station, Pump House, Repair Shop, Service Building, Settling Basin, Spray Pond, Storage Shed, Tar Storage Tanks, Belt Storage, No. 1 Boiler House, No. 1 Pump Station, Turbo Generator, Old No. 1 & No. 2 Gas Engines, and Fuel Oil Storage Tank & Small ASTs. A summary of the targets that were

investigated, along with the applicable boring identification numbers and the analyses performed, has been provided as **Appendix A**. During the completion of fieldwork, it was necessary to shift some borings from the approved locations given in the Work Plan, primarily due to access restrictions and/or refusal. **Table 3** provides the identification numbers of the field adjusted borings, the coordinates of the proposed and final locations, and the distance/direction of the field shifts. It should be noted that soil boring B18-075-SB and the associated piezometer B18-075-PZ were located slightly outside of Parcel B18, within adjacent Parcel B10. However, the data associated with this soil boring and piezometer are included within this report.

The density of soil borings met the requirements set forth in QAPP Worksheet 17 – Sampling Design and Rationale. As defined in the Work Plan, Parcel B18 contained a total of 34.8 acres without engineered barriers and 2.0 acres with engineered barriers. In accordance with the relevant sampling density requirements, a minimum of 24 soil borings were required to cover the areas without engineered barriers, and a minimum of 2 soil borings were required to cover the areas with engineered barriers. A total of 26 soil borings were required to meet the density specification; however, 73 soil borings were advanced during this Phase II Investigation, with analytical samples successfully collected from 71 locations (see Section 3.2).

3.2. SOIL INVESTIGATION

Continuous core soil borings were advanced at 73 locations across the Site to assess the presence or absence of soil contamination, and to assess the vertical distribution of any encountered contamination (**Figure 4**). Among these locations, 72 were originally proposed in the Parcel B18 Work Plan, and one additional boring was completed following a request from the MDE (at location B18-077-SB) to facilitate the installation of a temporary piezometer. Supplemental soil samples were collected from the additional boring in accordance with the procedures outlined in ARM's Comment Response Letter dated March 23, 2017. It should be noted that analytical samples were not collected from two soil borings (B18-044-SB and B18-045-SB) due to the presence of non-aqueous phase liquid (NAPL) observed throughout the soil cores.

The continuous core soil borings were advanced to total depths between 1 and 20 feet bgs using the Geoprobe® MC-7 Macrocore soil sampler (surface to 10 feet bgs) and the Geoprobe® D-22 Dual-Tube Sampler (depths >10 feet bgs). In a few cases, a Diedrich® D120 hollow stem auger rig was utilized if the Geoprobe® encountered shallow refusal. At each of the completed boring locations, each soil core was visually inspected and screened with a hand-held photoionization detector (PID) prior to logging soil types. Soil boring logs have been included as **Appendix B**, and the PID calibration log has been included as **Appendix D**. Unless otherwise indicated, all USCS group symbols provided on the attached boring logs are from visual observations.

One shallow sample was collected from the 0 to 1 foot depth interval, and a deeper sample was collected from the 4 to 5 foot depth interval from each continuous core soil boring. If clean surface cover materials (such as pavement, gravel, or stockpiled materials) were present, the first

1 foot of soil beneath this layer was collected as the surface sample. One additional set of samples was also collected from the 9 to 10 foot depth interval if groundwater was not encountered. If the PID or other field observations indicated contamination to exist at a depth greater than 3 feet bgs but less than 9 feet bgs, and above the water table, the sample from the deeper 4 to 5 foot interval was shifted to the alternate depth interval. It should be noted that soil samples were not collected from a depth that was below the water table.

As stated above, stockpiled materials had been temporarily placed on Parcel B18 in support of ongoing development elsewhere on the Tradepoint Atlantic property. There were two borings (B18-019-SB and B18-020-SB) that were completed in areas with clean soil stockpiles above the ground surface. At each of these locations, the Geoprobe® advanced through the soil stockpile and the field personnel identified the interval of the stockpiled material on the boring log. The 0 to 1 foot interval at each of these locations was collected at the true ground surface (below the stockpiled material). For example, sample B18-020-SB-11 is considered to be the shallow sample at this location because it was collected from beneath 10 feet of stockpile materials.

Soil sampling activities were conducted in accordance with the procedures and methods referenced in **Field Standard Operating Procedure (SOP) Numbers 008, 009, 012, and 013** provided in Appendix A of the QAPP. Down-hole soil sampling equipment was decontaminated after soil sampling had been concluded at a location, according to the procedures and methods referenced in **Field SOP Number 016** provided in Appendix A of the QAPP.

Each soil sample collected during this investigation was submitted to Pace Analytical Services, Inc. (PACE) for analysis of Target Compound List (TCL) semi-volatile organic compounds (SVOCs) via USEPA Methods 8270 and 8270 SIM, Oil & Grease via USEPA Methods 1664 and 9071, total petroleum hydrocarbon (TPH) diesel range organics (DRO) and gasoline range organics (GRO) via USEPA Methods 5030 and 8015, Target Analyte List (TAL) Metals via USEPA Methods 6010 and 7470/7471, hexavalent chromium via USEPA Method 7196, and cyanide via USEPA Method 9012. Samples from any depth interval with a sustained PID reading of greater than 10 ppm were also analyzed for TCL volatile organic compounds (VOCs) via USEPA Method 8260. Additionally, the shallow soil samples collected across the Site from the 0 to 1 foot bgs interval were analyzed for polychlorinated biphenyls (PCBs) via USEPA Method 8082. Sample containers, preservatives, and holding times for the sample analyses are listed in the QAPP Worksheet 19 & 30 – Sample Containers, Preservation, and Holding Times.

If the PID reading from the 9 to 10 foot bgs interval was less than 10 ppm, all parameters would be held by the laboratory pending the analysis of the 0 to 1 and 4 to 5 foot bgs (or field adjusted interval) samples. If the 9 to 10 foot bgs interval exhibited a sustained PID reading of 10 ppm, this sample would be released to be analyzed for VOCs, SVOCs, TPH-DRO, TPH-GRO, and Oil & Grease. However, the samples for metals and cyanide would still be held by the laboratory pending the analysis of the 0 to 1 and 4 to 5 foot bgs interval samples. If the preliminary

laboratory results from the 4 to 5 foot bgs interval indicated exceedances of the Project Action Limits (PALs) for any constituents, the held sample from the 9 to 10 foot interval was released to be analyzed for those constituents that exhibited PAL exceedances in the overlying sample.

3.3. GROUNDWATER INVESTIGATION

A total of 10 temporary groundwater sample collection points (piezometers) were installed in the shallow hydrogeologic zone to investigate groundwater within Parcel B18 during this Phase II Investigation. In addition to the nine originally proposed piezometers and in accordance with ARM's Comment Response Letter dated March 23, 2017, piezometer B18-077-PZ was installed after the majority of the investigation work had already been completed to facilitate the collection of an additional groundwater sample. The locations of the groundwater sampling piezometers are displayed on **Figure 3**. Piezometer installation activities were conducted in accordance with the procedures and methods referenced in **Field SOP Number 028**. The piezometer construction logs have been included as part of **Appendix B**.

The piezometers were installed at each location using the Geoprobe® DT22 Dual Tube sampling system or Diedrich® D120 hollow stem auger rig. During the installation of each piezometer, soil types were logged and screened with a hand-held PID. Each boring was advanced to a depth approximately 7 feet below where groundwater was identified in the associated soil core, and the temporary, 1-inch PVC piezometer was installed through the outer casing. Following the installation of each piezometer, the 0-hour depth to water was documented and the collection point was checked for the presence of NAPL using an oil-water interface probe in accordance with the methods referenced in **Field SOP Number 019** provided in Appendix A of the QAPP.

After the installation of each temporary groundwater sample collection point, down-hole equipment was decontaminated according to the procedures and methods referenced in **Field SOP Number 016** provided in Appendix A of the QAPP.

Groundwater samples were collected in accordance with methods referenced in **Field SOP Number 006** provided in Appendix A of the QAPP; which employed the use of laboratory supplied sample containers and preservatives, a peristaltic pump, dedicated polyethylene tubing, and a water quality multiparameter meter with a flow-through cell. Groundwater samples submitted for analysis of dissolved metals were filtered in the field with an in-line 0.45 micron filter. The sampling and purge logs have been included in **Appendix E**. Calibration of the multiparameter meter was performed before the start of each day of the sampling event, and a calibration post-check was completed at the end of the day. Appropriate documentation of the multiparameter meter calibration has also been included in **Appendix E**.

Groundwater samples were submitted to PACE, and analyzed for TCL-VOCs via USEPA Method 8260, TCL-SVOCs via USEPA Methods 8270 and 8270 SIM, TPH-DRO/GRO via USEPA Methods 5030 and 8015, Oil & Grease via USEPA Method 1664, TAL-Dissolved

Metals via USEPA Methods 6010 and 7470, dissolved hexavalent chromium via USEPA Method 7196, and total cyanide via USEPA Method 9012. Sample containers, preservatives, and holding times for the sample analyses are listed in the QAPP Worksheet 19 & 30 – Sample Containers, Preservation, and Holding Times.

3.4. SUB-SLAB SOIL GAS INVESTIGATION

A total of four temporary vapor monitoring probes were installed at the locations provided on **Figure 5** to collect sub-slab soil gas samples. The sub-slab soil gas samples were collected according to procedures and methods referenced in **Field SOP Number 002** provided in Appendix A of the QAPP. It should be noted that the monitoring probe installation locations within the Kinder Morgan Warehouse needed to be shifted significantly from the proposed locations given in the Work Plan due to heavy vehicle traffic and stockpile placement. **Table 3** provides the identification numbers of the field adjusted sampling locations, the coordinates of the proposed and final locations, and the distance/direction of the field shifts.

A core drill was used to create a pilot-hole approximately 3-inches in diameter that extended through the concrete floor to facilitate the collection of each sub-slab soil gas sample. A hand auger and/or hammer drill was then used to create a borehole that extended through the subgrade to a depth of at least 8 inches below the bottom of the floor slab. A 6-inch soil gas implant, constructed of double woven stainless steel wire screen, was then attached to an appropriate length of polyethylene tubing and lowered to the bottom of the borehole. Once the implant and tubing were installed, the tubing was capped with a three-way valve, and clean sand was added around the implant to create a permeable layer that extended at least 2 inches above the implant. Bentonite was then added and hydrated to create a seal above the sand pack that extended to the surface. Once installed, each sub-slab soil gas monitoring probe was allowed to equilibrate for at least 24 hours.

Leak tests were performed prior to sample collection to ensure that valid soil gas samples were collected, and to provide quantitative proof of the integrity of the surface seal. The testing involved the introduction of a gaseous tracer compound (helium) into a shroud which covered the sampling point, and then monitoring with a hand-held meter for the presence of helium in the air withdrawn from the subsurface.

While the shroud was inflated, air was purged from the monitoring point using a three-way valve and a syringe. Using the same three-way valve and a syringe, a Tedlar bag was then filled with approximately 500 mL of air that was withdrawn from the monitoring point. The air inside of the Tedlar bag was then screened in the field with the meter. As stated in **Field SOP Number 002**, if less than 10% of the starting concentration of the tracer gas within the shroud was observed in the Tedlar bag sample, the seal could be considered competent and sampling would continue. During fieldwork, the concentration of helium measured in the Tedlar bag was always significantly less than 10%, and each seal was deemed adequate to proceed.

Prior to sampling, a syringe was attached to the three-way valve and three purge volumes of air were removed. After the probe had been purged of any ambient air, an evacuated stainless steel Summa canister with a flow restrictor set for an 24-hour sampling intake time was attached to the tubing. The soil gas sample was then collected over a period of 24 hours. At the completion of the sampling period, the valve of the Summa canister was closed, and an identification tag was attached to the canister. The probes were then removed, the boreholes filled, and the surface repaired. The sub-slab soil gas samples were submitted to PACE and analyzed for VOCs via USEPA Method TO-15.

3.5. MANAGEMENT OF INVESTIGATION-DERIVED WASTE (IDW)

In accordance with **Field SOP Number 005** provided in Appendix A of the QAPP, potentially impacted materials, or IDW, generated during this Phase II Investigation was containerized in 55-gallon (DOT-UN1A2) drums. The types of IDW that were generated during this Phase II Investigation included the following:

- soil cuttings generated from soil borings or the installation of groundwater sample points;
- purged groundwater;
- decontamination fluids; and
- used personal protective equipment

Following the completion of field activities, composite samples were gathered with aliquots from each of the Parcel B18 Phase II IDW soil drums for waste characterization. A list of all results from the soil waste characterization procedure can be found in **Table 4**. IDW drums containing aqueous materials (including aqueous waste generated during the Parcel B18 Phase II Investigation) were characterized by preparing composite samples from randomly selected drums. Each composite sample included aliquots from several individual drums that were chosen as a subset of the aqueous drums being staged on-site at the date of collection. Following the analysis of each sample, the aqueous waste was characterized as non-hazardous. A list of all results from the aqueous waste characterization procedure can be found in **Table 5**.

The parcel-specific IDW drum log from this Phase II Investigation is included as **Appendix F**. All IDW procedures were carried out in accordance with methods referenced in the QAPP Worksheet 21 – Field SOPs and Appendix A of the QAPP.

4.0 ANALYTICAL RESULTS

4.1. SOIL CONDITIONS

Soil analytical results were screened against PALs established in the property-wide QAPP (or other direct guidance from the agencies; i.e. TPH/Oil & Grease) to determine PAL exceedances. PALs are generally based on the USEPA's Regional Screening Levels (RSLs) for the Composite Worker exposure to soil. The Composite Worker is defined by the USEPA as a long-term receptor exposed during the workday who is a full-time employee that spends most of the workday conducting maintenance activities (which typically involve on-site exposures to surface soils) outdoors.

The analytical results for the detected parameters are summarized and compared to the PALs in **Table 6** (Organics) and **Table 7** (Inorganics). The laboratory Certificates of Analysis (including Chains of Custody) and Data Validation Reports (DVRs) have been included as electronic attachments. The DVRs contain a glossary of qualifiers for the final flags assigned to individual results in the attached summary tables.

4.1.1. Soil Conditions: Organic Compounds

As provided in **Table 6**, numerous VOCs were identified above the laboratory's method detection limits (MDLs) in the soil samples collected from across the Site. Two VOCs (benzene and ethylbenzene) were detected above their respective PALs in a single sample, B18-029-SB-4. Benzene was detected at 2,550 mg/kg and ethylbenzene was detected at 41.9 mg/kg. The VOC PAL exceedance location and results are provided on **Figure SB1**.

Table 6 provides a summary of SVOCs detected above the laboratory's MDLs in the soil samples collected from across the Site. The PALs for relevant polynuclear aromatic hydrocarbons (PAHs) have been adjusted upward based on revised toxicity data published in the USEPA RSL Composite Worker Soil Table. Therefore, exceedances for PAHs are based on the adjusted PALs rather than those presented in the QAPP. Nine SVOCs were detected above their respective PALs: 1,1-biphenyl, 2,6-dinitrotoluene, benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene, and naphthalene. Benzo[a]pyrene was the most common PAL exceedance and was detected above the PAL in 34 total samples, with a maximum detection of 1,600 mg/kg in sample B18-029-SB-4. The SVOC PAL exceedance locations and results are provided on **Figure SB2**.

Shallow soil samples collected across the Site from the 0 to 1 foot bgs interval were analyzed for PCBs. If concrete or other clean surface materials were observed at the ground surface, the shallow sample was shifted to include the first 1-foot of the underlying soil. **Table 6** provides a summary of the PCBs detected above the laboratory's MDLs. There was only one sample with a

PAL exceedance. Total PCBs exceeded its PAL in sample B18-017-SB-1, with a detection of 1.005 mg/kg. This PCB PAL exceedance is provided on **Figure SB3**.

Table 6 provides a summary of the TPH/Oil & Grease detections above the laboratory's MDLs in the soil samples collected across the Site. None of the detections of GRO exceeded the PAL of 6,200 mg/kg. DRO exceeded the PAL of 6,200 mg/kg in two samples, B18-029-SB-4 and B18-047-SB-4, with detections of 106,000 mg/kg and 14,700 mg/kg, respectively. Oil & Grease was detected above the PAL of 6,200 mg/kg in five soil samples. The maximum detection of Oil & Grease in the parcel was 89,000 mg/kg also in sample B18-029-SB-4. The TPH/Oil & Grease PAL exceedance locations and results are provided on **Figure SB4**. In addition, there were 10 borings where physical evidence of NAPL was identified in the soil cores (B18-017-SB, B18-029-SB, B18-034-SB, B18-044-SB, B18-045-SB, B18-046-SB, B18-047-SB, B18-059-SB, B18-074-SB, and B18-077-SB). These boring locations with evidence of NAPL are also highlighted on **Figure SB4**, and the observations of NAPL are discussed in greater detail in Section 4.3.

4.1.2. Soil Conditions: Inorganic Constituents

Table 7 provides a summary of inorganic constituents detected above the laboratory's MDLs in the soil samples collected from across the Site. Five inorganic constituents (arsenic, hexavalent chromium, lead, manganese, and thallium) were detected above their respective PALs. Arsenic was by far the most common inorganic exceedance and was detected above the PAL in 64 (approximately 50%) of the soil samples analyzed for this compound. The maximum detection of arsenic was 50.3 mg/kg in B18-030-SB-1.5. In comparison, hexavalent chromium, lead, manganese, and thallium accounted for PAL exceedances in a total of four samples, eight samples, 24 samples, and 15 samples, respectively. The maximum detection of hexavalent chromium (93.2 mg/kg) was identified in sample B18-008-SB-1. The maximum detection of lead (9,580 mg/kg) was identified in sample B18-043-SB-5. The maximum detection of manganese (45,000 mg/kg) was identified in sample B18-027-SB-1. The maximum detection of thallium (17.7 mg/kg) was identified in sample B18-034-SB-1. The inorganic PAL exceedance locations and results are provided on **Figure SB5**.

4.1.3. Soil Conditions: Results Summary

Table 6 and **Table 7** provide summaries of the detected organic compounds and inorganics in the soil samples submitted for laboratory analysis, and **Figure SB1** through **Figure SB5** present the soil sample locations and results that exceeded the PALs. **Table 8** provides a summary of results for all PAL exceedances in soil, including maximum values and detection frequencies for each constituent. **Table 9** indicates which soil impacts (PAL exceedances) are associated with the specific targets listed in the Parcel B18 Work Plan. PAL exceedances in soil within Parcel B18 consisted of two VOCs (benzene and ethylbenzene), nine SVOCs (1,1-biphenyl, 2,6-dinitrotoluene, benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene,

dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene, and naphthalene), total PCBs, DRO, Oil & Grease, and five inorganics (arsenic, hexavalent chromium, lead, manganese, and thallium).

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

- Concentrations of total PCBs did not exceed the specified threshold of 50 mg/kg in any soil samples collected at the Site.

- One soil sample, B18-043-SB-5, contained an elevated concentration of lead of 9,580 mg/kg. This lead concentration did not exceed the specified lead delineation threshold of 10,000 mg/kg; however, delineation of this location was deemed necessary and a Work Plan for the Delineation/Characterization of Lead Impacted Soil at B18-043-SB (dated February 16, 2018) was approved on February 27, 2018 and has since been implemented to identify the extent of soil lead contamination in this area. The delineation activities were completed outside of the scope of this Phase II Investigation and are reported under separate cover in the Delineation Results Interim Submittal dated September 5, 2018. A final Supplemental Investigation Report is forthcoming.

- There were no locations where detections of GRO exceeded 6,200 mg/kg. DRO was detected above 6,200 mg/kg in two soil samples: B18-029-SB-4 and B18-047-SB-4. Oil & Grease was detected above 6,200 mg/kg in five soil samples: B18-029-SB-4, B18-046-SB-8, B18-047-SB-4, B18-049-SB-1, and B18-050-SB-5. In addition, there were 10 boring locations where physical evidence of NAPL was identified in the associated soil cores (B18-017-SB, B18-029-SB, B18-034-SB, B18-044-SB, B18-045-SB, B18-046-SB, B18-047-SB, B18-059-SB, B18-074-SB, and B18-077-SB). These locations are discussed in greater detail in Section 4.3. Each identified location should be considered for proximity to proposed utilities in any future development plans.

4.2. GROUNDWATER CONDITIONS

The analytical results for the detected parameters in groundwater are summarized and compared to the PALs in **Table 10** (Organics) and **Table 11** (Inorganics). The laboratory Certificates of Analysis (including Chains of Custody) and DVRs have been included as electronic attachments. The DVRs contain a glossary of qualifiers for the final flags assigned to individual results in the attached summary tables.

4.2.1. Groundwater Conditions: Organic Compounds

Table 10 provides a summary of VOCs identified in groundwater samples above the laboratory's MDLs. Six VOCs were detected in groundwater above their aqueous PALs: 1,1-dichloroethane, 1,1-dichloroethene, benzene, bromodichloromethane, chloroform, and dibromochloromethane. Chloroform was the most common VOC exceedance and was detected above the PAL at six groundwater sample locations, with a maximum concentration of 12.5 µg/L at B18-071-PZ. The VOC PAL exceedance locations and results are provided on **Figure GW1**.

Table 10 provides a summary of SVOCs identified in groundwater samples above the laboratory's MDLs. Similar to the evaluation of the soil data, the PALs for relevant PAHs have been adjusted upward based on revised toxicity data published in the USEPA RSL Resident Tapwater Table. Four SVOCs were detected above their respective aqueous PALs: 1,1-biphenyl, 1,4-dioxane, benz[a]anthracene, and naphthalene. Naphthalene had the largest number of PAL exceedances, with a total of six detections above the applicable PAL. The maximum concentration of naphthalene was 411 µg/L detected at B18-007-PZ. The SVOC PAL exceedance locations and results are provided on **Figure GW2**.

Table 10 provides a summary of the TPH/Oil & Grease detections in groundwater at the Site. DRO was detected above its PAL at all 10 of the groundwater sample locations, with a maximum detection of 4,330 µg/L at B18-071-PZ. GRO was detected above the PAL at two locations (B18-007-PZ and B18-074-PZ), with a maximum detection of 294 µg/L at B18-007-PZ. Oil & Grease was detected above the PAL at two locations (B18-061-PZ and B18-072-PZ), with a maximum detection of 35,900 µg/L at B18-061-PZ. The TPH/Oil & Grease PAL exceedance locations and results are provided on **Figure GW3**. Each location was checked for the potential presence of NAPL using an oil-water interface probe after installation and again prior to sampling. During these checks, trace NAPL was detected at two of the groundwater sample locations following their installation (B18-046-PZ and B18-077-PZ). The presence of NAPL at the Site is discussed in greater detail in Section 4.3.

4.2.2. Groundwater Conditions: Inorganic Constituents

Table 11 provides a summary of inorganic constituents detected above the MDLs in the groundwater samples collected from across the Site. Three inorganic compounds were detected in groundwater above their aqueous PALs: dissolved cobalt, dissolved iron, and dissolved manganese. All three dissolved metals exceeded their respective PALs at B18-070-PZ and B18-075-PZ. The maximum detections of cobalt (59.9 µg/L) and iron (36,000 µg/L) were both at B18-070-PZ. The maximum detection of manganese (1,630 µg/L) was at B18-075-PZ. The inorganic PAL exceedance locations and results are provided on **Figure GW4**.

4.2.3. Groundwater Conditions: Results Summary

Table 10 and **Table 11** provide summaries of the detected organic compounds and inorganics in the groundwater samples submitted for laboratory analysis, and **Figure GW1** through **Figure GW4** present the locations and aqueous results that exceeded the PALs. Aqueous PAL exceedances among the groundwater samples collected during this Parcel B18 Phase II Investigation consisted of six VOCs (1,1-dichloroethane, 1,1-dichloroethene, benzene, bromodichloromethane, chloroform, and dibromochloromethane), four SVOCs (1,1-biphenyl, 1,4-dioxane, benz[a]anthracene, and naphthalene), DRO, GRO, Oil & Grease, and three dissolved metals (cobalt, iron, and manganese).

Groundwater data were screened to determine whether individual sample results may exceed the USEPA Vapor Intrusion (VI) Screening Levels (Target Cancer Risk (TCR) of 1E-5 and Target Hazard Quotient (THQ) of 1) as determined by the Vapor Intrusion Screening Level (VISL) Calculator version 3.5 (https://www.epa.gov/vaporintrusion/vapor-intrusion-screening-levels-visls). The PALs specified in the QAPP are based upon drinking water use, which is not a potential exposure pathway for groundwater at the Site.

Only one aqueous result exceeded the individual VI TCR or THQ criteria specified by the VISL Calculator. The maximum naphthalene detection of 411 µg/L at B18-007-PZ exceeds the TCR screening level of 200 µg/L. Following the initial screening, a cumulative VI risk assessment was also performed for each individual sample location, with the results separated by cancer risk versus non-cancer hazard. All compounds with detections were included in the computation of the cumulative cancer risk, and all compounds with detections exceeding 10% of the THQ level were included in the evaluation of non-cancer hazard. One location (B18-007-PZ) exceeded a cumulative VI cancer risk of 1E-5, due primarily to elevated detections of naphthalene and benzene at this sample location. There were no compounds that were identified above the 10% THQ level to be included in the cumulative VI evaluation for non-cancer hazard. The results of the cumulative VI comparisons are provided in **Table 12**.

The presence and absence of groundwater impacts within the Site boundaries have been adequately described. Groundwater is not used on the Tradepoint Atlantic property (and is not proposed to be utilized). Location B18-007-PZ exhibited concentrations of VOCs/SVOCs, in particular benzene and naphthalene, which could present a potential VI risk if a structure were to be proposed in this area. Potential VI risks will be evaluated in a Response and Development Work Plan for any such proposed work. The VI evaluation will include, as applicable, the groundwater findings obtained during this Phase II Investigation as well as the findings of the preceding Area B Groundwater Investigation (reported within the Area B Groundwater Phase II Investigation Report dated September 30, 2016) and the supplemental groundwater investigation in the No. 10 Tank Area near the western property boundary (reported within the No. 10 Tank Area Investigation Report dated January 6, 2020).

4.3. SUMMARY OF NAPL OBSERVATIONS

Soil cores were screened for evidence of possible NAPL contamination during the completion of this investigation. During the field screening, 10 locations (B18-017-SB, B18-029-SB, B18-034-SB, B18-044-SB, B18-045-SB, B18-046-SB, B18-047-SB, B18-059-SB, B18-074-SB, and B18-077-SB) had observations of physical evidence of NAPL in the soil cores. These locations are highlighted on **Figure SB4**, and the specific observations are provided on the soil boring logs (**Appendix B**). The majority of the NAPL detections are positioned in the western portion of the Site where numerous tanks were historically located. Piezometers were installed at nine of the locations where NAPL was identified. A piezometer was not installed at location B18-029-SB due to shallow equipment refusal.

Based on the observations of NAPL and in accordance with the Parcel B18 Work Plan, temporary NAPL screening piezometers were installed at B18-017-PZ, B18-034-PZ, B18-044-PZ, B18-045-PZ, B18-047-PZ, and B18-059-PZ. Piezometers were already specified to be installed at B18-046-PZ, B18-074-PZ, and B18-077-PZ to facilitate the collection of groundwater samples, but based on the evidence of NAPL observed in the soil cores these locations are also considered to be NAPL screening piezometers. Each NAPL screening piezometer was installed in accordance with standard specifications for temporary groundwater sample collection points. The piezometer construction logs are provided in **Appendix B**.

The piezometers were checked for the presence of NAPL using an oil-water interface probe immediately after installation, approximately 48 hours after installation, and again after at least 30 days. Supplemental gauging checks have also been completed periodically. NAPL and water level measurements from each of the gauging events have been provided in **Appendix G**. This attachment also includes the specific installation date and abandonment date (if applicable) of each of the screening piezometers, as well as relevant construction details (screen intervals, total depths, etc.). Significant NAPL thicknesses have been detected at B18-045-PZ, which is located in the No. 10 Tank Area. Substantial supplemental investigation work has already been completed in the No. 10 Tank Area outside of the scope of the Phase II Investigation (as reported within the No. 10 Tank Area Investigation Report dated January 6, 2020) and NAPL impacts are known to exist in this area. Trace NAPL was also detected periodically at B18-044-PZ, B18-046-PZ, B18-047-PZ, B18-077-PZ but has not been consistently observed.

In addition to the boring locations with physical evidence of NAPL observed in the soil cores, analytical results exceeded the Oil & Grease and/or DRO PAL of 6,200 mg/kg in one shallow sample (B18-049-SB-1), and four intermediate samples (B18-029-SB-4, B18-046-SB-8, B18-047-SB-4, B18-050-SB-5). Three of the locations with elevated analytical detections (B18-029-SB, B18-046-SB, and B18-047-SB) corresponded to the locations with physical evidence of NAPL. The impacted borings (i.e., those with physical evidence of NAPL or elevated analytical detections) should be evaluated for proximity to proposed utilities in any future development planning for Parcel B18.

4.4. SUB-SLAB SOIL GAS CONDITIONS

The VOCs detected in the sub-slab soil gas samples collected from below the Kinder Morgan Warehouse are summarized and compared to the PALs in **Table 13**. The laboratory Certificates of Analysis (including the Chains of Custody) and the DVR have been included as electronic attachments. The DVR contains a glossary of qualifiers for the final flags assigned to individual results in the attached summary table.

While there were multiple VOCs detected in the sub-slab soil gas samples, none of the detections exceeded the applicable PALs. It is notable that one sample (B18-063-SG) was collected at the western end of the warehouse in the vicinity of the groundwater sample which had exhibited an elevated cumulative VI cancer risk (B18-007-PZ). These sub-slab soil gas results indicate that potential impacts by VOCs below the building slab appear to be minimal, and there is an apparent insignificant VI risk due to VOCs.

5.0 DATA USABILITY ASSESSMENT

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

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

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

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

5.1. DATA VERIFICATION

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

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

5.2. DATA VALIDATION

USEPA Stage 2B data validation was completed for a representative 50% of the environmental sample analyses performed by PACE and supporting Level IV Data Package information by Environmental Data Quality Inc. (EDQI). The DVRs provided by EDQI have been included as electronic attachments.

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

The PACE-Greensburg (PA) laboratory facility implements quality assurance and reporting requirements through the TNI certification program with the State of Pennsylvania; which is accepted by Maryland. Since late-January 2017, these requirements include the flagging of contaminants with a "B" qualifier when an analyte is detected in an associated laboratory method blank, regardless of the level of the contaminant detected in the sample. A method blank is analyzed at a rate of one blank for each 20 sample analytical batch. The USEPA has previously

specified that results flagged with the "B" qualifier do not represent legitimate detections. They have also specified that results flagged with a "JB" qualifier are invalid, and any such results should be revised to display the "B" qualifier only.

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

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

RL = Reporting Limit

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

5.3. DATA USABILITY

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

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

flags indicate whether particular data points were quantitative estimates, biased high/low, associated with blank contamination, etc. Individual data flags are provided with the results in the detection summary tables. A qualifier code glossary is included with each DVR provided by EDQI. Particular results may have been marked with the "R" flag if the result was deemed to be unreliable and was not included in any further data evaluation. **Table 14** provides a list of the analytical soil results that were rejected during data validation. None of the groundwater or sub-slab soil gas sampling results were rejected during validation. A discussion of data completeness (the proportion of valid data) is included below.

Representativeness is a measure of how accurately and precisely the data describe the Site conditions. Representativeness of the samples submitted for analysis was ensured by adherence to standard sampling techniques and protocols, as well as appropriate sample preservation prior to analysis. Sampling was conducted in accordance with the QAPP Worksheet 21 – Field SOPs and Appendix A of the QAPP. Specific Field SOPs applicable to the assessment of representativeness include **Field SOP Numbers 002, 006, 008, 009, 010, 011, 017, and 024**. Review of the field notes and laboratory sample receipt records indicated that collection of soil, groundwater, and sub-slab soil gas at the Site was representative, with no significant deviations from the SOPs.

Comparability describes the degree of confidence in comparing two sets of data. Comparability is maintained across multiple datasets by the use of consistent sampling and analytical methods across multiple project phases. Comparability of sample results was ensured through the use of approved standard sampling and analysis methods outlined in the QAPP. QA/QC protocols help to maintain the comparability of datasets, and in this case were assessed via blind duplicates, blank samples, and spiked samples, where applicable. No significant deviations from the QAPP were noted in the dataset.

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

Completeness is expressed as a ratio of the number of valid data points to the total number of analytical data results. Non-usable ("R" flagged) data results were determined through the data validation process. The approved QAPP specifies that the completeness of data is assessed by professional judgement but should be greater than or equal to 90%. Data completeness for each compound is provided in **Appendix I**. This evaluation of completeness includes only the representative 50% of sample results which were randomly selected for validation. All of the groundwater and sub-slab soil gas sampling results had completeness ratios of 100%.

A total of 14 analytes did not meet the completeness goal of 90% for soils in Parcel B18. Among these compounds, 11 acid extractable SVOCs (2,3,4,6-tetrachlorophenol, 2,4,5-trichlorophenol, 2,4,6-trichlorophenol, 2,4-dichlorophenol, 2,4-dimethylphenol, 2,4-dinitrophenol, 2-chlorophenol, 2-methylphenol, 3&4-methylphenol (m&p cresol), phenol, and pentachlorophenol) had completeness values between 47% and 58%. Some of the results for these compounds were rejected due to poor recoveries, which are believed to be due to the highly alkaline conditions typical of slag fill. These compounds are generally not expected to be site-related contaminants and have not been detected above the PALs in soils on the Tradepoint Atlantic property. These are not considered to be significant data gaps.

Bromomethane, benzaldehyde, and 1,4-dioxane were the only remaining compounds with completeness ratios of less than 100%. Bromomethane and benzaldehyde had completeness ratios of 83% and 79%, respectively, indicating that relatively few results were rejected for these compounds. The full dataset of 1,4-dioxane soil results which underwent the validation process was rejected. The rejection of the soil results for 1,4-dioxane has not been uncommon for data obtained from the property. In addition, sufficient information is available in the groundwater dataset (100% completeness) to evaluate the significance of these contaminants at the Site.

Overall, the data can be used as intended, and significant data gaps were not identified. While a limited set of compounds did not meet the completeness goal of 90%, these compounds do not appear to be significant contaminants at the Site.

6.0 FINDINGS AND RECOMMENDATIONS

The objective of this Phase II Investigation was to characterize the nature and extent of contamination at the Site. During the Phase II Investigation, a total of 127 soil samples (all locations/depths), 10 groundwater samples, and four sub-slab soil gas samples were collected and analyzed to define the nature and extent of contamination in Parcel B18. The sampling and analysis plan for the parcel was developed to target specific features which represented a potential release of hazardous substances and/or petroleum products to the environment. Soil samples were analyzed for VOCs, SVOCs, TPH-DRO/GRO, Oil & Grease, TAL-Metals, hexavalent chromium, and cyanide. Shallow soil samples (0 to 1 foot bgs) were also analyzed for PCBs. Groundwater samples were analyzed for VOCs, SVOCs, TPH-DRO/GRO, Oil & Grease, TAL-Dissolved Metals, dissolved hexavalent chromium, and total cyanide. Sub-slab soil gas samples were analyzed for VOCs.

6.1. SOIL

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

PCB concentrations are below the levels that would warrant evaluation of a removal remedy. There were no concentrations of total PCBs identified above the mandatory delineation criterion of 50 mg/kg, indicating that further action is not needed. There was one soil sample (B18-043-SB) with an elevated concentration of lead slightly below 10,000 mg/kg, the designated threshold at which delineation would be required. Sample B18-043-SB-5 had a detected lead concentration of 9,580 mg/kg. Supplemental work was determined to be necessary in this area, and a Work Plan for the Delineation/Characterization of Lead Impacted Soil at B18-043-SB (dated February 16, 2018) was approved on February 27, 2018 and has since been implemented to identify the extent of soil lead contamination in this area. The delineation activities were completed outside of the scope of this Phase II Investigation and are reported under separate cover in the Delineation Results Interim Submittal dated September 5, 2018. A final Supplemental Investigation Report is forthcoming. Any future additional reporting will be covered outside of this Phase II Investigation Report to avoid the need for continued updates.

Exceedances of the PALs in soil within Parcel B18 consisted of five inorganics (arsenic, hexavalent chromium, lead, manganese, and thallium), two VOCs (benzene and ethylbenzene), nine SVOCs (1,1-biphenyl, 2,6-dinitrotoluene, benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene, and naphthalene), total PCBs, DRO, and Oil & Grease. Arsenic exceeded its PAL in the largest proportion of the samples analyzed site-wide. Arsenic was detected in 57% of samples (and above the PAL in 50% of samples), with a maximum detection of 50.3 mg/kg in sample B18-030-SB-1.5. The remaining inorganic exceedances were less common in comparison. Both

benzene and ethylbenzene were detected above their respective PALs in only one sample, B18-029-SB-4. Of the nine listed SVOCs that exceeded their respective PALs, benzo[a]pyrene was the most common, with 34 total PAL exceedances and a maximum detection of 1,600 mg/kg also in sample B18-029-SB-4. There was only one sample which exceeded the PAL for total PCBs (B18-017-SB-1) with a detection of 1.005 mg/kg. Petroleum impacts, including a discussion of the analytical exceedances of the DRO and Oil & Grease PALs as well as borings with physical evidence of NAPL in the soil cores, are further discussed in Section 6.3.

6.2. GROUNDWATER

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

Exceedances of the aqueous PALs in shallow groundwater below Parcel B18 consisted of three dissolved metals (cobalt, iron, and manganese), six VOCs (1,1-dichloroethane, 1,1-dichloroethene, benzene, bromodichloromethane, chloroform, and dibromochloromethane), four SVOCs (1,1-biphenyl, 1,4-dioxane, benz[a]anthracene, and naphthalene), DRO, GRO, and Oil & Grease. The maximum detections of cobalt (59.9 µg/L) and iron (36,000 µg/L) were both at B18-070-PZ. The maximum detection of manganese (1,630 µg/L) was at B18-075-PZ. Chloroform was the most common VOC PAL exceedance, with a maximum detection (12.5 µg/L) at B18-071-PZ. Most groundwater sample locations exhibited at least one SVOC exceedance. Naphthalene was the most common SVOC PAL exceedance, detected above the PAL at six groundwater sample locations with a maximum detection (411 µg/L) at B18-007-PZ. DRO exceeded its PAL in every groundwater sample, with a maximum detection (4,330 µg/L) at B18-071-PZ. GRO exceeded the PAL in two samples, with a maximum detection (294 µg/L) at B18-007-PZ. Oil & Grease also exceeded its PAL in two samples, with a maximum detection (35,900 µg/L) at B18-061-PZ. Each location was checked for the potential presence of NAPL using an oil-water interface probe after installation and again prior to sampling. During these checks, trace NAPL was detected at two piezometer locations (B18-046-PZ and B18-077-PZ).

Groundwater is not used on the Tradepoint Atlantic property (and is not proposed to be utilized); therefore, there is no potential for direct human exposure for a Composite Worker. In the event that future construction/excavation leads to a potential Construction Worker exposure to groundwater, health and safety plans should be implemented to limit exposure risk. The groundwater data were screened to determine whether any cumulative (or individual) sample results exceeded the USEPA VI TCR (carcinogen) or THQ (non-carcinogen) Screening Levels. The maximum naphthalene detection of 411 µg/L at B18-007-PZ exceeds the TCR screening level of 200 µg/L. When the aqueous results were summed by sample location, one sample (B18-007-PZ) exceeded a cumulative VI cancer risk of 1E-5, due primarily to elevated detections of naphthalene and benzene. None of the cumulative VI non-cancer HI values exceeded 1 at any location.

It should be noted that recent aerial imagery appears to show an existing structure at the location of B18-007-PZ. This structure is an unenclosed pavilion that shelters equipment; there is no VI risk in this structure. Potential VI risks will be evaluated in a Response and Development Work Plan if a future enclosed structure is proposed at the Site. The VI evaluation will include, as applicable, the groundwater findings obtained during this Phase II Investigation as well as the findings of the preceding Area B Groundwater Investigation (reported within the Area B Groundwater Phase II Investigation Report dated September 30, 2016) and the supplemental groundwater investigation in the No. 10 Tank Area near the western property boundary (reported within the No. 10 Tank Area Investigation Report dated January 6, 2020).

6.3. NAPL

There were five soil samples with elevated detections of Oil & Grease and/or DRO reported above the PAL (6,200 mg/kg) at the Site: B18-029-SB-4, B18-046-SB-8, B18-047-SB-4, B18-049-SB-1, and B18-050-SB-5. These PAL exceedances could be indicative of NAPL impacts. Physical evidence of NAPL was also observed in three of the associated soil cores (B18-029-SB, B18-046-SB, and B18-047-SB).

During field screening of the soil cores installed during this investigation, 10 borings (B18-017-SB, B18-029-SB, B18-034-SB, B18-044-SB, B18-045-SB, B18-046-SB, B18-047-SB, B18-059-SB, B18-074-SB, and B18-077-SB) had visible observations of NAPL in the soil cores. The specific observations of NAPL are provided on the soil boring logs (**Appendix B**). The potential mobility of NAPL to groundwater at the Site was evaluated via the installation and gauging of NAPL screening piezometers at locations B18-017-SB, B18-034-SB, B18-044-SB, B18-045-SB, B18-046-SB, B18-047-SB, B18-059-SB, B18-074-SB, and B18-077-SB. A piezometer was not installed at location B18-029-SB due to shallow equipment refusal.

Based on the gauging measurements of each screening piezometer using an oil-water interface probe (see **Appendix G**), significant quantities of NAPL were detected at B18-045-PZ, which is located in the No. 10 Tank Area. Substantial supplemental investigation work has already been completed in the No. 10 Tank Area outside of the scope of the Phase II Investigation (as reported within the No. 10 Tank Area Investigation Report dated January 6, 2020) and NAPL impacts are known to exist in this area. Trace NAPL was also detected periodically at B18-044-PZ, B18-046-PZ, B18-047-PZ, B18-077-PZ but has not been consistently observed. The other NAPL screening piezometers, and temporary groundwater sample collection points installed in Parcel B18, did not show any evidence of NAPL.

No additional action is recommended at this time with respect to NAPL in Parcel B18; however, the borings identified with evidence of NAPL and/or elevated analytical detections of TPH/Oil & Grease should be evaluated for proximity to proposed utilities in any future development planning. The piezometers remaining at the Site are proposed to be abandoned at this time.

6.4. SUB-SLAB SOIL GAS

The nature and extent of constituents in sub-slab soil gas have been adequately characterized by the Phase II Investigation. While there were several VOCs detected in the sub-slab soil gas samples collected during this investigation below the Kinder Morgan Warehouse, none of the detections exceeded the applicable PALs in any of the samples. B18-063-SG was collected at the western end of the warehouse in the vicinity of the groundwater sample which had exhibited an elevated cumulative VI cancer risk (B18-007-PZ). Further investigation is not recommended based on the documentation of minimal impacts below the building slab, and the apparent insignificant VI risk from VOCs.

6.5. RECOMMENDATIONS

Sufficient remedial investigation data has been collected to present this evaluation of the nature and extent of possible constituents of concern in Parcel B18. The presence and absence of soil, groundwater, and sub-slab soil gas impacts within Parcel B18 have been adequately described and further site-wide investigation is not warranted to characterize overall conditions. Recommendations for the Site are as follows:

- Soil boring locations with physical evidence of NAPL and/or elevated analytical detections of TPH/Oil & Grease (B18-017-SB, B18-029-SB, B18-034-SB, B18-044-SB, B18-045-SB, B18-046-SB, B18-047-SB, B18-049-SB, B18-050-SB, B18-059-SB, B18-074-SB, and B18-077-SB) should be considered for proximity to proposed utilities in any future development plans. The majority of the identified borings are positioned in the western portion of the Site where numerous tanks were historically located. Substantial supplemental investigation work has already been completed in the No. 10 Tank Area outside of the scope of the Phase II Investigation (as reported within the No. 10 Tank Area Investigation Report dated January 6, 2020) and NAPL impacts were identified in soil and groundwater in this area. If future utilities are proposed in the vicinity of these borings or the No. 10 Tank Area, protocols for the mitigation of potential product (NAPL) mobility should be specified in a Response and Development Work Plan.

- Elevated lead contamination was identified in soil at B18-043-SB-5 with a concentration of 9,580 mg/kg, which is slightly below the established lead delineation threshold of 10,000 mg/kg. Delineation activities were determined to be necessary surrounding this location and a Work Plan for the Delineation/Characterization of Lead Impacted Soil at B18-043-SB (dated February 16, 2018) was subsequently prepared and was approved on February 27, 2018. The investigation activities outlined in that Work Plan have since been implemented outside of the scope of this Phase II Investigation and are reported under separate cover in the Delineation Results Interim Submittal dated September 5, 2018. A final Supplemental Investigation Report is forthcoming. Any future additional reporting will be covered outside of this Phase II Investigation Report.

- An elevated VI cancer risk was calculated at B18-007-PZ due primarily to high detections of naphthalene and benzene in groundwater. The existing structure in this area (an unenclosed pavilion) does not present a VI risk. However, if a future enclosed structure is proposed for construction within Parcel B18, the potential VI risks will be evaluated in a Response and Development Work Plan. The VI evaluation will include, as applicable, the groundwater findings obtained during this Phase II Investigation as well as the findings of the preceding Area B Groundwater Investigation (reported within the Area B Groundwater Phase II Investigation Report dated September 30, 2016) and the supplemental groundwater investigation in the No. 10 Tank Area near the western property boundary (reported within the No. 10 Tank Area Investigation Report dated January 6, 2020).

7.0 REFERENCES

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FIGURES


Site Boundary
Parcel Boundaries
Private Property
Parcel A9
Parcel A5
Parcel A13
Parcel A7
Parcel A14
Parcel A11
Parcel A8
Parcel A12
Parcel A15
Parcel A2
Parcel A17
Parcel A18
Parcel A16
Parcel A6
Parcel A4
Parcel A10
Parcel A3
Parcel A1
Parcel B6
Parcel B8
Parcel B14
Parcel B22
Parcel B16
Parcel B21
Parcel B15
Parcel B24
Parcel B23
Parcel B25
Parcel B7
Parcel B1
Parcel B2
Parcel B3
Parcel B17
Parcel B19
Parcel B4
Parcel B5
Parcel B9
Parcel B18
Parcel B10
Parcel B13
Parcel B20
Parcel B11
Parcel B12
Tradepoint Atlantic
Area A and Area B Parcels
March 4, 2020
Figure
1
ARM Group LLC
Engineers and Scientists
0 500 1,000 2,000
Feet
Tradepoint Atlantic
Baltimore County, MD
EnviroAnalytics Group
Area A: Project 200101
Area B: Project 200102

Site Boundary

Parcel Boundaries

1916 Shoreline:

Land

Marsh

Water

Parcel A9

Parcel A5

Parcel A13

Parcel A7

Parcel A14

Greys Creek

Bear Creek

Parcel A11

Parcel A8

Parcel A12

Parcel A2

Parcel A15

Parcel A17

Parcel A18

Parcel A16

Parcel A6

Parcel A3

Parcel A4

Parcel A10

Parcel A1

Parcel B6

Humphrey Creek

Parcel B8

Parcel B14

Parcel B21

Parcel B22

Parcel B16

Parcel B15

Parcel B24

Parcel B23

Parcel B25

Old Road Bay

Block House Cove

Parcel B7

Jones Creek

Parcel B1

Parcel B2

Parcel B3

Parcel B17

Parcel B19

Parcel B4

Parcel B5

Parcel B9

Parcel B18

Parcel B10

Parcel B13

Parcel B20

Parcel B11

Parcel B12

Patapsco River

Approximate Shoreline 1916

March 4, 2020

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

Figure 2

ARM Group LLC
Engineers and Scientists

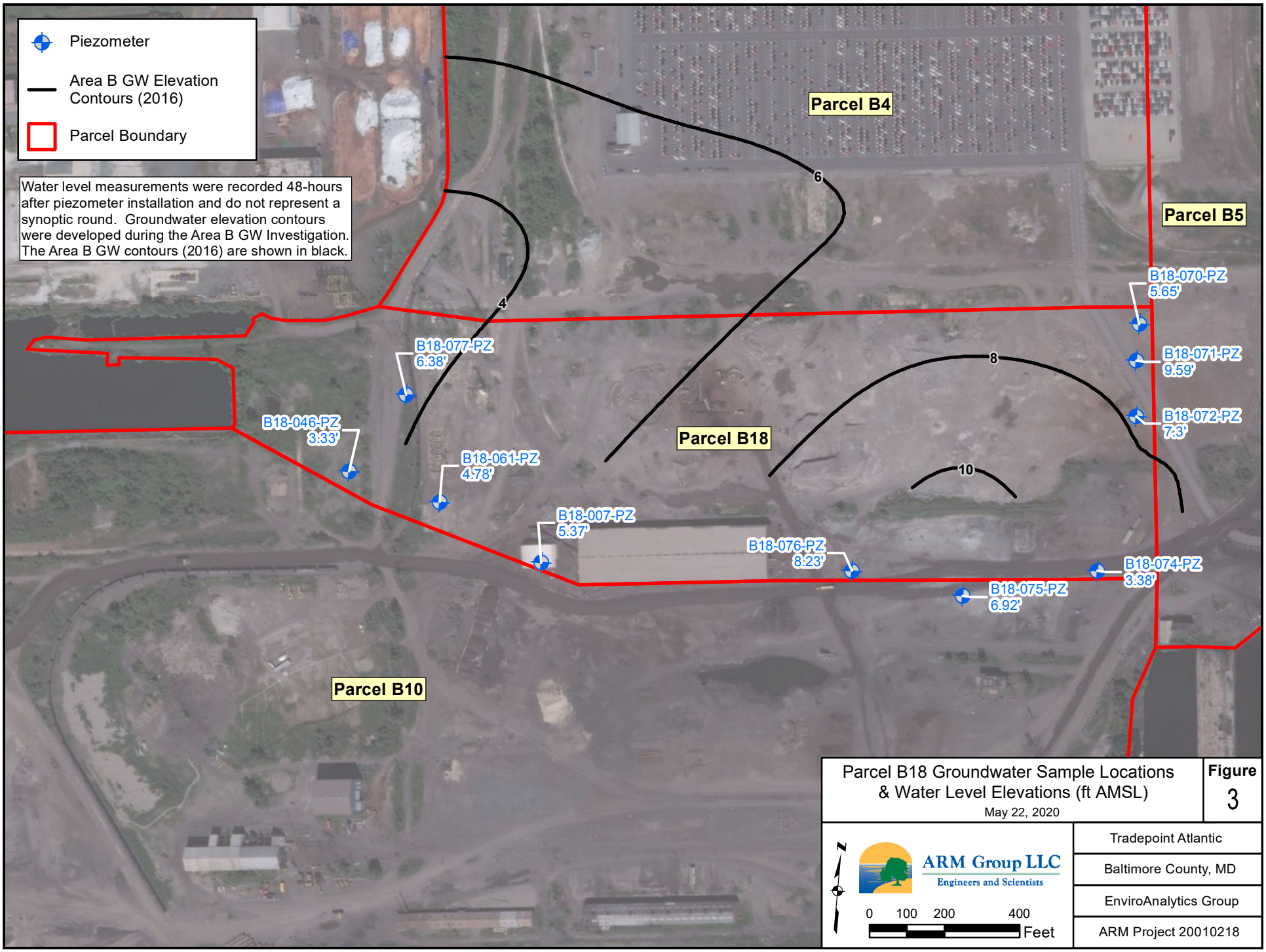
0 500 1,000 2,000 Feet

Tradepoint Atlantic

Baltimore County, MD

EnviroAnalytics Group

Area A: Project 200101
Area B: Project 200102



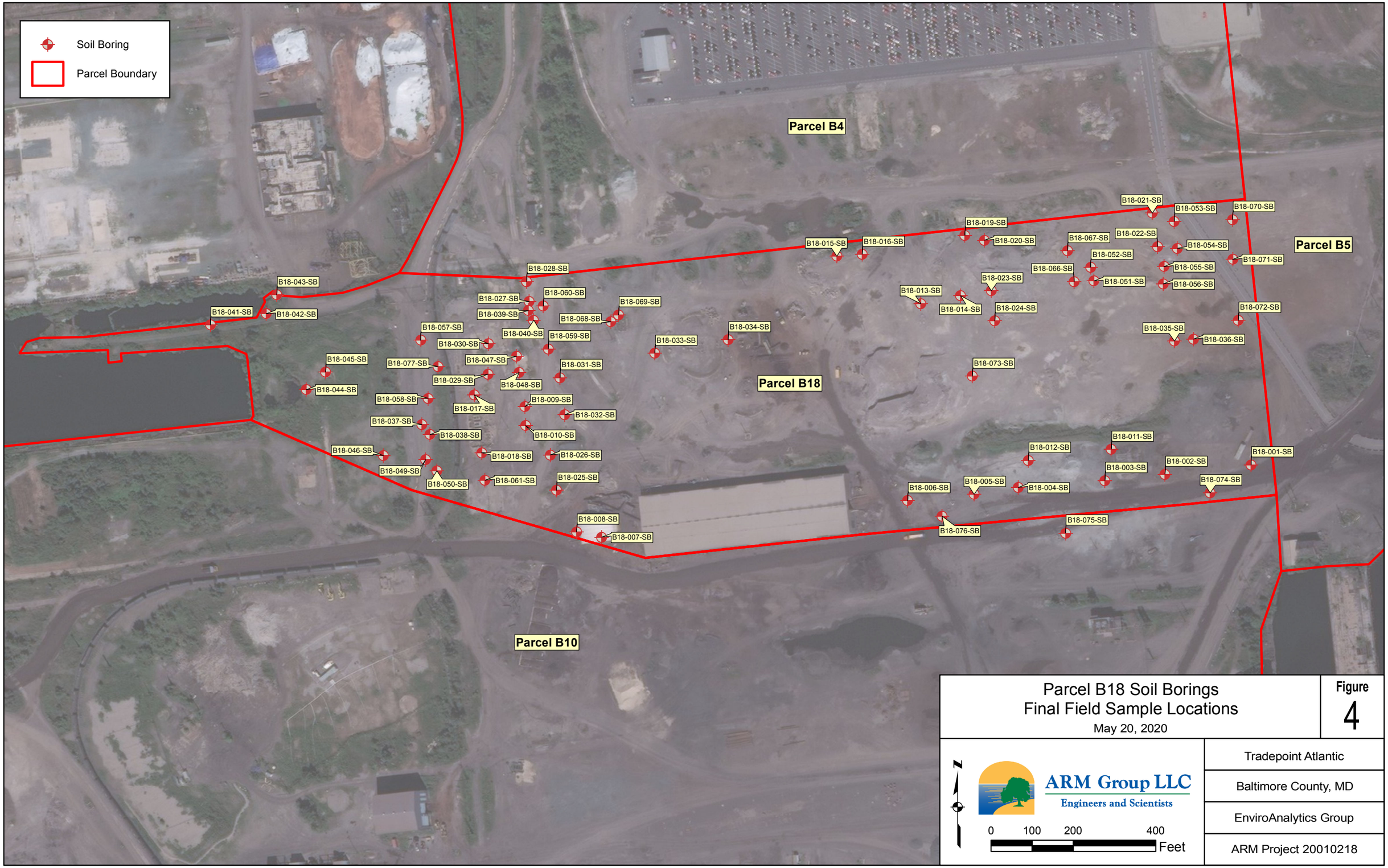
Parcel B18 Groundwater Sample Locations & Water Level Elevations (ft AMSL)

May 22, 2020

Figure 3

ARM Group LLC
Engineers and Scientists

Tradepoint Atlantic
Baltimore County, MD
EnviroAnalytics Group
ARM Project 20010218



Parcel B18 Soil Borings
Final Field Sample Locations

May 20, 2020

Figure 4

N

ARM Group LLC
Engineers and Scientists

0 100 200 400 Feet

Tradepoint Atlantic

Baltimore County, MD

EnviroAnalytics Group

ARM Project 20010218


Sub-Slab Soil Gas
Building
Parcel Boundary
Kinder Morgan Warehouse
Parcel B18
B18-062-SG
B18-065-SG
B18-064-SG
B18-063-SG
Parcel B10
Parcel B18 Sub-Slab Soil Gas
Final Field Sample Locations
May 21, 2020
Figure
5
ARM Group LLC
Engineers and Scientists
0 25 50 100
Feet
Tradepoint Atlantic
Baltimore County, MD
EnviroAnalytics Group
ARM Project 20010218

Parcel B18 Soil Borings
Phase II VOC PAL Exceedances (mg/kg)
May 20, 2020

Figure
SB1

N

ARM Group LLC
Engineers and Scientists

0 100 200 400
Feet

Tradepoint Atlantic

Baltimore County, MD

EnviroAnalytics Group

ARM Project 20010218

Soil Boring

Parcel Boundary

Parcel B4

Parcel B5

Parcel B18

Parcel B10

B18-043-SB-1
Benzo[a]pyrene: 4.1

B18-043-SB-5
Benzo[a]pyrene: 8.9

B18-042-SB-1
Benzo[a]pyrene: 2.2

B18-042-SB-5

B18-041-SB-1
Benzo[a]pyrene: 5.7

B18-041-SB-7.5
Benzo[a]pyrene: 6.2

B18-029-SB-2
Benz[a]anthracene: 362
Benzo[a]pyrene: 145
Benzo[b]fluoranthene: 557
Benzo[k]fluoranthene: 503
Dibenz[a,h]anthracene: 38.3
Indeno[1,2,3-c,d]pyrene: 90.6
Naphthalene: 59.6

B18-029-SB-4
1,1-Biphenyl: 5,760
2,6-Dinitrotoluene: 2.7
Benz[a]anthracene: 1,920
Benzo[a]pyrene: 1,600
Benzo[b]fluoranthene: 2,880
Benzo[k]fluoranthene: 2,600
Dibenz[a,h]anthracene: 188
Indeno[1,2,3-c,d]pyrene: 567
Naphthalene: 29,300

B18-028-SB-1.5

B18-028-SB-7

B18-027-SB-1

B18-027-SB-7

B18-060-SB-1

B18-060-SB-5
Benzo[a]pyrene: 5.4

B18-039-SB-1

B18-039-SB-4

B18-040-SB-1
Benzo[a]pyrene: 4.5

B18-040-SB-8

B18-069-SB-1
Benzo[a]pyrene: 10.2

B18-069-SB-8

B18-057-SB-1
Benzo[a]pyrene: 3.2

B18-057-SB-4

B18-030-SB-1.5

B18-030-SB-6

B18-059-SB-1

B18-059-SB-7.5

B18-068-SB-1

B18-068-SB-9

B18-047-SB-1
Benzo[a]pyrene: 7.3

B18-047-SB-4
Benz[a]anthracene: 589
Benzo[a]pyrene: 386
Benzo[b]fluoranthene: 782
Benzo[k]fluoranthene: 707
Dibenz[a,h]anthracene: 73.9
Indeno[1,2,3-c,d]pyrene: 145
Naphthalene: 66.2

B18-033-SB-1

B18-034-SB-1

B18-034-SB-5

B18-077-SB-1
Benzo[a]pyrene: 3.7

B18-077-SB-4.5

B18-017-SB-1

B18-017-SB-7.5

B18-048-SB-2
Benzo[a]pyrene: 4.5 J

B18-048-SB-4

B18-031-SB-1
Benzo[a]pyrene: 4.0

B18-031-SB-6

B18-037-SB-1
Benzo[a]pyrene: 4.7

B18-037-SB-5
Benz[a]anthracene: 36.1
Benzo[a]pyrene: 40.8 J
Benzo[b]fluoranthene: 75.9 J
Dibenz[a,h]anthracene: 5.2
Indeno[1,2,3-c,d]pyrene: 21.2

B18-058-SB-1
Benzo[a]pyrene: 3.1

B18-009-SB-1

B18-009-SB-4
Benzo[a]pyrene: 2.7

B18-032-SB-1.5
Benzo[a]pyrene: 5.9 J

B18-032-SB-6

B18-046-SB-1

B18-046-SB-8

B18-038-SB-1
Benzo[a]pyrene: 6.4

B18-049-SB-1
Benzo[a]pyrene: 37.5 J
Benzo[b]fluoranthene: 73.7 J
Dibenz[a,h]anthracene: 3.7
Naphthalene: 12.3

B18-049-SB-4

B18-018-SB-1

B18-018-SB-7

B18-010-SB-1
Benzo[a]pyrene: 3.7

B18-010-SB-6
Benzo[a]pyrene: 11.2 J
Dibenz[a,h]anthracene: 5.1

B18-026-SB-1
Benzo[a]pyrene: 3.3

B18-026-SB-4

B18-050-SB-1

B18-050-SB-5
Benzo[a]pyrene: 9.3
Naphthalene: 11.7

B18-061-SB-1

B18-061-SB-4

B18-025-SB-1

B18-025-SB-5

B18-008-SB-1

B18-007-SB-1

B18-007-SB-4

B18-015-SB-1

B18-016-SB-1

B18-019-SB-8

B18-019-SB-11

B18-020-SB-11

B18-020-SB-14

B18-021-SB-1

B18-021-SB-4
Benzo[a]pyrene: 9.9

B18-053-SB-1

B18-053-SB-5

B18-070-SB-1

B18-070-SB-5

B18-067-SB-1

B18-067-SB-4

B18-022-SB-1

B18-054-SB-1

B18-054-SB-5

B18-071-SB-1

B18-071-SB-5

B18-023-SB-1

B18-023-SB-6

B18-052-SB-1

B18-013-SB-1

B18-013-SB-4

B18-014-SB-1

B18-014-SB-5

B18-066-SB-1

B18-066-SB-4

B18-051-SB-1

B18-055-SB-1

B18-055-SB-5

B18-055-SB-10

B18-024-SB-1

B18-024-SB-4

B18-056-SB-1

B18-073-SB-1

B18-073-SB-5

B18-035-SB-1

B18-035-SB-4

B18-036-SB-1

B18-036-SB-5

B18-072-SB-1

B18-072-SB-4

B18-011-SB-1

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

B18-012-SB-1

B18-001-SB-1
Benz[a]anthracene: 21.3
Benzo[a]pyrene: 11.6
Benzo[b]fluoranthene: 37.9
Dibenz[a,h]anthracene: 3.6

B18-001-SB-4

B18-006-SB-1

B18-005-SB-1

B18-004-SB-1

B18-003-SB-1

B18-002-SB-1

B18-076-SB-1

B18-075-SB-2
Benzo[a]pyrene: 2.3

B18-075-SB-5.5
Benzo[a]pyrene: 7.1

B18-075-SB-10
Benz[a]anthracene: 101
Benzo[a]pyrene: 78.9
Benzo[b]fluoranthene: 150
Dibenz[a,h]anthracene: 12.4
Indeno[1,2,3-c,d]pyrene: 43.2

B18-074-SB-1

B18-074-SB-9
Benzo[a]pyrene: 11.3
Dibenz[a,h]anthracene: 2.3

Parcel B18 Soil Borings
Phase II SVOC PAL Exceedances (mg/kg)

June 12, 2020

Figure
SB2

ARM Group LLC
Engineers and Scientists

0 75 150 300 Feet

Tradepoint Atlantic

Baltimore County, MD

EnviroAnalytics Group

ARM Project 20010218

Parcel B18 Soil Borings
Phase II PCB PAL Exceedances (mg/kg)

May 20, 2020

Figure SB3

N

ARM Group LLC
Engineers and Scientists

0 100 200 400 Feet

Tradepoint Atlantic

Baltimore County, MD

EnviroAnalytics Group

ARM Project 20010218

Soil Boring

Soil Boring (NAPL Observed)

Parcel Boundary

Parcel B4

Parcel B5

Parcel B18

Parcel B10

B18-043-SB-1
B18-043-SB-5
B18-042-SB-1
B18-042-SB-5
B18-041-SB-1
B18-041-SB-7.5
B18-045-SB
B18-044-SB
B18-077-SB-1
B18-077-SB-4.5
B18-029-SB-2
B18-029-SB-4
DRO: 106,000
OG: 89,000
B18-057-SB-1
B18-057-SB-4
B18-030-SB-1.5
B18-030-SB-6
B18-028-SB-1.5
B18-028-SB-7
B18-039-SB-1
B18-039-SB-4
B18-027-SB-1
B18-027-SB-7
B18-047-SB-1
B18-047-SB-4
DRO: 14,700
OG: 41,400
B18-060-SB-1
B18-060-SB-5
B18-040-SB-1
B18-040-SB-8
B18-069-SB-1
B18-069-SB-8
B18-068-SB-1
B18-068-SB-9
B18-059-SB-1
B18-059-SB-7.5
B18-033-SB-1
B18-034-SB-1
B18-034-SB-5
B18-031-SB-1
B18-031-SB-6
B18-048-SB-2
B18-048-SB-4
B18-032-SB-1.5
B18-032-SB-6
B18-009-SB-1
B18-009-SB-4
B18-058-SB-1
B18-017-SB-1
B18-017-SB-7.5
B18-037-SB-1
B18-037-SB-5
B18-038-SB-1
B18-010-SB-1
B18-010-SB-6
B18-046-SB-1
B18-046-SB-8
OG: 8,780
B18-049-SB-1
OG: 16,200
B18-049-SB-4
B18-050-SB-1
B18-050-SB-5
OG: 8,890
B18-061-SB-1
B18-061-SB-4
B18-018-SB-1
B18-018-SB-7
B18-026-SB-1
B18-026-SB-4
B18-025-SB-1
B18-025-SB-5
B18-007-SB-1
B18-007-SB-4
B18-008-SB-1
B18-015-SB-1
B18-016-SB-1
B18-019-SB-8
B18-019-SB-11
B18-020-SB-11
B18-020-SB-14
B18-023-SB-1
B18-023-SB-6
B18-013-SB-1
B18-013-SB-4
B18-014-SB-1
B18-014-SB-5
B18-024-SB-1
B18-024-SB-4
B18-073-SB-1
B18-073-SB-5
B18-067-SB-1
B18-067-SB-4
B18-066-SB-1
B18-066-SB-4
B18-021-SB-1
B18-021-SB-4
B18-053-SB-1
B18-053-SB-5
B18-070-SB-1
B18-070-SB-5
B18-022-SB-1
B18-054-SB-1
B18-054-SB-5
B18-052-SB-1
B18-051-SB-1
B18-055-SB-1
B18-055-SB-5
B18-056-SB-1
B18-071-SB-1
B18-071-SB-5
B18-072-SB-1
B18-072-SB-4
B18-035-SB-1
B18-035-SB-4
B18-036-SB-1
B18-036-SB-5
B18-011-SB-1
B18-011-SB-4
B18-012-SB-1
B18-001-SB-1
B18-001-SB-4
B18-002-SB-1
B18-074-SB-1
B18-074-SB-9
B18-005-SB-1
B18-004-SB-1
B18-003-SB-1
B18-006-SB-1
B18-076-SB-1
B18-075-SB-2
B18-075-SB-5.5
B18-075-SB-10

Parcel B18 Soil Borings
Phase II TPH/O&G PAL Exceedances (mg/kg)

May 20, 2020

Figure
SB4

ARM Group LLC
Engineers and Scientists

0 100 200 400
Feet

Tradepoint Atlantic

Baltimore County, MD

EnviroAnalytics Group

ARM Project 20010218

Soil Boring

Parcel Boundary

Parcel B4

Parcel B5

Parcel B18

Parcel B10

B18-043-SB-1
Arsenic: 12.5
Lead: 1,340

B18-043-SB-5
Arsenic: 46.4
Lead: 9,580
Thallium: 12.5

B18-041-SB-1
Arsenic: 10.1

B18-041-SB-7.5
Arsenic: 5.5

B18-042-SB-1
Arsenic: 30.9
Lead: 2,320
Thallium: 15.3

B18-042-SB-5
Arsenic: 20.8

B18-028-SB-1.5
Arsenic: 32.0 J

B18-028-SB-7

B18-027-SB-1
Arsenic: 8.8
Manganese: 45,000

B18-027-SB-7
Arsenic: 14.8

B18-060-SB-1

B18-060-SB-5
Arsenic: 22.2

B18-057-SB-1

B18-057-SB-4
Arsenic: 3.7

B18-030-SB-1.5
Arsenic: 50.3 J

B18-030-SB-6
Arsenic: 5.8 J

B18-039-SB-1
Arsenic: 16.5

B18-039-SB-4
Arsenic: 24.8

B18-040-SB-1
Arsenic: 9.0

B18-040-SB-8
Arsenic: 13.9

B18-069-SB-1
Thallium: 12.1

B18-069-SB-8

B18-068-SB-1
Manganese: 26,500
Thallium: 14.7

B18-068-SB-9
Arsenic: 5.0

B18-033-SB-1
Thallium: 13.1

B18-034-SB-1
Manganese: 32,100
Thallium: 17.7

B18-034-SB-5
Arsenic: 10.4

B18-015-SB-1
Thallium: 13.5

B18-016-SB-1
Arsenic: 4.5

B18-019-SB-8
Arsenic: 16.8

B18-019-SB-11
Arsenic: 4

B18-020-SB-11

B18-020-SB-14
Arsenic: 11.7

B18-013-SB-1

B18-013-SB-4
Arsenic: 11.6

B18-014-SB-1
Manganese: 27,800

B18-014-SB-5
Arsenic: 7.4

B18-023-SB-1

B18-023-SB-6
Arsenic: 10.0

B18-024-SB-1
Chromium VI: 7.3 J-
Manganese: 36,600

B18-024-SB-4
Arsenic: 4.5

B18-066-SB-1
Manganese: 33,700

B18-066-SB-4
Arsenic: 15.0
Lead: 3,850 J
Thallium: 13.3

B18-067-SB-1

B18-067-SB-4

B18-052-SB-1
Manganese: 28,700

B18-051-SB-1

B18-021-SB-1
Manganese: 29,500

B18-021-SB-4

B18-022-SB-1
Manganese: 31,900

B18-056-SB-1

B18-053-SB-1
Manganese: 27,300

B18-053-SB-5
Manganese: 30,400

B18-054-SB-1

B18-054-SB-5
Manganese: 28,400

B18-055-SB-1
Manganese: 27,000

B18-055-SB-5
Arsenic: 24.4
Lead: 1,760

B18-055-SB-10

B18-070-SB-1
Manganese: 27,900

B18-070-SB-5
Arsenic: 11.6

B18-071-SB-1
Arsenic: 4.6

B18-071-SB-5

B18-072-SB-1

B18-072-SB-4
Arsenic: 7.8
Lead: 1,120

B18-036-SB-1
Arsenic: 16.0

B18-036-SB-5

B18-035-SB-1
Arsenic: 3.6

B18-035-SB-4
Arsenic: 5.8

B18-073-SB-1

B18-073-SB-5

B18-011-SB-1

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

B18-012-SB-1

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

B18-006-SB-1

B18-005-SB-1

B18-003-SB-1

B18-002-SB-1
Arsenic: 7.9

B18-001-SB-1
Manganese: 26,200

B18-001-SB-4
Arsenic: 3.3

B18-074-SB-1

B18-074-SB-9
Arsenic: 8.4

B18-075-SB-2

B18-075-SB-5.5
Arsenic: 4.2

B18-075-SB-10
Arsenic: 5.2

B18-077-SB-1
Arsenic: 13.5

B18-077-SB-4.5
Arsenic: 4.4

B18-058-SB-1
Thallium: 12.3

B18-017-SB-1

B18-017-SB-7.5

B18-029-SB-2
Arsenic: 12.9 J

B18-029-SB-4
Arsenic: 29.2 J

B18-047-SB-1
Arsenic: 5.9 J

B18-047-SB-4
Arsenic: 45.7 J

B18-059-SB-1
Manganese: 32,400

B18-059-SB-7.5
Arsenic: 4.2 J

B18-048-SB-2
Arsenic: 25.6 J
Lead: 820

B18-048-SB-4
Arsenic: 20.8 J

B18-009-SB-1
Manganese: 28,600
Thallium: 13.6

B18-009-SB-4

B18-031-SB-1
Arsenic: 5.2 J

B18-031-SB-6
Arsenic: 8.7 J

B18-032-SB-1.5
Arsenic: 19.0 J

B18-032-SB-6
Arsenic: 19.1 J

B18-037-SB-1
Arsenic: 4.0

B18-037-SB-5

B18-038-SB-1

B18-010-SB-1
Manganese: 29,300
Thallium: 15.5

B18-010-SB-6

B18-018-SB-1

B18-018-SB-7
Arsenic: 3.9

B18-046-SB-1
Manganese: 30,400
Thallium: 12.0

B18-046-SB-8

B18-049-SB-1

B18-049-SB-4
Arsenic: 8.9
Manganese: 30,200
Thallium: 13.3

B18-050-SB-1
Manganese: 26,400
Thallium: 15.6

B18-050-SB-5

B18-061-SB-1
Arsenic: 22.5

B18-061-SB-4
Arsenic: 3.7

B18-026-SB-1
Arsenic: 20.8

B18-026-SB-4
Arsenic: 25.4

B18-025-SB-1
Thallium: 12.8

B18-025-SB-5
Arsenic: 15.1

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

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

B18-007-SB-4
Arsenic: 4.1

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

Parcel B18 Soil Borings Phase II Inorganic PAL Exceedances (mg/kg) May 20, 2020	Figure SB5
ARM Group LLC Engineers and Scientists 0 75 150 300 Feet	Tradepoint Atlantic
	Baltimore County, MD
	EnviroAnalytics Group
	ARM Project 20010218


Piezometer
Parcel Boundary
Parcel B4
Parcel B5
Parcel B18
Parcel B10
B18-070-PZ
Chloroform: 1.0
B18-071-PZ
1,1-Dichloroethane: 5.7
1,1-Dichloroethene: 7.0
Chloroform: 12.5
B18-072-PZ
B18-077-PZ
B18-046-PZ
Bromodichloromethane: 5.5
Chloroform: 8.8
Dibromochloromethane: 2.1
B18-061-PZ
Chloroform: 3.1
B18-007-PZ
Benzene: 67.2
Chloroform: 0.73 J
B18-076-PZ
Chloroform: 0.55 J
B18-075-PZ
B18-074-PZ
Parcel B18 Groundwater Samples
Phase II VOC PAL Exceedances (ug/L)
May 20, 2020
Figure
GW1
ARM Group LLC
Engineers and Scientists
0 100 200 400
Feet
Tradepoint Atlantic
Baltimore County, MD
EnviroAnalytics Group
ARM Project 20010218


Piezometer
Parcel Boundary
Parcel B4
Parcel B5
Parcel B18
Parcel B10
B18-070-PZ
1,4-Dioxane: 1.6
Naphthalene: 0.13
B18-071-PZ
1,4-Dioxane: 1.4
B18-072-PZ
B18-077-PZ
B18-046-PZ
Naphthalene: 3.8
B18-061-PZ
Naphthalene: 0.48
B18-007-PZ
1,1-Biphenyl: 1.4
1,4-Dioxane: 0.47
Benz[a]anthracene: 0.043 J
Naphthalene: 411
B18-076-PZ
B18-074-PZ
Naphthalene: 3.0
B18-075-PZ
Benz[a]anthracene: 0.07 J
Naphthalene: 1.6
Parcel B18 Groundwater Samples
Phase II SVOC PAL Exceedances (ug/L)
June 12, 2020
Figure
GW2
ARM Group LLC
Engineers and Scientists
0 100 200 400
Feet
Tradepoint Atlantic
Baltimore County, MD
EnviroAnalytics Group
ARM Project 20010218


Piezometer
Parcel Boundary
Parcel B4
Parcel B5
Parcel B18
Parcel B10
B18-070-PZ
DRO: 139 J
B18-071-PZ
DRO: 4,330 J
B18-072-PZ
DRO: 910 J
OG: 2,960 J
B18-077-PZ
DRO: 156
B18-046-PZ
DRO: 333
B18-061-PZ
DRO: 346
OG: 35,900
B18-007-PZ
DRO: 866
GRO: 294
B18-074-PZ
DRO: 510 J
GRO: 109 J
B18-076-PZ
DRO: 251
B18-075-PZ
DRO: 370 J
Parcel B18 Groundwater Samples
Phase II TPH/O&G PAL Exceedances (ug/L)
May 20, 2020
Figure
GW3
ARM Group LLC
Engineers and Scientists
0 100 200 400
Feet
Tradepoint Atlantic
Baltimore County, MD
EnviroAnalytics Group
ARM Project 20010218


Piezometer
Parcel Boundary
(D) = Dissolved
Parcel B4
Parcel B5
Parcel B18
Parcel B10
B18-070-PZ
Cobalt (D): 59.9
Iron (D): 36,000
Manganese (D): 1,510
B18-071-PZ
B18-072-PZ
B18-077-PZ
B18-046-PZ
B18-061-PZ
B18-007-PZ
B18-076-PZ
B18-074-PZ
B18-075-PZ
Cobalt (D): 42.6
Iron (D): 15,900
Manganese (D): 1,630
Parcel B18 Groundwater Samples
Phase II Inorganic PAL Exceedances (ug/L)
May 20, 2020
Figure
GW4
ARM Group LLC
Engineers and Scientists
0 100 200 400
Feet
Tradepoint Atlantic
Baltimore County, MD
EnviroAnalytics Group
ARM Project 20010218

TABLES

Table 1 - Parcel B18
Groundwater Elevation Data

Location Name	TOC Elevation (feet AMSL)	Ground Elevation (feet AMSL)	48-Hr Measured DTW (feet)	Groundwater Elevation (feet AMSL)
B18-007-PZ	16.82	14.12	11.45	5.37
B18-046-PZ	17.00	13.81	13.67	3.33
B18-061-PZ	16.17	13.29	11.39	4.78
B18-070-PZ	14.63	11.74	8.98	5.65
B18-071-PZ	14.75	11.93	5.16	9.59
B18-072-PZ	14.28	11.53	6.98	7.30
B18-074-PZ	15.74	12.87	12.36	3.38
B18-075-PZ	16.07	13.24	9.15	6.92
B18-076-PZ	15.34	12.55	7.11	8.23
B18-077-PZ	16.16	13.03	9.78	6.38

DTW = Depth to water
TOC = Top of casing
AMSL = Above mean sea level

Table 2 - Parcel B18
Historical Site Drawing Details

Set Name	Typical Features Shown	Drawing Number	Original Date Drawn	Latest Revision Date
Plant Arrangement	Roads, water bodies, building/structure footprints, electric lines, above-ground pipelines (e.g.: steam, nitrogen, etc.)	5013	10/22/1958	3/12/1982
		5014	10/1/1959	3/12/1982
		5015	6/14/1957	3/12/1982
Plant Index	Roads, water bodies, demolished buildings/structures, electric lines, above-ground pipelines	5113	*Unknown*	3/12/2008
		5114	*Unknown*	8/14/2008
		5115	*Unknown*	9/4/2008
Plant Sewer Lines	Same as above plus trenches, sumps, underground piping (includes pipe materials)	5513	8/26/1959	1/22/1982
		5514	*Unknown*	1/22/1982
		5515	Oct. 1958	9/11/2008
Drip Legs	Coke Oven Gas Drip Legs Locations	5885B	*Unknown*	Sept. 1988

Table 3 - Parcel B18
Field Shifted Sample Locations

Location ID	Sample Target	Proposed Location*		Final Location*		Relocation Distance & Direction	
		Northing	Easting	Northing	Easting		
B18-009-SB	Coke Oven Lab	563,436	1,456,388	563,420	1,456,394	17	S
B18-011-SB	Coke Wharf	563,317	1,457,826	563,317	1,457,818	8	W
B18-012-SB	Coke Wharf	563,288	1,457,623	563,290	1,457,617	6	W
B18-017-SB	Electric Substation	563,439	1,456,275	563,449	1,456,271	10	NE
B18-043-SB	REC 25, Finding 277 / Finding 285	563,690	1,455,779	563,692	1,455,792	13	E
B18-046-SB	REC 8B, Finding 202	563,295	1,456,040	563,301	1,456,050	12	NE
B18-051-SB	Settling Basin	563,719	1,457,773	563,725	1,457,776	7	NE
B18-055-SB	Storage Shed	563,778	1,457,941	563,760	1,457,946	18	S
B18-061-SB	Belt Storage	563,201	1,456,283	563,241	1,456,297	43	NW
B18-066-SB	No. 1 Boiler House	563,713	1,457,710	563,724	1,457,728	20	NE
B18-067-SB	No. 1 Boiler House	563,791	1,457,701	563,799	1,457,712	14	NE
B18-069-SB	No. 1 Pump Station	563,632	1,456,626	563,643	1,456,622	12	N
B18-071-SB	Old No. 1 Gas Engine	563,758	1,458,119	563,778	1,458,113	21	N
B18-075-SB	Parcel B18 Coverage	563,176	1,457,709	563,113	1,457,707	62	S
B18-062-SG	Coke Battery	563,165	1,457,136	563,237	1,457,030	128	NW
B18-063-SG	Coke Battery	563,145	1,456,752	563,099	1,456,699	70	SW
B18-064-SG	Coke Warf	563,223	1,457,005	563,198	1,456,862	145	W
B18-065-SG	Building Coverage	563,102	1,456,946	563,209	1,456,968	109	N

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

Table 4 - Parcel B18
Characterization Results for Solid IDW

Sample ID	Parameter	Result (mg/L)	Laboratory Flag	TCLP Limit (mg/L)	TCLP Exceedance	Laboratory LOQ (mg/L)
B18 Waste Disposal (2/2/2017)	1,1-Dichloroethene	0.05	U	0.7	no	0.05
	1,2-Dichloroethane	0.05	U	0.5	no	0.05
	1,4-Dichlorobenzene	0.5	U	7.5	no	0.5
	2,4,5-Trichlorophenol	5	U	400	no	5
	2,4,6-Trichlorophenol	0.1	U	2	no	0.1
	2,4-Dinitrotoluene	0.1	U	0.13	no	0.1
	2-Butanone (MEK)	5	U	200	no	5
	2-Methylphenol	2	U	200	no	2
	3&4-Methylphenol(m&p Cresol)	2	U	200	no	2
	Arsenic	0.05	U	5	no	0.05
	Barium	0.21	J	100	no	1
	Benzene	0.05	U	0.5	no	0.05
	Cadmium	6E-04	J	1	no	0.05
	Carbon tetrachloride	0.05	U	0.5	no	0.05
	Chlorobenzene	1	U	100	no	1
	Chloroform	0.5	U	6	no	0.5
	Chromium	0.007	B	5	no	0.05
	Hexachlorobenzene	0.1	U	0.13	no	0.1
	Hexachloroethane	0.5	U	3	no	0.5
	Lead	0.1	U	5	no	0.1
	Mercury	0.001	U	0.2	no	0.001
	Nitrobenzene	0.1	U	2	no	0.1
	Pentachlorophenol	5	U	100	no	5
	Selenium	0.011	J	1	no	0.1
	Silver	0.05	U	5	no	0.05
	Tetrachloroethene	0.05	U	0.7	no	0.05
	Trichloroethene	0.05	U	0.5	no	0.05
	Vinyl chloride	0.05	U	0.2	no	0.05

Table 4 - Parcel B18
Characterization Results for Solid IDW

Sample ID	Parameter	Result (mg/L)	Laboratory Flag	TCLP Limit (mg/L)	TCLP Exceedance	Laboratory LOQ (mg/L)
B18 Waste (8/17/2018)	1,1-Dichloroethene	0.05	U	0.7	no	0.05
	1,2-Dichloroethane	0.05	U	0.5	no	0.05
	1,4-Dichlorobenzene	0.1	U	7.5	no	0.1
	2,4,5-Trichlorophenol	0.25	U	400	no	0.25
	2,4,6-Trichlorophenol	0.1	U	2	no	0.1
	2,4-Dinitrotoluene	0.1	U	0.13	no	0.1
	2-Butanone (MEK)	0.1	U	200	no	0.1
	2-Methylphenol	0.1	U	200	no	0.1
	3&4-Methylphenol(m&p Cresol)	0.2	U	200	no	0.2
	Arsenic	0.025	U	5	no	0.025
	Barium	0.24		100	no	0.05
	Benzene	0.05	U	0.5	no	0.05
	Cadmium	0.015	U	1	no	0.015
	Carbon tetrachloride	0.05	U	0.5	no	0.05
	Chlorobenzene	0.05	U	100	no	0.05
	Chloroform	0.05	U	6	no	0.05
	Chromium	0.025	U	5	no	0.025
	Hexachlorobenzene	0.1	U	0.13	no	0.1
	Hexachloroethane	0.1	U	3	no	0.1
	Lead	0.05	U	5	no	0.05
	Mercury	0.001	U	0.2	no	0.001
	Nitrobenzene	0.1	U	2	no	0.1
	Pentachlorophenol	0.25	U	100	no	0.25
	Selenium	0.04	U	1	no	0.04
	Silver	0.03	U	5	no	0.03
	Tetrachloroethene	0.05	U	0.7	no	0.05
	Trichloroethene	0.05	U	0.5	no	0.05
	Vinyl chloride	0.05	U	0.2	no	0.05

U: The analyte was not detected in the sample. The numeric value represents the sample LOQ.
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.
TCLP: Toxicity Characteristic Leaching Procedure
LOQ: Limit of Quantitation

Table 5 - Parcel B18
Characterization Results for Liquid IDW

Sample ID	Parameter	Result (mg/L)	Laboratory Flag	TCLP Limit (mg/L)	TCLP Exceedance	Laboratory LOQ (mg/L)
Water Disposal (2/2/17)	1,1-Dichloroethene	0.001	U	0.7	no	0.001
	1,2-Dichloroethane	0.001	U	0.5	no	0.001
	1,4-Dichlorobenzene	0.001	U	7.5	no	0.001
	2-Butanone (MEK)	0.01	U	200	no	0.01
	Arsenic	0.005	U	5	no	0.005
	Barium	0.0564		100	no	0.01
	Benzene	0.0019		0.5	no	0.001
	Cadmium	0.003	U	1	no	0.003
	Carbon tetrachloride	0.001	U	0.5	no	0.001
	Chlorobenzene	0.001	U	100	no	0.001
	Chloroform	0.00092	J	6	no	0.001
	Chromium	0.0021	J	5	no	0.005
	Lead	0.005	U	5	no	0.005
	Mercury	0.0002	U	0.2	no	0.0002
	Selenium	0.008	U	1	no	0.008
	Silver	0.006	U	5	no	0.006
	Tetrachloroethene	0.001	U	0.7	no	0.001
	Trichloroethene	0.001	U	0.5	no	0.001
	Vinyl chloride	0.001	U	0.2	no	0.001
Water Disposal (2/7/18)	1,1-Dichloroethene	0.001	U	0.7	no	0.001
	1,2-Dichloroethane	0.001	U	0.5	no	0.001
	1,4-Dichlorobenzene	0.001	U	7.5	no	0.001
	2-Butanone (MEK)	0.01	U	200	no	0.01
	Arsenic	0.005	U	5	no	0.005
	Barium	0.0262		100	no	0.01
	Benzene	0.0095		0.5	no	0.001
	Cadmium	0.0042		1	no	0.003
	Carbon tetrachloride	0.001	U	0.5	no	0.001
	Chlorobenzene	0.001	U	100	no	0.001
	Chloroform	0.001	U	6	no	0.001
	Chromium	0.00091	J	5	no	0.005
	Lead	0.0023	J	5	no	0.005
	Selenium	0.008	U	1	no	0.008
	Silver	0.006	U	5	no	0.006
	Tetrachloroethene	0.001	U	0.7	no	0.001
	Trichloroethene	0.0012		0.5	no	0.001
	Vinyl chloride	0.001	U	0.2	no	0.001

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

Table 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-001-SB-1 10/17/2016	B18-001-SB-4 10/17/2016	B18-002-SB-1* 10/25/2016	B18-003-SB-1* 10/26/2016	B18-004-SB-1* 10/26/2016	B18-005-SB-1* 10/27/2016	B18-006-SB-1 10/17/2016	B18-007-SB-1* 10/27/2016	B18-007-SB-4* 10/27/2016	B18-008-SB-1 10/19/2016	B18-009-SB-1 10/19/2016	B18-009-SB-4 10/19/2016	B18-010-SB-1 10/19/2016	B18-010-SB-6 10/19/2016	B18-011-SB-1* 10/25/2016
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	36,000	N/A	0.0069 U	N/A	N/A	N/A	N/A	N/A	0.006 U	N/A	N/A	0.0044 U	0.0048 U	0.0057 U	N/A	N/A
2-Butanone (MEK)	mg/kg	190,000	N/A	**0.0082 J**	N/A	N/A	N/A	N/A	N/A	0.012 U	N/A	N/A	**0.0031 J**	0.0095 U	**0.0031 J**	N/A	N/A
Acetone	mg/kg	670,000	N/A	**0.067 J**	N/A	N/A	N/A	N/A	N/A	0.02 B	N/A	N/A	**0.016 J**	**0.0064 J**	**0.013 J**	N/A	N/A
Benzene	mg/kg	5.1	N/A	0.0069 U	N/A	N/A	N/A	N/A	N/A	0.006 U	N/A	N/A	0.0044 U	**0.0014 J**	0.0057 U	N/A	N/A
Bromodichloromethane	mg/kg	1.3	N/A	0.0069 U	N/A	N/A	N/A	N/A	N/A	0.006 U	N/A	N/A	0.0044 U	0.0048 U	0.0057 U	N/A	N/A
Chloroform	mg/kg	1.4	N/A	0.0069 U	N/A	N/A	N/A	N/A	N/A	0.006 U	N/A	N/A	0.0044 U	**0.011**	0.0057 U	N/A	N/A
Cyclohexane	mg/kg	27,000	N/A	0.014 U	N/A	N/A	N/A	N/A	N/A	0.012 U	N/A	N/A	0.0089 U	0.0095 U	0.011 U	N/A	N/A
Ethylbenzene	mg/kg	25	N/A	0.0069 U	N/A	N/A	N/A	N/A	N/A	0.006 U	N/A	N/A	0.0044 U	0.0048 U	0.0057 U	N/A	N/A
Isopropylbenzene	mg/kg	9,900	N/A	0.0069 U	N/A	N/A	N/A	N/A	N/A	0.006 U	N/A	N/A	0.0044 U	0.0048 U	0.0057 U	N/A	N/A
Styrene	mg/kg	35,000	N/A	0.0069 U	N/A	N/A	N/A	N/A	N/A	0.006 U	N/A	N/A	0.0044 U	0.0048 U	0.0057 U	N/A	N/A
Tetrachloroethene	mg/kg	100	N/A	0.0069 U	N/A	N/A	N/A	N/A	N/A	0.006 U	N/A	N/A	0.0044 U	0.0048 U	0.0057 U	N/A	N/A
Toluene	mg/kg	47,000	N/A	0.0069 U	N/A	N/A	N/A	N/A	N/A	0.006 U	N/A	N/A	0.0044 U	**0.0018 J**	0.0057 U	N/A	N/A
Xylenes	mg/kg	2,800	N/A	0.021 U	N/A	N/A	N/A	N/A	N/A	0.018 U	N/A	N/A	0.013 U	0.014 U	0.017 U	N/A	N/A
Semi-Volatile Organic Compounds^																	
1,1-Biphenyl	mg/kg	200	0.073 U	**0.041 J**	0.07 U	0.074 U	0.072 U	**0.038 J**	0.068 U	0.069 U	**0.43**	0.07 U	**0.015 J**	**0.27**	**0.27**	**0.65**	**0.045 J**
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
2,4-Dichlorophenol	mg/kg	2,500	0.073 R	0.078 R	0.07 U	0.074 U	0.072 U	0.073 U	0.068 R	0.069 U	0.076 U	0.07 R	0.07 R	0.073 U	0.072 R	0.078 U	0.075 U
2,4-Dimethylphenol	mg/kg	16,000	0.073 R	0.078 R	0.07 U	0.074 U	0.072 U	0.073 U	0.068 R	0.069 U	0.076 U	0.07 R	0.07 R	0.073 U	0.072 R	**0.028 J**	**0.015 J**
2,4-Dinitrophenol	mg/kg	1,600	0.18 R	0.2 R	0.18 U	0.18 U	0.18 U	0.18 U	0.17 R	0.17 U	0.19 U	0.18 R	0.18 R	0.18 UJ	0.18 R	0.19 UJ	0.19 U
2,4-Dinitrotoluene	mg/kg	7.4	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
2,6-Dinitrotoluene	mg/kg	1.5	**0.044 J**	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
2-Chloronaphthalene	mg/kg	60,000	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
2-Chlorophenol	mg/kg	5,800	0.073 R	0.078 R	0.07 U	0.074 U	0.072 U	0.073 U	0.068 R	0.069 U	0.076 U	0.07 R	0.07 R	0.073 U	0.072 R	0.078 U	0.075 U
2-Methylnaphthalene	mg/kg	3,000	**0.31**	**0.24**	**0.052**	**0.23**	**0.0048 J**	**0.071**	**0.015**	**0.019**	**7.1**	**0.033**	**0.063 J**	**0.22**	**0.99**	**3.9**	**0.36**
2-Methylphenol	mg/kg	41,000	0.073 R	0.078 R	0.07 U	0.074 U	0.072 U	0.073 U	0.068 R	0.069 U	**0.017 J**	0.07 R	0.07 R	0.073 U	0.072 R	**0.031 J**	0.075 U
2-Nitroaniline	mg/kg	8,000	0.18 U	0.2 U	0.18 U	0.18 U	0.18 U	0.18 U	0.17 U	0.17 U	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U	0.19 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.14 R	0.16 R	0.14 U	0.15 U	0.14 U	0.15 U	0.14 R	0.14 U	**0.027 J**	0.14 R	0.14 R	**0.021 J**	0.14 R	**0.07 J**	**0.019 J**
3,3'-Dichlorobenzidine	mg/kg	5.1	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
4-Chloroaniline	mg/kg	11	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
Acenaphthene	mg/kg	45,000	0.074 U	**0.011**	**0.0063 J**	**0.003 J**	0.0072 U	**0.0035 J**	**0.0012 J**	**0.00098 J**	**0.1**	**0.00076 J**	**0.011**	**0.044 J**	**0.076**	**1.1**	**0.01**
Acenaphthylene	mg/kg	45,000	**0.99**	**0.073**	**0.0098**	**0.022**	**0.00088 J**	**0.068**	**0.0051 J**	**0.017**	**0.22**	**0.011**	**0.021**	**1.2**	**0.55**	**6**	**0.019**
Acetophenone	mg/kg	120,000	**0.31**	**0.11**	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	**0.34**	0.07 U	**0.029 J**	**0.028 J**	**0.052 J**	**0.045 J**	0.075 U
Anthracene	mg/kg	230,000	**1.7**	**0.082**	**0.023**	**0.031**	**0.0018 J**	**0.14**	**0.0083**	**0.011**	**0.3**	**0.013**	**0.03**	**0.84**	**1**	**12.6**	**0.019**
Benz[a]anthracene	mg/kg	21	**21.3**	**0.33**	**0.068**	**0.085**	**0.0055 J**	**0.46**	**0.022**	**0.039**	**0.93**	**0.039**	**0.1 J**	**2.6**	**3.6**	**10.3**	**0.061**
Benzaldehyde	mg/kg	120,000	0.073 U	0.078 U	0.07 U	**0.018 J**	0.072 U	0.073 U	0.068 U	**0.017 J**	**0.49**	**0.067 J**	**0.046 J**	**0.027 J**	**0.075 J**	**0.12 J**	**0.089**
Benzo[a]pyrene	mg/kg	2.1	**11.6**	**0.29**	**0.073**	**0.071**	**0.0036 J**	**0.44**	**0.019**	**0.036**	**0.78**	**0.026**	**0.11 J**	**2.7**	**3.7**	**11.2 J**	**0.066**
Benzo[b]fluoranthene	mg/kg	21	**37.9**	**0.7**	**0.12**	**0.15**	**0.0091**	**0.72**	**0.042**	**0.07**	**1.3**	**0.079**	**0.28 J**	**4.8**	**6.2**	**10.3 J**	**0.1**
Benzo[g,h,i]perylene	mg/kg		**9.1**	**0.26**	**0.042**	**0.056**	**0.0033 J**	**0.32**	**0.015**	**0.04**	**0.61**	**0.026**	**0.11 J**	**2.6**	**2.9**	**14.8**	**0.041**
Benzo[k]fluoranthene	mg/kg	210	**13.6**	**0.68**	**0.046**	**0.12**	**0.0073**	**0.23**	**0.04**	**0.024**	**0.47**	**0.071**	**0.25 J**	**4.4**	**5.6**	**13.3**	**0.03**
bis(2-chloroethoxy)methane	mg/kg	2,500	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
bis(2-Chloroethyl)ether	mg/kg	1	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	**0.015 J**	0.078 U	0.07 U	**0.026 J**	0.072 U	0.073 U	0.068 U	0.069 U	**0.041 J**	0.015 B	0.07 U	**0.22**	0.038 B	0.078 U	0.075 U
Caprolactam	mg/kg	400,000	**0.056 J**	0.2 U	0.18 U	**0.024 J**	0.18 U	0.18 U	0.17 U	0.17 U	**0.69**	0.18 U	0.18 U	**0.023 J**	**0.14 J**	**0.062 J**	**0.066 J**
Carbazole	mg/kg		**0.077**	**0.053 J**	0.07 U	0.074 U	0.072 U	**0.089**	**0.03 J**	0.069 U	**0.11**	0.07 U	0.07 U	**0.17**	**0.49**	**6**	**0.03 J**
Chrysene	mg/kg	2,100	**24.6**	**0.4**	**0.077**	**0.094**	**0.0058 J**	**0.54**	**0.027**	**0.044**	**1.2**	**0.056**	**0.16 J**	**2.7**	**3.5**	**11.5**	**0.076**
Dibenz[a,h]anthracene	mg/kg	2.1	**3.6**	**0.09**	**0.013**	**0.017**	0.0072 U	**0.075**	**0.0038 J**	**0.0082**	**0.21**	**0.0082**	**0.03**	**0.62**	**0.91**	**5.1**	**0.012**
Diethylphthalate	mg/kg	660,000	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
Di-n-butylphthalate	mg/kg	82,000	**0.026 J**	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
Di-n-ocytlphthalate	mg/kg	8,200	0.073 UJ	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.033 B	0.069 U	0.076 U	0.027 B	0.07 U	0.073 UJ	0.072 UJ	0.069 B	0.075 U
Fluoranthene	mg/kg	30,000	**42.5**	**0.56**	**0.14**	**0.18**	**0.012**	**1.3**	**0.058**	**0.07**	**1.6**	**0.096**	**0.24 J**	**6.1**	**7.4**	**24**	**0.11**
Fluorene	mg/kg	30,000	**0.012 J**	**0.015**	**0.014**	**0.01**	0.0072 U	**0.0036 J**	**0.0019 J**	**0.0016 J**	**0.15**	**0.0017 J**	**0.0095**	**0.16**	**0.22**	**7.1**	**0.019**
Hexachloroethane	mg/kg	8	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**10.4**	**0.24**	**0.038**	**0.047**	**0.0026 J**	**0.28**	**0.012**	**0.035**	**0.51**	**0.022**	**0.098 J**	**2.2**	**2.5**	**14.4**	**0.032**
Isophorone	mg/kg	2,400	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
Naphthalene	mg/kg	8.6	**0.46**	**0.3**	**0.085**	**0.23**	**0.0075**	**0.36**	**0.026**	**0.039**	**5.7**	**0.067**	**0.26 J**	**0.67**	**1.8**	**6.9**	**0.32**
N-Nitrosodiphenylamine	mg/kg	470	0.073 U	0.078 U	0.07 U	0.074 U	0.072 U	0.073 U	0.068 U	0.069 U	0.076 U	0.07 U	0.07 U	0.073 U	0.072 U	0.078 U	0.075 U
Pentachlorophenol	mg/kg	4	0.18 R	0.2 R	0.18 U	0.18 U	0.18 U	0.18 U	0.17 R	0.17 U	0.19 U	0.18 R	0.18 R	0.18 U	0.18 R	0.19 U	0.19 U
Phenanthrene	mg/kg		**5.6**	**0.39**	**0.14**	**0.19**	**0.016**	**1.2**	**0.067**	**0.045**	**3.8**	**0.076**	**0.16**	**2.9**	**6.4**	**20**	**0.21**
Phenol	mg/kg	250,000	0.073 R	0.078 R	0.07 U	0.074 U	0.072 U	0.073 U	0.068 R	0.069 U	**0.018 J**	0.07 R	0.07 R	0.073 U	0.072 R	**0.052 J**	0.075 U
Pyrene	mg/kg	23,000	**40.4**	**0.47**	**0.12**	**0.15**	**0.0093**	**0.98**	**0.047**	**0.06**	**1.4**	**0.072**	**0.22 J**	**5.2**	**6**	**19.1**	**0.11**

Table 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-001-SB-1 10/17/2016	B18-001-SB-4 10/17/2016	B18-002-SB-1* 10/25/2016	B18-003-SB-1* 10/26/2016	B18-004-SB-1* 10/26/2016	B18-005-SB-1* 10/27/2016	B18-006-SB-1 10/17/2016	B18-007-SB-1* 10/27/2016	B18-007-SB-4* 10/27/2016	B18-008-SB-1 10/19/2016	B18-009-SB-1 10/19/2016	B18-009-SB-4 10/19/2016	B18-010-SB-1 10/19/2016	B18-010-SB-6 10/19/2016	B18-011-SB-1* 10/25/2016
PCBs																	
Aroclor 1248	mg/kg	0.94	0.0561 U	N/A	0.0528 U	0.0556 U	0.0575 U	0.056 U	0.0541 U	0.0564 U	N/A	0.0611 U	0.0544 U	N/A	**0.0934**	N/A	0.0577 U
Aroclor 1254	mg/kg	0.97	**0.113**	N/A	0.0528 U	0.0556 U	0.0575 U	0.056 U	0.0541 U	0.0564 U	N/A	**0.215**	0.0544 U	N/A	0.0567 U	N/A	0.0577 U
Aroclor 1260	mg/kg	0.99	**0.0496 J**	N/A	0.0528 U	0.0556 U	0.0575 U	0.056 U	0.0541 U	0.0564 U	N/A	**0.331**	0.0544 U	N/A	0.0567 U	N/A	0.0577 U
Aroclor 1268	mg/kg		0.0561 U	N/A	0.0528 U	0.0556 U	0.0575 U	0.056 U	0.0541 U	0.0564 U	N/A	0.0611 U	0.0544 U	N/A	0.0567 U	N/A	0.0577 U
PCBs (total)	mg/kg	0.97	**0.1626**	N/A	0.0528 U	0.0556 U	0.0575 U	0.056 U	0.0541 U	0.0564 U	N/A	**0.546**	0.0544 U	N/A	**0.0934**	N/A	0.0577 U
TPH/Oil & Grease																	
Diesel Range Organics	mg/kg	6,200	**424 J**	**139 J**	**45.9**	**48.3**	**17.3**	**47.9**	**21.6 J**	**23.1**	**326**	**69.2**	**360 J**	**169**	**443**	**675**	**65.9**
Gasoline Range Organics	mg/kg	6,200	12.9 U	13.1 U	8.2 U	12.4 U	11.3 U	9.2 U	9.6 U	10.5 U	**13.7**	10.3 U	9.6 U	9.4 U	9.3 U	13 U	16.1 U
Oil & Grease	mg/kg	6,200	**1,150**	**611**	457 B	180 B	245 B	**384**	**302**	206 B	**571**	**317**	**1,730**	**1,650**	**717**	**1,600**	354 B

Detections in bold **Values in red indicate exceedances of the Project Action Limit (PAL)**
^PAH compounds were analyzed via SIM
*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.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
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 was a quantitative estimate.
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 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-011-SB-4* 10/25/2016	B18-012-SB-1* 10/25/2016	B18-013-SB-1 10/24/2016	B18-013-SB-4 10/24/2016	B18-014-SB-1 10/24/2016	B18-014-SB-5 10/24/2016	B18-015-SB-1* 10/21/2016	B18-016-SB-1* 10/21/2016	B18-017-SB-1 10/19/2016	B18-017-SB-7.5 10/19/2016	B18-018-SB-1 10/19/2016	B18-018-SB-7 10/19/2016	B18-019-SB-8* 10/27/2016	B18-019-SB-11* 10/27/2016
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	36,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0065 U	N/A	0.011 U	0.0054 U	0.0071 U
2-Butanone (MEK)	mg/kg	190,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.013 U	N/A	**0.0073 J**	**0.006 J**	0.014 U
Acetone	mg/kg	670,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.0069 J**	N/A	**0.074 J**	0.029 B	0.025 B
Benzene	mg/kg	5.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0065 U	N/A	0.011 U	**0.0032 J**	0.0071 U
Bromodichloromethane	mg/kg	1.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0065 U	N/A	0.011 U	0.0054 U	0.0071 U
Chloroform	mg/kg	1.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0065 U	N/A	0.011 U	0.0054 U	0.0071 U
Cyclohexane	mg/kg	27,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.013 U	N/A	0.022 U	**0.0054 J**	0.014 U
Ethylbenzene	mg/kg	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0065 U	N/A	0.011 U	0.0054 U	0.0071 U
Isopropylbenzene	mg/kg	9,900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0065 U	N/A	0.011 U	0.0054 U	0.0071 U
Styrene	mg/kg	35,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0065 U	N/A	0.011 U	0.0054 U	0.0071 U
Tetrachloroethene	mg/kg	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0065 U	N/A	0.011 U	0.0054 U	0.0071 U
Toluene	mg/kg	47,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0065 U	N/A	0.011 U	**0.0073**	0.0071 U
Xylenes	mg/kg	2,800	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.02 U	N/A	0.032 U	**0.0034 J**	0.021 U
Semi-Volatile Organic Compounds^																
1,1-Biphenyl	mg/kg	200	0.81 U	0.078 U	0.068 U	0.073 U	0.071 U	**0.02 J**	0.072 U	0.077 U	**0.19**	0.081 U	0.069 U	0.09 U	**0.042 J**	0.077 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	**0.11**	0.077 U
2,4-Dichlorophenol	mg/kg	2,500	0.081 U	0.078 U	0.068 R	0.073 R	0.071 R	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
2,4-Dimethylphenol	mg/kg	16,000	**1.4**	0.078 U	0.068 R	0.073 R	0.071 R	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
2,4-Dinitrophenol	mg/kg	1,600	0.2 U	0.2 U	0.17 R	0.18 R	0.18 R	0.19 UJ	0.18 U	0.19 U	0.18 UJ	0.2 UJ	0.17 UJ	0.23 UJ	0.18 U	0.19 U
2,4-Dinitrotoluene	mg/kg	7.4	0.081 U	0.078 U	**0.081**	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
2,6-Dinitrotoluene	mg/kg	1.5	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
2-Chloronaphthalene	mg/kg	60,000	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	**0.14**	0.077 U
2-Chlorophenol	mg/kg	5,800	0.081 U	0.078 U	0.068 R	0.073 R	0.071 R	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
2-Methylnaphthalene	mg/kg	3,000	**49**	**0.017**	**0.0062 J**	0.0074 U	0.0071 U	**0.0038 J**	**0.0047 J**	**0.035**	**0.88**	0.08 U	**0.0057 J**	**0.1**	**0.55**	**0.07 J**
2-Methylphenol	mg/kg	41,000	**1.5**	0.078 U	0.068 R	0.073 R	0.071 R	0.074 U	0.072 U	0.077 U	**0.14**	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
2-Nitroaniline	mg/kg	8,000	0.2 U	0.2 U	0.17 U	0.18 U	0.18 U	0.19 U	0.18 U	0.19 U	0.18 U	0.2 U	0.17 U	0.23 U	0.18 U	0.19 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	**4.6**	0.16 U	0.14 R	0.15 R	0.14 R	0.15 U	0.14 U	0.15 U	0.14 U	**0.023 J**	0.14 U	0.18 U	**0.019 J**	0.15 U
3,3'-Dichlorobenzidine	mg/kg	5.1	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
4-Chloroaniline	mg/kg	11	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	**0.024 J**	0.077 U
Acenaphthene	mg/kg	45,000	**13.1**	**0.00083 J**	**0.0018 J**	0.0074 U	0.0071 U	**0.00071 J**	**0.00048 J**	**0.0036 J**	**0.03 J**	0.08 U	**0.00069 J**	**0.14**	**0.022**	**0.0094 J**
Acenaphthylene	mg/kg	45,000	**125**	**0.0069 J**	0.007 U	0.0074 U	0.0071 U	**0.0068 J**	**0.0021 J**	**0.02**	**0.44**	**0.021 J**	**0.0035 J**	**0.094**	**0.05**	**0.022 J**
Acetophenone	mg/kg	120,000	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	**0.052 J**	0.081 U	0.069 U	0.09 U	**0.02 J**	0.077 U
Anthracene	mg/kg	230,000	**155**	**0.008**	**0.0051 J**	**0.0014 J**	0.0071 U	**0.025**	**0.0037 J**	**0.033**	**0.33**	**0.011 J**	**0.0091**	**0.76**	**0.053**	**0.025 J**
Benz[a]anthracene	mg/kg	21	**135**	**0.018**	**0.035**	**0.0033 J**	**0.0015 J**	**0.03**	0.0062 B	**0.053**	**1.3**	**0.029 J**	**0.029**	**1.6**	**0.37**	**0.21**
Benzaldehyde	mg/kg	120,000	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	**0.12 J**	0.081 R	0.069 R	0.09 R	**0.083**	0.077 U
Benzo[a]pyrene	mg/kg	2.1	**126**	**0.017**	**0.043**	**0.004 J**	0.0071 U	**0.024**	**0.0048 J**	**0.058**	**1.2**	**0.013 J**	**0.027**	**1.4**	**0.47**	**0.16**
Benzo[b]fluoranthene	mg/kg	21	**135**	**0.045**	**0.077**	**0.0075**	**0.0014 J**	**0.04**	**0.012**	**0.11**	**2.2**	**0.03 J**	**0.058**	**2.4**	**0.77**	**0.63**
Benzo[g,h,i]perylene	mg/kg		**45.3**	**0.012**	**0.047**	**0.0073 J**	0.0071 U	**0.027**	**0.0037 J**	**0.033**	**0.7**	**0.015 J**	**0.024**	**1**	**0.27**	**0.21**
Benzo[k]fluoranthene	mg/kg	210	**53.3**	**0.038**	**0.026**	**0.0035 J**	0.0071 U	**0.011**	**0.011**	**0.1**	**2**	**0.027 J**	**0.052**	**2.2**	**0.26**	**0.22**
bis(2-chloroethoxy)methane	mg/kg	2,500	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
bis(2-Chloroethyl)ether	mg/kg	1	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.05 B	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
Caprolactam	mg/kg	400,000	0.2 U	0.2 U	0.17 U	0.18 U	0.18 U	0.19 U	0.18 U	0.19 U	**0.56**	0.2 U	0.17 U	0.23 U	**0.079 J**	0.19 U
Carbazole	mg/kg		**76.7**	**0.02 J**	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	**0.022 J**	**0.078**	0.081 U	0.069 U	**0.048 J**	**0.025 J**	**0.034 J**
Chrysene	mg/kg	2,100	0.081 U	**0.02**	**0.047**	**0.0042 J**	**0.0012 J**	**0.034**	**0.011**	**0.076**	**1.2**	**0.017 J**	**0.038**	**1.7**	**0.5**	**0.45**
Dibenz[a,h]anthracene	mg/kg	2.1	**5.7**	**0.0038 J**	**0.012**	**0.0016 J**	0.0071 U	**0.0051 J**	0.0073 U	**0.0094**	**0.29**	0.08 U	**0.0055 J**	**0.25**	**0.1**	**0.061 J**
Diethylphthalate	mg/kg	660,000	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
Di-n-butylphthalate	mg/kg	82,000	**2.1**	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
Di-n-ocytlphthalate	mg/kg	8,200	0.081 U	0.078 U	0.068 UJ	0.073 UJ	0.071 UJ	0.074 UJ	0.072 U	0.077 U	0.07 UJ	0.081 UJ	0.027 B	0.035 B	0.072 U	0.077 U
Fluoranthene	mg/kg	30,000	**355**	**0.037**	**0.06**	**0.0076**	**0.0042 J**	**0.079**	**0.026**	**0.14**	**1.8**	**0.034 J**	**0.066**	**4.7**	**0.46**	**0.39**
Fluorene	mg/kg	30,000	**147**	**0.004 J**	0.007 U	0.0074 U	0.0071 U	**0.0057 J**	0.0073 U	**0.013**	**0.097**	0.08 U	**0.00084 J**	**0.073 J**	**0.024**	0.077 U
Hexachloroethane	mg/kg	8	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	**0.031 J**	0.077 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**49**	**0.011**	**0.037**	**0.0051 J**	0.0071 U	**0.017**	**0.0026 J**	**0.031**	**0.68**	0.08 U	**0.021**	**0.85**	**0.26**	**0.17**
Isophorone	mg/kg	2,400	0.081 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	0.072 U	0.077 U
Naphthalene	mg/kg	8.6	**140**	**0.026**	**0.0077**	0.0037 B	0.0071 U	**0.043**	**0.021**	**0.26**	**1.6**	0.042 B	**0.009**	**0.44**	**0.46**	**0.2**
N-Nitrosodiphenylamine	mg/kg	470	0.81 U	0.078 U	0.068 U	0.073 U	0.071 U	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	**0.031 J**	0.077 U
Pentachlorophenol	mg/kg	4	2 U	0.2 U	0.17 R	0.18 R	0.18 R	0.19 U	0.18 U	0.19 U	0.18 U	0.2 U	0.17 U	0.23 U	0.18 U	0.19 U
Phenanthrene	mg/kg		**498**	**0.034**	**0.041**	**0.015**	**0.0043 J**	**0.1**	**0.02**	**0.1**	**1.2**	0.029 B	**0.045**	**4.8**	**0.5**	**0.15**
Phenol	mg/kg	250,000	**5**	0.078 U	0.068 R	0.073 R	0.071 R	0.074 U	0.072 U	0.077 U	0.07 U	0.081 U	0.069 U	0.09 U	**0.017 J**	0.077 U
Pyrene	mg/kg	23,000	**258**	**0.032**	**0.052**	**0.0054 J**	**0.0025 J**	**0.061**	**0.024**	**0.11**	**1.6 J**	**0.032 J**	**0.064**	**4.4**	**0.42**	**0.42**

Table 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-011-SB-4* 10/25/2016	B18-012-SB-1* 10/25/2016	B18-013-SB-1 10/24/2016	B18-013-SB-4 10/24/2016	B18-014-SB-1 10/24/2016	B18-014-SB-5 10/24/2016	B18-015-SB-1* 10/21/2016	B18-016-SB-1* 10/21/2016	B18-017-SB-1 10/19/2016	B18-017-SB-7.5 10/19/2016	B18-018-SB-1 10/19/2016	B18-018-SB-7 10/19/2016	B18-019-SB-8* 10/27/2016	B18-019-SB-11* 10/27/2016
PCBs																
Aroclor 1248	mg/kg	0.94	N/A	0.0559 U	0.0569 U	N/A	0.0542 U	N/A	0.0653 U	0.0564 U	0.0541 U	N/A	0.053 U	N/A	0.0541 U	N/A
Aroclor 1254	mg/kg	0.97	N/A	0.0559 U	0.0569 U	N/A	0.0542 U	N/A	0.0653 U	0.0564 U	**0.715**	N/A	0.053 U	N/A	0.0541 U	N/A
Aroclor 1260	mg/kg	0.99	N/A	0.0559 U	0.0569 U	N/A	0.0542 U	N/A	0.0653 U	0.0564 U	**0.29**	N/A	0.053 U	N/A	0.0541 U	N/A
Aroclor 1268	mg/kg		N/A	0.0559 U	0.0569 U	N/A	0.0542 U	N/A	0.0653 U	0.0564 U	0.0541 U	N/A	0.053 U	N/A	0.0541 U	N/A
PCBs (total)	mg/kg	0.97	N/A	0.0559 U	0.0569 U	N/A	0.0542 U	N/A	0.0653 U	0.0564 U	**1.005**	N/A	0.053 U	N/A	0.0541 U	N/A
TPH/Oil & Grease																
Diesel Range Organics	mg/kg	6,200	**4,190**	**4.5 J**	**39.1 J**	**23 J**	**12.1 J**	**9 J**	**22.5**	**31.2**	**80.5**	**80.3**	**9**	**27.3**	**63**	**75.7**
Gasoline Range Organics	mg/kg	6,200	15.3 U	16 U	11.8 U	9.3 U	9.6 U	12.4 U	10.7 U	13.6 U	12.2 U	23.6 U	12.1 U	23.1 U	10.4 U	12.2 U
Oil & Grease	mg/kg	6,200	**5,700**	337 B	**154**	**293**	**299**	**158**	**330**	**288**	**1,230**	**797**	**343**	**249**	347 B	**1,110**

Detections in bold **Values in red indicate exceedances of the Project Action Limit (PAL)**
^PAH compounds were analyzed via SIM
*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.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
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 was a quantitative estimate.
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 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-020-SB-11* 10/27/2016	B18-020-SB-14* 10/27/2016	B18-021-SB-1* 10/25/2016	B18-021-SB-4* 10/25/2016	B18-022-SB-1 10/24/2016	B18-023-SB-1 10/24/2016	B18-023-SB-6 10/24/2016	B18-024-SB-1 10/24/2016	B18-024-SB-4 10/24/2016	B18-025-SB-1 10/19/2016	B18-025-SB-5 10/19/2016	B18-026-SB-1 10/19/2016	B18-026-SB-4 10/19/2016	B18-027-SB-1 10/17/2016	B18-027-SB-7 10/17/2016
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	36,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0058 U	0.0096 U	N/A	0.0057 U
2-Butanone (MEK)	mg/kg	190,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.012 U	0.019 U	N/A	0.011 UJ
Acetone	mg/kg	670,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.012 U	**0.015 J**	N/A	**0.0064 J**
Benzene	mg/kg	5.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0058 U	0.0096 U	N/A	**0.0016 J**
Bromodichloromethane	mg/kg	1.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.0031 J**	0.0096 U	N/A	0.0057 U
Chloroform	mg/kg	1.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.035**	0.0096 U	N/A	0.0057 U
Cyclohexane	mg/kg	27,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.012 U	0.019 U	N/A	0.011 U
Ethylbenzene	mg/kg	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0058 U	0.0096 U	N/A	0.0057 U
Isopropylbenzene	mg/kg	9,900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0058 U	0.0096 U	N/A	0.0057 U
Styrene	mg/kg	35,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0058 U	0.0096 U	N/A	0.0057 U
Tetrachloroethene	mg/kg	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0058 U	0.0096 U	N/A	0.0057 U
Toluene	mg/kg	47,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.0022 J**	0.0096 U	N/A	0.0057 U
Xylenes	mg/kg	2,800	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.0086 J**	0.029 U	N/A	0.017 U
Semi-Volatile Organic Compounds^																	
1,1-Biphenyl	mg/kg	200	0.075 U	**0.047 J**	0.073 U	**0.16**	0.073 U	0.069 U	0.077 U	0.072 U	**0.092**	**0.024 J**	0.1 U	**0.36**	**0.018 J**	0.077 U	0.079 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
2,4-Dichlorophenol	mg/kg	2,500	0.075 U	0.085 U	0.073 U	0.074 U	0.073 R	0.069 R	0.077 R	0.072 R	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
2,4-Dimethylphenol	mg/kg	16,000	0.075 U	0.085 U	0.073 U	0.074 U	0.073 R	0.069 R	0.077 R	0.072 R	0.076 U	0.069 U	0.1 U	**0.047 J**	0.084 U	0.077 U	0.079 UJ
2,4-Dinitrophenol	mg/kg	1,600	0.19 U	0.21 U	0.18 U	0.18 U	0.18 R	0.17 R	0.19 R	0.18 R	0.19 UJ	0.17 UJ	0.26 UJ	0.18 UJ	0.21 UJ	0.19 UJ	0.2 R
2,4-Dinitrotoluene	mg/kg	7.4	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
2,6-Dinitrotoluene	mg/kg	1.5	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
2-Chloronaphthalene	mg/kg	60,000	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	**0.089**	0.084 U	0.077 U	0.079 U
2-Chlorophenol	mg/kg	5,800	0.075 U	0.085 U	0.073 U	0.074 U	0.073 R	0.069 R	0.077 R	0.072 R	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
2-Methylnaphthalene	mg/kg	3,000	**0.01**	**0.081**	**0.0033 J**	**0.82**	**0.012**	0.007 U	**0.0048 J**	**0.0039 J**	**0.096 J**	**0.097**	**0.0033 J**	**0.038 J**	**0.13**	**0.026**	**0.0028 J**
2-Methylphenol	mg/kg	41,000	0.075 U	0.085 U	0.073 U	0.074 U	0.073 R	0.069 R	0.077 R	0.072 R	0.076 U	0.069 U	0.1 U	**0.046 J**	0.084 U	0.077 U	0.079 U
2-Nitroaniline	mg/kg	8,000	0.19 U	0.21 U	0.18 U	0.18 U	0.18 U	0.17 U	0.19 U	0.18 U	0.19 U	0.17 U	0.26 U	0.18 U	0.21 U	0.19 U	0.2 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.15 U	0.17 U	0.15 U	**0.025 J**	0.14 R	0.14 R	0.15 R	0.14 R	**0.036 J**	0.14 U	0.21 U	**0.11 J**	0.17 U	0.15 U	0.16 U
3,3'-Dichlorobenzidine	mg/kg	5.1	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 UJ	0.084 U	0.077 U	0.079 U
4-Chloroaniline	mg/kg	11	0.075 U	0.085 U	0.073 U	0.074 U	0.073 UJ	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
Acenaphthene	mg/kg	45,000	**0.0015 J**	**0.02**	**0.00061 J**	**3.3**	**0.0011 J**	0.007 U	**0.0016 J**	0.0073 U	**0.17**	**0.0054 J**	0.011 U	**0.029 J**	**0.081**	0.0076 U	0.0081 U
Acenaphthylene	mg/kg	45,000	**0.015**	**0.023**	**0.0015 J**	**0.044 J**	**0.0062 J**	0.007 U	0.0078 U	0.0073 U	**0.029 J**	**0.04**	**0.0022 J**	**1.3**	**0.0074 J**	**0.0012 J**	0.0081 U
Acetophenone	mg/kg	120,000	0.075 U	**0.022 J**	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
Anthracene	mg/kg	230,000	**0.025**	**0.039**	**0.0032 J**	**5.4**	**0.015**	0.007 U	**0.0035 J**	**0.0041 J**	**0.075 J**	**0.038**	**0.0022 J**	**0.78**	**0.075**	**0.0016 J**	0.0081 U
Benz[a]anthracene	mg/kg	21	**0.16**	**0.3**	**0.014**	**10.2**	**0.043**	**0.00098 J**	**0.0057 J**	**0.0085**	**0.14 J**	**0.11**	**0.0064 J**	**3.3**	**0.046**	**0.0082**	0.0081 U
Benzaldehyde	mg/kg	120,000	0.075 U	**0.038 J**	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	**0.02 J**	0.1 R	0.072 R	0.084 R	0.077 U	0.079 U
Benzo[a]pyrene	mg/kg	2.1	**0.13**	**0.39**	**0.0085**	**9.9**	**0.039**	0.007 U	**0.0035 J**	**0.0055 J**	**0.18**	**0.084**	**0.0039 J**	**3.3**	**0.022**	**0.0048 J**	0.0081 U
Benzo[b]fluoranthene	mg/kg	21	**0.77**	**0.82**	**0.018**	**12.9**	**0.061**	0.007 U	**0.02**	**0.013**	**0.7**	**0.26**	**0.008 J**	**6.3**	**0.051**	**0.014**	**0.0041 J**
Benzo[g,h,i]perylene	mg/kg		**0.34**	**0.44**	**0.0081**	**3**	**0.029**	0.007 U	**0.013**	**0.0083**	**0.32**	**0.082**	**0.0025 J**	**2.4**	**0.014**	**0.0041 J**	0.0081 U
Benzo[k]fluoranthene	mg/kg	210	**0.24**	**0.32**	**0.0082**	**4.6**	**0.023**	0.007 U	**0.016**	**0.0047 J**	**0.62**	**0.24**	**0.0072 J**	**5.7**	**0.046**	**0.014**	**0.0039 J**
bis(2-chloroethoxy)methane	mg/kg	2,500	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
bis(2-Chloroethyl)ether	mg/kg	1	0.075 U	**0.085**	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 UJ	0.084 U	0.077 U	0.079 U
Caprolactam	mg/kg	400,000	0.19 U	**0.069 J**	0.18 U	0.18 U	0.18 U	0.17 U	0.19 U	0.18 U	0.19 U	0.17 U	0.26 U	0.18 U	0.21 U	0.19 U	0.2 UJ
Carbazole	mg/kg		0.075 U	**0.021 J**	0.073 U	**2.1**	0.073 U	0.069 U	0.077 U	0.072 U	**0.084**	0.069 U	0.1 U	**0.36**	0.084 U	0.077 U	0.079 U
Chrysene	mg/kg	2,100	**0.29**	**0.46**	**0.018**	**8.8**	**0.044**	0.007 U	**0.018**	**0.013**	**0.37**	**0.16**	**0.0055 J**	**3.6**	**0.048**	**0.018**	**0.0036 J**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.12**	**0.13**	**0.0022 J**	**1.1**	**0.0083**	0.007 U	**0.0024 J**	**0.0022 J**	**0.062 J**	**0.027**	0.011 U	**0.68**	**0.0041 J**	**0.0014 J**	0.0081 U
Diethylphthalate	mg/kg	660,000	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
Di-n-butylphthalate	mg/kg	82,000	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
Di-n-ocytlphthalate	mg/kg	8,200	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 UJ	0.077 UJ	0.072 UJ	0.076 UJ	0.069 U	0.035 B	0.072 UJ	0.024 B	0.039 B	0.039 B
Fluoranthene	mg/kg	30,000	**0.22**	**0.36**	**0.037**	**25.3**	**0.091**	**0.00084 J**	**0.024**	**0.033**	**0.37**	**0.28**	**0.0084 J**	**8.1**	**0.2**	**0.01**	**0.0031 J**
Fluorene	mg/kg	30,000	**0.0012 J**	**0.0081 J**	0.0072 U	**2.8**	**0.0013 J**	0.007 U	**0.00074 J**	0.0073 U	**0.019 J**	**0.011**	0.011 U	**0.054 J**	**0.066**	**0.00075 J**	0.0081 U
Hexachloroethane	mg/kg	8	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.34**	**0.38**	**0.0064 J**	**3.2**	**0.025**	0.007 U	**0.0036 J**	**0.0063 J**	**0.14 J**	**0.081**	**0.0022 J**	**2.2**	**0.011**	**0.0028 J**	0.0081 U
Isophorone	mg/kg	2,400	0.075 U	0.085 U	0.073 U	0.074 U	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 U
Naphthalene	mg/kg	8.6	**0.03**	**0.097**	**0.0053 J**	**3.8**	**0.022**	0.007 U	**0.016**	**0.012**	**0.44**	**0.16**	0.0073 B	**0.19**	**0.29**	**0.02**	0.0041 B
N-Nitrosodiphenylamine	mg/kg	470	0.075 U	0.085 U	0.073 U	**0.017 J**	0.073 U	0.069 U	0.077 U	0.072 U	0.076 U	0.069 U	0.1 U	0.072 U	0.084 U	0.077 U	0.079 UJ
Pentachlorophenol	mg/kg	4	0.19 U	0.21 U	0.18 U	0.18 U	0.18 R	0.17 R	0.19 R	0.18 R	0.19 U	0.17 U	0.26 U	0.18 U	0.21 U	0.19 U	0.2 UJ
Phenanthrene	mg/kg		**0.18**	**0.29**	**0.023**	**22.5**	**0.073**	**0.00085 J**	**0.037**	**0.038**	**0.22**	**0.22**	0.0085 B	**4.3**	**0.29**	**0.034**	0.0054 B
Phenol	mg/kg	250,000	0.075 U	0.085 U	0.073 U	**0.024 J**	0.073 R	0.069 R	0.077 R	0.072 R	**0.029 J**	0.069 U	0.1 U	**0.063 J**	0.084 U	0.077 U	0.079 U
Pyrene	mg/kg	23,000	**0.17**	**0.34**	**0.029**	**22.4**	**0.073**	**0.00067 J**	**0.016**	**0.02**	**0.32**	**0.21**	**0.0066 J**	**7.5**	**0.14**	**0.0096**	**0.0017 J**

Table 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-020-SB-11* 10/27/2016	B18-020-SB-14* 10/27/2016	B18-021-SB-1* 10/25/2016	B18-021-SB-4* 10/25/2016	B18-022-SB-1 10/24/2016	B18-023-SB-1 10/24/2016	B18-023-SB-6 10/24/2016	B18-024-SB-1 10/24/2016	B18-024-SB-4 10/24/2016	B18-025-SB-1 10/19/2016	B18-025-SB-5 10/19/2016	B18-026-SB-1 10/19/2016	B18-026-SB-4 10/19/2016	B18-027-SB-1 10/17/2016	B18-027-SB-7 10/17/2016
PCBs																	
Aroclor 1248	mg/kg	0.94	0.0568 U	N/A	0.0535 U	N/A	0.0555 U	0.0539 U	N/A	0.0556 U	N/A	0.0509 U	N/A	0.0575 U	N/A	0.0734 U	N/A
Aroclor 1254	mg/kg	0.97	**0.408**	N/A	0.0535 U	N/A	0.0555 U	0.0539 U	N/A	0.0556 U	N/A	0.0509 U	N/A	0.0575 U	N/A	0.0734 U	N/A
Aroclor 1260	mg/kg	0.99	0.0568 U	N/A	0.0535 U	N/A	0.0555 U	0.0539 U	N/A	0.0556 U	N/A	0.0509 U	N/A	0.0575 U	N/A	0.0734 U	N/A
Aroclor 1268	mg/kg		0.0568 U	N/A	0.0535 U	N/A	0.0555 U	0.0539 U	N/A	0.0556 U	N/A	0.0509 U	N/A	0.0575 U	N/A	0.0734 U	N/A
PCBs (total)	mg/kg	0.97	**0.408**	N/A	0.0535 U	N/A	0.0555 U	0.0539 U	N/A	0.0556 U	N/A	0.0509 U	N/A	0.0575 U	N/A	0.0734 U	N/A
TPH/Oil & Grease																	
Diesel Range Organics	mg/kg	6,200	**22.6**	**46**	**26.5**	**310**	**26.2 J**	**19.9 J**	**12.5 J**	**26.4 J**	**49.7 J**	**37**	**10.1 J**	**183**	**25.1**	**37.2 J**	**5.1 J**
Gasoline Range Organics	mg/kg	6,200	14.4 U	15.1 U	9.8 U	9.8 U	10.8 U	10.4 U	16.8 U	9.3 U	12.9 U	6.2 U	19.7 U	11.9 U	22.3 U	12.3 U	14.9 U
Oil & Grease	mg/kg	6,200	250 B	194 B	312 B	685 B	**192**	**3,170**	**162**	**282**	**351**	**430**	**453**	**351**	**287**	**348**	**269**

Detections in bold **Values in red indicate exceedances of the Project Action Limit (PAL)**
^PAH compounds were analyzed via SIM
*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.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
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 was a quantitative estimate.
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 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-028-SB-1.5 10/18/2016	B18-028-SB-7 10/18/2016	B18-029-SB-2 10/18/2016	B18-029-SB-4 10/18/2016	B18-030-SB-1.5 10/18/2016	B18-030-SB-6 10/18/2016	B18-031-SB-1 10/18/2016	B18-031-SB-6 10/18/2016	B18-032-SB-1.5 10/18/2016	B18-032-SB-6 10/18/2016	B18-033-SB-1* 10/21/2016	B18-034-SB-1* 10/21/2016	B18-034-SB-5* 10/21/2016	B18-035-SB-1* 10/25/2016
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	36,000	N/A	0.0077 U	0.011 U	7.8 U	0.0063 U	0.0083 U	N/A	0.0075 U	N/A	N/A	N/A	N/A	0.006 U	0.0056 U
2-Butanone (MEK)	mg/kg	190,000	N/A	0.015 UJ	0.022 UJ	15.6 U	0.013 UJ	0.017 UJ	N/A	0.015 UJ	N/A	N/A	N/A	N/A	**0.011 J**	0.011 U
Acetone	mg/kg	670,000	N/A	0.015 U	0.022 U	**29.7 J**	0.013 U	0.017 U	N/A	0.015 U	N/A	N/A	N/A	N/A	0.026 B	0.041 B
Benzene	mg/kg	5.1	N/A	0.0077 U	**0.0078 J**	**2,550**	0.0063 U	0.0083 U	N/A	**0.02**	N/A	N/A	N/A	N/A	0.006 U	0.0056 U
Bromodichloromethane	mg/kg	1.3	N/A	0.0077 U	0.011 U	7.8 U	0.0063 U	0.0083 U	N/A	0.0075 U	N/A	N/A	N/A	N/A	0.006 U	0.0056 U
Chloroform	mg/kg	1.4	N/A	0.0077 U	0.011 U	7.8 U	0.0063 U	0.0083 U	N/A	0.0075 U	N/A	N/A	N/A	N/A	0.006 U	0.0056 U
Cyclohexane	mg/kg	27,000	N/A	0.015 U	0.022 U	15.6 U	0.013 U	0.017 U	N/A	**0.0052 J**	N/A	N/A	N/A	N/A	0.012 U	0.011 U
Ethylbenzene	mg/kg	25	N/A	0.0077 U	0.011 U	**41.9**	0.0063 U	0.0083 U	N/A	**0.0098**	N/A	N/A	N/A	N/A	0.006 U	0.0056 U
Isopropylbenzene	mg/kg	9,900	N/A	0.0077 U	0.011 U	7.8 U	0.0063 U	0.0083 U	N/A	0.0075 U	N/A	N/A	N/A	N/A	0.006 U	0.0056 U
Styrene	mg/kg	35,000	N/A	0.0077 UJ	0.011 UJ	**576**	0.0063 UJ	0.0083 UJ	N/A	0.0075 UJ	N/A	N/A	N/A	N/A	0.006 U	0.0056 U
Tetrachloroethene	mg/kg	100	N/A	0.0077 U	0.011 U	7.8 U	0.0063 U	0.0083 U	N/A	0.0075 U	N/A	N/A	N/A	N/A	0.006 U	0.0056 U
Toluene	mg/kg	47,000	N/A	0.0077 U	**0.0091 J**	**2,070**	0.0063 U	0.0083 U	N/A	**0.0073 J**	N/A	N/A	N/A	N/A	0.006 U	0.0056 U
Xylenes	mg/kg	2,800	N/A	0.023 U	0.033 U	**1,330**	0.019 U	0.025 U	N/A	**0.016 J**	N/A	N/A	N/A	N/A	0.018 U	0.017 U
Semi-Volatile Organic Compounds^																
1,1-Biphenyl	mg/kg	200	0.08 U	0.081 U	**5.4**	**5,760**	0.075 U	0.086 U	0.072 U	0.089 U	**0.26**	0.074 U	0.071 U	0.072 U	**0.021 J**	0.073 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.08 U	0.081 U	0.076 U	0.46 U	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
2,4-Dichlorophenol	mg/kg	2,500	0.08 U	0.081 U	0.076 U	23.2 UJ	0.075 U	0.086 R	0.072 U	0.089 U	**0.043 J**	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
2,4-Dimethylphenol	mg/kg	16,000	0.08 U	0.081 U	**1.2**	**37.7 J**	0.075 U	0.086 R	0.072 U	0.089 U	**0.082**	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
2,4-Dinitrophenol	mg/kg	1,600	0.2 UJ	0.2 UJ	0.19 UJ	1.2 UJ	0.19 UJ	0.22 R	0.18 UJ	0.22 UJ	0.19 UJ	0.19 UJ	0.18 U	0.18 U	0.19 U	0.18 U
2,4-Dinitrotoluene	mg/kg	7.4	0.08 U	0.081 U	0.076 U	0.46 U	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
2,6-Dinitrotoluene	mg/kg	1.5	0.08 U	0.081 U	0.076 U	**2.7**	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
2-Chloronaphthalene	mg/kg	60,000	0.08 U	0.081 U	0.076 U	0.46 U	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
2-Chlorophenol	mg/kg	5,800	0.08 U	0.081 U	0.076 U	0.46 U	0.075 U	0.086 R	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
2-Methylnaphthalene	mg/kg	3,000	0.028 B	**0.071**	**21.7**	**2,870**	0.075 U	**0.014**	**0.15**	0.088 U	**1.7**	**0.15**	**0.055**	**0.031**	**0.08**	**0.0053 J**
2-Methylphenol	mg/kg	41,000	0.08 U	0.081 U	**0.98**	0.46 U	0.075 U	0.086 R	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
2-Nitroaniline	mg/kg	8,000	0.2 U	0.2 U	0.19 U	1.2 U	0.19 U	0.22 U	0.18 U	0.22 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.16 U	0.16 U	**2.2**	0.93 U	0.15 U	0.17 R	0.14 U	0.18 U	0.15 U	0.15 U	0.14 U	0.14 U	0.15 U	**0.024 J**
3,3'-Dichlorobenzidine	mg/kg	5.1	0.08 U	0.081 U	0.076 UJ	0.46 UJ	0.075 UJ	0.086 U	0.072 U	0.089 UJ	0.076 U	0.074 UJ	0.071 U	0.072 U	0.076 U	0.073 U
4-Chloroaniline	mg/kg	11	0.08 U	0.081 U	0.076 U	23.2 UJ	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
Acenaphthene	mg/kg	45,000	0.08 U	0.0033 B	**6.7**	**443**	0.075 U	0.0085 U	**0.096**	0.088 U	0.06 B	0.0096 B	**0.0028 J**	**0.0027 J**	**0.02 J**	**0.0023 J**
Acenaphthylene	mg/kg	45,000	0.08 U	**0.0083**	**49.6**	**1,760**	**0.027 J**	0.0085 U	**1.8**	**0.043 J**	**2.1**	**0.18**	**0.016**	**0.0048 J**	**0.04 J**	**0.0014 J**
Acetophenone	mg/kg	120,000	0.08 U	0.081 U	**0.39**	0.46 U	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	**0.043 J**	0.071 U	0.072 U	0.076 U	0.073 U
Anthracene	mg/kg	230,000	0.08 U	**0.0029 J**	**260**	**2,680**	**0.015 J**	**0.0012 J**	**7**	**0.07 J**	**0.99**	**0.14**	**0.035**	**0.011**	**0.07 J**	**0.0077**
Benz[a]anthracene	mg/kg	21	0.08 U	**0.0014 J**	**362**	**1,920**	**0.21**	**0.0034 J**	**5.4**	**0.063 J**	**5.8**	**0.52**	**0.075**	**0.034**	**0.15**	**0.023**
Benzaldehyde	mg/kg	120,000	**0.023 J**	0.081 U	**0.34**	0.46 U	0.075 U	0.086 U	0.072 U	0.089 U	**2.6**	**0.097**	0.071 U	0.072 U	**0.021 J**	0.073 U
Benzo[a]pyrene	mg/kg	2.1	0.08 U	0.0082 U	**145**	**1,600**	**0.2**	**0.0021 J**	**4**	**0.036 J**	**5.9 J**	**0.51**	**0.059**	**0.037**	**0.18**	**0.019**
Benzo[b]fluoranthene	mg/kg	21	**0.026 J**	**0.0014 J**	**557**	**2,880**	**0.5**	**0.0052 J**	**6.3**	**0.059 J**	**10.6 J**	**1.2**	**0.14**	**0.098**	**0.42**	**0.036**
Benzo[g,h,i]perylene	mg/kg		**0.019 J**	0.0082 U	**80.3**	**558**	**0.14**	**0.0012 J**	**1.5**	0.088 U	**2.6 J**	**0.2**	**0.045**	**0.035**	**0.17**	**0.019**
Benzo[k]fluoranthene	mg/kg	210	**0.024 J**	**0.0013 J**	**503**	**2,600**	**0.47**	**0.0049 J**	**2.8**	**0.056 J**	**4.9 J**	**1.1**	**0.13**	**0.088**	**0.38**	**0.015**
bis(2-chloroethoxy)methane	mg/kg	2,500	0.08 U	0.081 U	0.076 U	23.2 UJ	0.075 U	0.086 U	0.072 U	0.089 U	**0.18**	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
bis(2-Chloroethyl)ether	mg/kg	1	0.08 U	0.081 U	0.076 U	0.46 U	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.08 U	0.081 U	0.076 UJ	0.46 UJ	0.075 UJ	0.086 U	**0.017 J**	0.089 UJ	0.076 UJ	0.074 UJ	0.071 U	0.072 U	**0.016 J**	0.073 U
Caprolactam	mg/kg	400,000	0.2 U	0.2 U	0.19 U	58.1 UJ	0.19 U	0.22 U	0.18 U	0.22 U	**0.37 J**	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U
Carbazole	mg/kg		0.08 U	0.081 U	**53.6**	**9,330**	**0.029 J**	0.086 U	**0.27**	0.089 U	**0.3**	**0.095**	0.071 U	0.072 U	**0.03 J**	0.073 U
Chrysene	mg/kg	2,100	0.08 U	**0.0009 J**	**345**	**1,740**	**0.21**	**0.0037 J**	**5.6**	**0.074 J**	**6.8**	**0.76**	**0.099**	**0.06**	**0.27**	**0.027**
Dibenz[a,h]anthracene	mg/kg	2.1	0.08 U	0.0082 U	**38.3**	**188**	**0.049 J**	0.0085 U	**0.47**	0.088 U	**1.1 J**	**0.087**	**0.014**	**0.0083**	**0.038 J**	**0.0041 J**
Diethylphthalate	mg/kg	660,000	0.08 U	0.081 U	0.076 U	0.46 U	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
Di-n-butylphthalate	mg/kg	82,000	0.08 U	0.081 U	3.8 U	23.2 U	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	**0.082**	0.073 U
Di-n-ocytlphthalate	mg/kg	8,200	0.08 U	0.081 U	0.076 UJ	0.46 U	0.075 UJ	0.086 U	0.072 U	**0.025 J**	0.076 UJ	0.074 UJ	0.071 U	0.072 U	0.076 U	0.073 U
Fluoranthene	mg/kg	30,000	0.019 B	0.0038 B	**951**	**7,950**	**0.19**	0.0057 B	**3.8**	**0.2**	**9.4**	**1**	**0.22**	**0.086**	**0.41**	**0.062**
Fluorene	mg/kg	30,000	0.08 U	**0.0092**	**13.4**	**2,710**	0.075 U	0.0085 U	**1.2**	0.017 B	**0.15**	0.034 B	**0.0015 J**	**0.0011 J**	**0.021 J**	**0.00081 J**
Hexachloroethane	mg/kg	8	0.08 U	0.081 U	0.076 U	0.46 U	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	0.08 U	0.0082 U	**90.6**	**567**	**0.14**	**0.0012 J**	**1.7**	0.088 U	**2.8 J**	**0.21**	**0.04**	**0.031**	**0.14**	**0.014**
Isophorone	mg/kg	2,400	0.08 U	0.081 U	0.076 U	23.2 UJ	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
Naphthalene	mg/kg	8.6	**0.24**	**1.3**	**59.6**	**29,300**	0.028 B	**0.1**	**0.43**	**0.33**	**3.9**	**0.32**	**0.077**	**0.033**	**0.16**	**0.012**
N-Nitrosodiphenylamine	mg/kg	470	0.08 U	0.081 U	3.8 U	23.2 U	0.075 U	0.086 U	0.072 U	0.089 U	0.076 U	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
Pentachlorophenol	mg/kg	4	0.2 U	0.2 U	9.5 U	58.1 U	0.19 U	0.22 R	0.18 U	0.22 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U
Phenanthrene	mg/kg		0.024 B	**0.011**	**887**	**17,900**	0.05 B	0.0067 B	**3.3**	**0.18**	**4.5**	**0.62**	**0.16**	**0.08**	**0.33**	**0.054**
Phenol	mg/kg	250,000	0.08 U	0.081 U	**1.5**	0.46 U	0.075 U	0.086 R	0.072 U	**0.066 J**	**0.038 J**	0.074 U	0.071 U	0.072 U	0.076 U	0.073 U
Pyrene	mg/kg	23,000	0.026 B	0.0038 B	**639**	**4,080**	**0.17**	0.0039 B	**11.6**	**0.14**	**7.7**	**0.92**	**0.17**	**0.07**	**0.38**	**0.063**

Table 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-028-SB-1.5 10/18/2016	B18-028-SB-7 10/18/2016	B18-029-SB-2 10/18/2016	B18-029-SB-4 10/18/2016	B18-030-SB-1.5 10/18/2016	B18-030-SB-6 10/18/2016	B18-031-SB-1 10/18/2016	B18-031-SB-6 10/18/2016	B18-032-SB-1.5 10/18/2016	B18-032-SB-6 10/18/2016	B18-033-SB-1* 10/21/2016	B18-034-SB-1* 10/21/2016	B18-034-SB-5* 10/21/2016	B18-035-SB-1* 10/25/2016
PCBs																
Aroclor 1248	mg/kg	0.94	0.0588 U	N/A	0.0576 U	N/A	0.0543 U	N/A	0.056 U	N/A	0.0595 U	N/A	0.0567 U	0.0621 U	N/A	0.0555 U
Aroclor 1254	mg/kg	0.97	0.0588 U	N/A	0.0576 U	N/A	0.0543 U	N/A	0.056 U	N/A	0.0595 U	N/A	0.0567 U	0.0621 U	N/A	0.0555 U
Aroclor 1260	mg/kg	0.99	0.0588 U	N/A	0.0576 U	N/A	0.0543 U	N/A	0.056 U	N/A	0.0595 U	N/A	0.0567 U	**0.0532 J**	N/A	0.0555 U
Aroclor 1268	mg/kg		0.0588 U	N/A	0.0576 U	N/A	0.0543 U	N/A	0.056 U	N/A	0.0595 U	N/A	0.0567 U	0.0621 U	N/A	0.0555 U
PCBs (total)	mg/kg	0.97	0.0588 U	N/A	0.0576 U	N/A	0.0543 U	N/A	0.056 U	N/A	0.0595 U	N/A	0.0567 U	**0.0532 J**	N/A	0.0555 U
TPH/Oil & Grease																
Diesel Range Organics	mg/kg	6,200	**129**	**4 J**	**5,860**	**106,000**	**21.2**	**11.3**	**77.6**	**18.5**	**365**	**108**	**31**	**212**	**456**	**50.6**
Gasoline Range Organics	mg/kg	6,200	12.7 U	17.6 U	23.5 U	**6,070**	12.4 U	21.5 U	10.3 U	13.2 U	**52.8**	12.6 U	10.3 U	10.3 U	11.2 U	**1,070**
Oil & Grease	mg/kg	6,200	**501**	**271**	**4,550**	**89,000**	**305**	**319**	**489**	**512**	**1,580**	**429**	**337**	**544**	**1,190**	401 B

Detections in bold **Values in red indicate exceedances of the Project Action Limit (PAL)**
^PAH compounds were analyzed via SIM
*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.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
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 was a quantitative estimate.
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 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-035-SB-4* 10/25/2016	B18-036-SB-1* 10/25/2016	B18-036-SB-5* 10/25/2016	B18-037-SB-1 10/20/2016	B18-037-SB-5 10/20/2016	B18-038-SB-1 10/20/2016	B18-039-SB-1 10/17/2016	B18-039-SB-4 10/17/2016	B18-040-SB-1 10/17/2016	B18-040-SB-8 10/17/2016	B18-041-SB-1 10/20/2016	B18-041-SB-7.5 10/20/2016	B18-042-SB-1* 10/21/2016	B18-042-SB-5* 10/21/2016	B18-043-SB-1* 10/21/2016
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	36,000	0.0063 U	N/A	N/A	0.005 U	0.0074 U	0.0057 U	N/A	0.0063 U	N/A	0.0076 U	0.0057 U	N/A	0.0059 U	0.0071 U	N/A
2-Butanone (MEK)	mg/kg	190,000	0.013 U	N/A	N/A	0.01 U	**0.0071 J**	0.011 U	N/A	0.013 UJ	N/A	0.015 UJ	0.011 U	N/A	0.012 U	0.014 U	N/A
Acetone	mg/kg	670,000	0.039 B	N/A	N/A	**0.0098 J**	**0.039 J**	**0.013 J**	N/A	**0.0087 J**	N/A	0.015 U	0.011 U	N/A	0.024 B	0.03 B	N/A
Benzene	mg/kg	5.1	0.0063 U	N/A	N/A	0.005 U	**0.0027 J**	0.0057 U	N/A	0.0063 U	N/A	0.0076 U	0.0057 U	N/A	0.0059 U	0.0071 U	N/A
Bromodichloromethane	mg/kg	1.3	0.0063 U	N/A	N/A	0.005 U	0.0074 U	0.0057 U	N/A	0.0063 U	N/A	0.0076 U	0.0057 U	N/A	0.0059 U	0.0071 U	N/A
Chloroform	mg/kg	1.4	0.0063 U	N/A	N/A	0.005 U	0.0074 U	0.0057 U	N/A	0.0063 U	N/A	0.0076 U	0.0057 U	N/A	0.0059 U	0.0071 U	N/A
Cyclohexane	mg/kg	27,000	0.013 U	N/A	N/A	0.01 U	0.015 U	0.011 U	N/A	0.013 U	N/A	0.015 U	0.011 U	N/A	0.012 U	0.014 U	N/A
Ethylbenzene	mg/kg	25	0.0063 U	N/A	N/A	0.005 U	0.0074 U	0.0057 U	N/A	0.0063 U	N/A	0.0076 U	0.0057 U	N/A	0.0059 U	0.0071 U	N/A
Isopropylbenzene	mg/kg	9,900	0.0063 U	N/A	N/A	0.005 U	0.0074 U	0.0057 U	N/A	0.0063 U	N/A	0.0076 U	0.0057 U	N/A	0.0059 U	0.0071 U	N/A
Styrene	mg/kg	35,000	0.0063 U	N/A	N/A	0.005 U	0.0074 U	0.0057 U	N/A	0.0063 U	N/A	0.0076 U	0.0057 U	N/A	0.0059 U	0.0071 U	N/A
Tetrachloroethene	mg/kg	100	0.0063 U	N/A	N/A	0.005 U	0.0074 U	0.0057 U	N/A	0.0063 U	N/A	0.0076 U	0.0057 U	N/A	0.0059 U	0.0071 U	N/A
Toluene	mg/kg	47,000	0.0063 U	N/A	N/A	0.005 U	**0.0027 J**	0.0057 U	N/A	0.0063 U	N/A	0.0076 U	0.0057 U	N/A	0.0059 U	0.0071 U	N/A
Xylenes	mg/kg	2,800	0.019 U	N/A	N/A	0.015 U	**0.0085 J**	0.017 U	N/A	0.019 U	N/A	0.023 U	0.017 U	N/A	0.018 U	0.021 U	N/A
Semi-Volatile Organic Compounds^																	
1,1-Biphenyl	mg/kg	200	**0.041 J**	**0.024 J**	0.075 U	**0.24**	**0.83**	**0.26 J**	0.078 U	0.08 U	**0.051 J**	0.083 U	**0.11 J**	**0.044 J**	**0.13**	**0.36**	0.074 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
2,4-Dichlorophenol	mg/kg	2,500	0.084 U	0.073 U	0.075 U	0.069 R	0.074 R	0.071 R	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
2,4-Dimethylphenol	mg/kg	16,000	**0.024 J**	0.073 U	0.075 U	**0.015 J**	**0.037 J**	**0.022 J**	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	**0.021 J**	0.082 U	0.078 U	0.074 U
2,4-Dinitrophenol	mg/kg	1,600	0.21 U	0.18 U	0.19 U	0.17 R	0.19 R	0.18 R	0.2 UJ	0.2 UJ	0.19 UJ	0.21 UJ	0.18 UJ	0.2 UJ	0.21 U	0.2 U	0.19 U
2,4-Dinitrotoluene	mg/kg	7.4	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
2,6-Dinitrotoluene	mg/kg	1.5	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
2-Chloronaphthalene	mg/kg	60,000	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
2-Chlorophenol	mg/kg	5,800	0.084 U	0.073 U	0.075 U	0.069 R	0.074 R	0.071 R	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
2-Methylnaphthalene	mg/kg	3,000	**0.22**	**0.19**	**0.0044 J**	**0.28**	**1.6**	**0.63**	**0.0046 J**	**0.0066 J**	**0.094**	0.0082 U	**0.39**	**0.5**	**0.79**	**3.4**	**0.67**
2-Methylphenol	mg/kg	41,000	**0.021 J**	0.073 U	0.075 U	**0.014 J**	**0.036 J**	**0.02 J**	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	**0.02 J**	0.082 U	**0.088**	0.074 U
2-Nitroaniline	mg/kg	8,000	0.21 U	0.18 U	0.19 U	0.17 U	0.19 U	0.18 U	0.2 U	0.2 U	0.19 U	0.21 U	0.18 U	0.2 U	0.21 U	0.2 U	0.19 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	**0.058 J**	**0.021 J**	0.15 U	**0.024 J**	**0.11 J**	**0.044 J**	0.16 U	0.16 U	0.15 U	0.17 U	0.15 U	**0.037 J**	0.16 U	**0.21**	**0.019 J**
3,3'-Dichlorobenzidine	mg/kg	5.1	0.084 U	0.073 U	0.075 U	0.069 UJ	0.074 UJ	**0.25 J**	0.078 U	0.08 U	0.076 U	0.083 U	0.073 UJ	0.079 UJ	0.082 U	0.078 U	0.074 U
4-Chloroaniline	mg/kg	11	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
Acenaphthene	mg/kg	45,000	**0.027 J**	**0.0084**	**0.00076 J**	**0.44**	**2.3**	**0.094**	0.0078 U	**0.00091 J**	0.077 U	0.0082 U	**0.11**	**0.13**	**0.045 J**	**0.037 J**	**0.031 J**
Acenaphthylene	mg/kg	45,000	**0.05 J**	**0.013**	**0.00085 J**	**1**	**13.7**	**2.1**	**0.0026 J**	**0.0022 J**	**0.66**	**0.00097 J**	**0.44**	**1.2**	**0.89**	**0.26**	**3.1**
Acetophenone	mg/kg	120,000	0.084 U	0.073 U	0.075 U	0.069 U	**0.032 J**	**0.058 J**	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	**0.043 J**	**0.37**	0.074 U
Anthracene	mg/kg	230,000	**0.12**	**0.041**	**0.0036 J**	**1.9**	**39.1**	**1.9**	**0.0021 J**	**0.0017 J**	**0.35**	**0.00077 J**	**0.46**	**1.9**	**0.37**	**0.44**	**0.53**
Benz[a]anthracene	mg/kg	21	**0.35**	**0.19**	**0.014**	**5.1**	**36.1**	**6**	**0.0058 J**	0.0079 U	**2.7**	**0.0024 J**	**3.4**	**6.8**	**1.7**	**2.4**	**2.7**
Benzaldehyde	mg/kg	120,000	**0.073 J**	0.073 U	0.075 U	0.069 R	0.074 R	0.071 R	0.078 U	0.08 U	0.076 U	0.083 U	0.073 R	**0.038 J**	**0.069 J**	**0.74**	**0.093**
Benzo[a]pyrene	mg/kg	2.1	**0.44**	**0.29**	**0.019**	**4.7**	**40.8 J**	**6.4**	**0.0035 J**	**0.0023 J**	**4.5**	**0.0012 J**	**5.7**	**6.2**	**2.2**	**2**	**4.1**
Benzo[b]fluoranthene	mg/kg	21	**0.83**	**0.46**	**0.03**	**8.8**	**75.9 J**	**11.8**	**0.015**	**0.015**	**12.5**	**0.0028 J**	**11**	**13.4**	**4.6**	**5.3**	**8.1**
Benzo[g,h,i]perylene	mg/kg		**0.23**	**0.26**	**0.012**	**2.3**	**14.1**	**2.6**	**0.0023 J**	**0.0029 J**	**5.6**	**0.0014 J**	**2.1**	**1.9**	**1.8**	**1.4**	**3.3**
Benzo[k]fluoranthene	mg/kg	210	**0.26**	**0.11**	**0.013**	**7.9**	**68.6 J**	**10.6**	**0.015**	**0.015**	**12**	**0.0027 J**	**9.9**	**12.1**	**4.1**	**4.8**	**7.3**
bis(2-chloroethoxy)methane	mg/kg	2,500	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
bis(2-Chloroethyl)ether	mg/kg	1	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	**0.028 J**	0.073 U	0.075 U	0.069 UJ	**0.84 J**	**0.13 J**	0.078 U	0.08 U	0.076 U	0.083 U	**0.11 J**	0.079 UJ	**0.067 J**	0.078 U	**0.099**
Caprolactam	mg/kg	400,000	**0.046 J**	**0.024 J**	0.19 U	0.17 U	0.19 U	0.18 U	0.2 U	0.2 U	0.19 U	0.21 U	0.18 U	0.2 U	**0.096 J**	**0.93**	**0.1 J**
Carbazole	mg/kg		**0.059 J**	**0.018 J**	0.075 U	**1.3**	**4**	**0.65 J**	0.078 U	0.08 U	**0.026 J**	0.083 U	**0.13 J**	**0.27**	**0.093**	**0.18**	**0.15**
Chrysene	mg/kg	2,100	**0.43**	**0.26**	**0.017**	**4.7**	**43.2**	**5.6**	**0.018**	**0.014**	**3.5**	**0.0011 J**	**4.2**	**6.8**	**2.2**	**3.4**	**3.5**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.081 J**	**0.072**	**0.0041 J**	**0.81**	**5.2**	**1.1**	0.0078 U	**0.0014 J**	**1.7**	0.0082 U	**0.72**	**0.84**	**0.61**	**0.71**	**1.3**
Diethylphthalate	mg/kg	660,000	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
Di-n-butylphthalate	mg/kg	82,000	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
Di-n-ocytlphthalate	mg/kg	8,200	0.084 U	0.073 U	0.075 U	0.069 UJ	0.074 UJ	0.071 UJ	0.078 U	0.08 U	0.076 U	0.041 B	0.073 UJ	0.079 UJ	0.082 U	0.078 U	0.074 U
Fluoranthene	mg/kg	30,000	**0.53**	**0.27**	**0.029**	**10.8**	**112**	**10.1**	**0.016**	**0.0095**	**2.3**	**0.0015 J**	**3.7**	**14.3**	**2.3**	**2.9**	**2.9**
Fluorene	mg/kg	30,000	**0.029 J**	**0.0086**	0.0075 U	**0.64**	**10.6**	**0.48**	**0.0011 J**	**0.0016 J**	**0.02 J**	0.0082 U	**0.087**	**0.46**	**0.048 J**	**0.074 J**	**0.099**
Hexachloroethane	mg/kg	8	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.22**	**0.22**	**0.012**	**2.3**	**21.2**	**2.8**	**0.0021 J**	**0.0017 J**	**5.5**	**0.0013 J**	**2**	**2.1**	**1.6**	**1.4**	**3.2**
Isophorone	mg/kg	2,400	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	**0.031 J**	0.074 U
Naphthalene	mg/kg	8.6	**0.3**	**0.14**	**0.0086**	**0.64**	**6.6**	**2.8**	**0.011**	**0.013**	**0.23**	**0.0096**	**1.7**	**1.1**	**1.5**	**4.8**	**1.5**
N-Nitrosodiphenylamine	mg/kg	470	0.084 U	0.073 U	0.075 U	0.069 U	0.074 U	0.071 U	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	0.079 U	0.082 U	0.078 U	0.074 U
Pentachlorophenol	mg/kg	4	0.21 U	0.18 U	0.19 U	0.17 R	0.19 R	0.18 R	0.2 U	0.2 U	0.19 U	0.21 U	0.18 U	0.2 U	0.21 U	0.2 U	0.19 U
Phenanthrene	mg/kg		**0.62**	**0.31**	**0.019**	**5.9**	**68.6**	**5.6**	**0.015**	**0.015**	**1.1**	0.0013 B	**1.2**	**5.6**	**1**	**3.6**	**1.1**
Phenol	mg/kg	250,000	**0.031 J**	0.073 U	0.075 U	**0.019 J**	**0.091 J**	**0.044 J**	0.078 U	0.08 U	0.076 U	0.083 U	0.073 U	**0.025 J**	0.082 U	**0.11**	0.074 U
Pyrene	mg/kg	23,000	**0.46**	**0.26**	**0.024**	**8.9**	**85.2**	**8.3**	**0.011**	**0.0052 J**	**2**	**0.0015 J**	**3.6**	**10.9**	**2.1**	**2.3**	**2.8**

Table 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-035-SB-4* 10/25/2016	B18-036-SB-1* 10/25/2016	B18-036-SB-5* 10/25/2016	B18-037-SB-1 10/20/2016	B18-037-SB-5 10/20/2016	B18-038-SB-1 10/20/2016	B18-039-SB-1 10/17/2016	B18-039-SB-4 10/17/2016	B18-040-SB-1 10/17/2016	B18-040-SB-8 10/17/2016	B18-041-SB-1 10/20/2016	B18-041-SB-7.5 10/20/2016	B18-042-SB-1* 10/21/2016	B18-042-SB-5* 10/21/2016	B18-043-SB-1* 10/21/2016
PCBs																	
Aroclor 1248	mg/kg	0.94	N/A	0.0561 U	N/A	0.0526 U	N/A	0.053 U	0.058 U	N/A	0.0591 U	N/A	0.0531 U	N/A	0.0562 U	N/A	0.0541 U
Aroclor 1254	mg/kg	0.97	N/A	0.0561 U	N/A	0.0526 U	N/A	0.053 U	0.058 U	N/A	0.0591 U	N/A	0.0531 U	N/A	**0.0634**	N/A	0.0541 U
Aroclor 1260	mg/kg	0.99	N/A	0.0561 U	N/A	0.0526 U	N/A	0.053 U	0.058 U	N/A	0.0591 U	N/A	0.0531 U	N/A	0.0562 U	N/A	**0.059**
Aroclor 1268	mg/kg		N/A	0.0561 U	N/A	0.0526 U	N/A	0.053 U	0.058 U	N/A	0.0591 U	N/A	0.0531 U	N/A	0.0562 U	N/A	0.0541 U
PCBs (total)	mg/kg	0.97	N/A	0.0561 U	N/A	0.0526 U	N/A	0.053 U	0.058 U	N/A	0.0591 U	N/A	0.0531 U	N/A	**0.0634**	N/A	**0.059**
TPH/Oil & Grease																	
Diesel Range Organics	mg/kg	6,200	**156**	**93.4**	**16.6**	**323**	**1,220**	**251**	**8.6 J**	**5.6 J**	**83.8 J**	**6.4 J**	**169**	**217**	**163**	**253**	**208**
Gasoline Range Organics	mg/kg	6,200	12.3 U	12.2 U	12.2 U	10.7 U	13.1 U	12.3 U	12 U	14.3 U	13.7 U	15.9 U	12.2 U	10.2 U	13.2 U	**20.8**	11.7 U
Oil & Grease	mg/kg	6,200	601 B	444 B	322 B	**3,570**	**3,600**	**2,750**	**309**	**456**	**603**	**375**	**1,140**	**461**	**1,020**	**370**	**1,170**

Detections in bold **Values in red indicate exceedances of the Project Action Limit (PAL)**
^PAH compounds were analyzed via SIM
*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.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
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 was a quantitative estimate.
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 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-043-SB-5* 10/21/2016	B18-046-SB-1* 10/26/2016	B18-046-SB-8* 10/26/2016	B18-047-SB-1 10/18/2016	B18-047-SB-4 10/18/2016	B18-048-SB-2 10/18/2016	B18-048-SB-4 10/18/2016	B18-049-SB-1 10/20/2016	B18-049-SB-4 10/20/2016	B18-050-SB-1 10/20/2016	B18-050-SB-5 10/20/2016	B18-051-SB-1 10/24/2016	B18-052-SB-1 10/24/2016	B18-053-SB-1* 10/25/2016	B18-053-SB-5* 10/25/2016
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	36,000	N/A	N/A	0.0063 U	0.0047 U	0.01 U	N/A	0.0084 U	N/A	**0.036 J**	N/A	N/A	N/A	N/A	N/A	N/A
2-Butanone (MEK)	mg/kg	190,000	N/A	N/A	**0.0034 J**	0.0094 U	0.02 UJ	N/A	0.017 UJ	N/A	0.012 UJ	N/A	N/A	N/A	N/A	N/A	N/A
Acetone	mg/kg	670,000	N/A	N/A	0.036 B	**0.03 J**	0.02 U	N/A	0.017 U	N/A	0.023 B	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	mg/kg	5.1	N/A	N/A	0.0063 U	0.0047 U	**0.035**	N/A	**0.0055 J**	N/A	**0.0081 J**	N/A	N/A	N/A	N/A	N/A	N/A
Bromodichloromethane	mg/kg	1.3	N/A	N/A	0.0063 U	0.0047 U	0.01 U	N/A	0.0084 U	N/A	0.0059 UJ	N/A	N/A	N/A	N/A	N/A	N/A
Chloroform	mg/kg	1.4	N/A	N/A	0.0063 U	0.0047 U	**0.0058 J**	N/A	0.0084 U	N/A	0.0059 U	N/A	N/A	N/A	N/A	N/A	N/A
Cyclohexane	mg/kg	27,000	N/A	N/A	0.013 U	0.0094 U	0.02 U	N/A	0.017 U	N/A	**0.0044 J**	N/A	N/A	N/A	N/A	N/A	N/A
Ethylbenzene	mg/kg	25	N/A	N/A	**0.016**	0.0047 U	0.01 U	N/A	0.0084 U	N/A	0.0059 U	N/A	N/A	N/A	N/A	N/A	N/A
Isopropylbenzene	mg/kg	9,900	N/A	N/A	**0.0061 J**	0.0047 U	0.01 U	N/A	0.0084 U	N/A	0.0059 UJ	N/A	N/A	N/A	N/A	N/A	N/A
Styrene	mg/kg	35,000	N/A	N/A	**0.006 J**	0.0047 U	**0.035 J**	N/A	0.0084 UJ	N/A	0.0059 U	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethene	mg/kg	100	N/A	N/A	0.0063 U	0.0047 U	0.01 U	N/A	0.0084 U	N/A	**0.013 J**	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	mg/kg	47,000	N/A	N/A	**0.013**	0.0047 U	**0.029**	N/A	0.0084 U	N/A	**0.0078 J**	N/A	N/A	N/A	N/A	N/A	N/A
Xylenes	mg/kg	2,800	N/A	N/A	**0.13**	0.014 U	**0.031**	N/A	0.025 U	N/A	0.018 U	N/A	N/A	N/A	N/A	N/A	N/A
Semi-Volatile Organic Compounds^																	
1,1-Biphenyl	mg/kg	200	**0.63**	0.074 U	**2.3**	**0.13 J**	5.1 U	**0.14**	**0.037 J**	**4.9**	**0.22**	**0.053 J**	**0.82**	0.072 U	0.074 U	0.073 U	0.075 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.085 U	0.074 U	0.071 U	0.072 U	0.1 U	0.072 U	0.091 U	0.079 U	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
2,4-Dichlorophenol	mg/kg	2,500	0.085 U	0.074 U	0.071 U	0.072 R	0.1 U	0.072 U	0.091 R	0.079 R	0.078 U	0.075 R	0.079 UJ	0.072 R	0.074 R	0.073 U	0.075 U
2,4-Dimethylphenol	mg/kg	16,000	**0.056 J**	0.074 U	**0.24**	**0.025 J**	**0.92**	**0.027 J**	0.091 R	**0.18 J**	**0.035 J**	0.075 R	**0.097 J**	0.072 R	0.074 R	0.073 U	0.075 U
2,4-Dinitrophenol	mg/kg	1,600	0.21 U	0.18 U	0.18 U	0.18 R	0.25 UJ	0.18 UJ	0.23 R	0.2 R	0.19 UJ	0.19 R	0.2 UJ	0.18 R	0.19 R	0.18 U	0.19 U
2,4-Dinitrotoluene	mg/kg	7.4	0.085 U	0.074 U	0.071 U	0.072 U	0.1 U	0.072 U	0.091 U	0.079 R	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
2,6-Dinitrotoluene	mg/kg	1.5	0.085 U	0.074 U	0.071 U	0.072 U	0.1 U	0.072 U	0.091 U	0.079 U	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
2-Chloronaphthalene	mg/kg	60,000	0.085 U	0.074 U	0.071 U	0.072 U	0.1 U	0.072 U	0.091 U	0.079 U	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
2-Chlorophenol	mg/kg	5,800	0.085 U	0.074 U	0.071 U	0.072 R	**0.93**	0.072 U	0.091 R	0.079 R	0.078 U	0.075 R	0.079 UJ	0.072 R	0.074 R	0.073 U	0.075 U
2-Methylnaphthalene	mg/kg	3,000	**1.4**	**0.01**	**16.4**	**0.55**	**22.9**	**0.48**	**0.1**	**2.3**	**2**	**0.075 J**	**2.6**	**0.0069 J**	**0.011**	**0.0025 J**	0.0075 U
2-Methylphenol	mg/kg	41,000	**0.045 J**	0.074 U	0.071 U	**0.025 J**	**1**	0.072 U	0.091 R	**0.1 J**	**0.017 J**	0.075 R	**0.083 J**	0.072 R	0.074 R	0.073 U	0.075 U
2-Nitroaniline	mg/kg	8,000	0.21 U	0.18 U	0.18 U	0.18 U	**0.13 J**	0.18 U	0.23 U	0.2 U	0.19 U	0.19 U	0.2 U	0.18 U	0.19 U	0.18 U	0.19 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	**0.11 J**	0.15 U	0.14 U	**0.067 J**	**2.4**	**0.048 J**	0.18 R	**0.32 J**	**0.033 J**	0.15 R	**0.27 J**	0.14 R	0.15 R	0.15 U	0.15 U
3,3'-Dichlorobenzidine	mg/kg	5.1	0.085 U	0.074 U	**0.66**	0.072 UJ	0.1 UJ	0.072 U	0.091 U	0.079 R	0.078 UJ	0.075 UJ	0.079 UJ	0.072 U	0.074 U	0.073 U	0.075 U
4-Chloroaniline	mg/kg	11	0.085 U	0.074 U	0.071 U	0.072 U	0.1 U	0.072 U	0.091 U	0.079 U	0.078 U	0.075 U	0.079 U	0.072 UJ	0.074 UJ	0.073 U	0.075 U
Acenaphthene	mg/kg	45,000	**0.27**	**0.00061 J**	**1.2**	**0.12**	**31.5**	0.027 B	0.0029 B	**0.77**	**0.053 J**	**0.014 J**	**0.38**	0.0072 U	**0.0019 J**	**0.00097 J**	**0.00055 J**
Acenaphthylene	mg/kg	45,000	**3.4**	**0.0032 J**	**0.24**	**1.6**	**171**	**1.1**	**0.017**	**11.9**	**1.8**	**0.29**	**5.6**	0.0072 U	0.0074 U	**0.00068 J**	0.0075 U
Acetophenone	mg/kg	120,000	0.085 U	0.074 U	0.071 U	**0.018 J**	0.1 U	0.072 U	0.091 U	**0.13**	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
Anthracene	mg/kg	230,000	**3.5**	**0.0034 J**	**1.7**	**1.5**	**280**	**0.79**	**0.059**	**5.1**	**0.82**	**0.14**	**8.1**	0.0072 U	**0.0079**	**0.0034 J**	**0.0015 J**
Benz[a]anthracene	mg/kg	21	**7.7**	**0.011**	**1.6**	**7.9**	**589**	**3.8**	**0.025**	**14.1**	**1.2**	**0.41**	**11.9**	**0.0039 J**	**0.022**	**0.0098**	**0.0037 J**
Benzaldehyde	mg/kg	120,000	0.085 U	0.074 U	**0.2**	0.072 U	**0.36**	0.072 U	0.091 U	**0.13 J**	**0.17 J**	0.075 R	0.079 R	0.072 U	0.074 U	0.073 U	0.075 U
Benzo[a]pyrene	mg/kg	2.1	**8.9**	**0.012**	**1.3**	**7.3**	**386**	**4.5 J**	**0.017**	**37.5 J**	**1.6**	**0.45**	**9.3**	**0.0031 J**	**0.014**	**0.0082**	**0.0028 J**
Benzo[b]fluoranthene	mg/kg	21	**14.8**	**0.027**	**0.9**	**11.1**	**782**	**8.3 J**	**0.031**	**73.7 J**	**3.5**	**1.2**	**15.2**	**0.012**	**0.044**	**0.012**	**0.0067 J**
Benzo[g,h,i]perylene	mg/kg		**5.1**	**0.01**	**0.74**	**2.9**	**129**	**2.4 J**	**0.0085 J**	**12.4**	**1.9**	**0.24**	**2.7**	**0.0037 J**	**0.014**	**0.0058 J**	**0.0025 J**
Benzo[k]fluoranthene	mg/kg	210	**13.4**	**0.022**	**0.72**	**4.4**	**707**	**3.1 J**	**0.015**	**66.6 J**	**3.2**	**1.1**	**6.4**	**0.0092**	**0.034**	**0.005 J**	**0.0057 J**
bis(2-chloroethoxy)methane	mg/kg	2,500	0.085 U	0.074 U	0.071 U	0.072 U	0.1 U	0.072 U	0.091 U	0.079 U	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
bis(2-Chloroethyl)ether	mg/kg	1	0.085 U	0.074 U	0.071 U	0.072 U	0.1 U	0.072 U	0.091 U	0.079 U	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.085 U	0.074 U	0.071 U	0.072 UJ	**0.9 J**	0.072 UJ	0.091 U	**0.81**	0.078 UJ	**0.11 J**	**1.3 J**	0.072 U	0.074 U	0.073 U	0.075 U
Caprolactam	mg/kg	400,000	0.21 U	0.18 U	0.18 U	**0.022 J**	0.25 U	0.18 U	0.23 U	0.2 U	0.19 U	0.19 U	0.2 U	0.18 U	0.19 U	0.18 U	0.19 U
Carbazole	mg/kg		**0.54**	0.074 U	0.071 U	**0.87 J**	**7.1**	**0.36**	0.091 U	**1.1**	**0.19**	**0.055 J**	**5.5**	0.072 U	0.074 U	0.073 U	0.075 U
Chrysene	mg/kg	2,100	**7.9**	**0.014**	**2.5**	**7.5**	**501**	**4.3**	**0.031**	**23.1**	**1.4**	**0.56**	**11.4**	**0.0081**	**0.032**	**0.01**	**0.0036 J**
Dibenz[a,h]anthracene	mg/kg	2.1	**1.9**	**0.0027 J**	**0.2**	**1.2**	**73.9**	**0.94 J**	**0.0025 J**	**3.7**	**0.24**	**0.072 J**	**1.1**	0.0072 U	**0.0038 J**	**0.0016 J**	0.0075 U
Diethylphthalate	mg/kg	660,000	0.085 U	0.074 U	0.071 U	0.072 U	0.1 U	0.072 U	0.091 U	0.079 U	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
Di-n-butylphthalate	mg/kg	82,000	0.085 U	0.074 U	0.071 U	0.072 U	5.1 U	0.072 U	0.091 U	**0.33**	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
Di-n-ocytlphthalate	mg/kg	8,200	0.085 U	0.074 U	0.071 U	0.072 UJ	0.1 UJ	0.072 UJ	0.091 U	0.079 UJ	0.078 UJ	0.075 UJ	0.079 UJ	0.072 U	0.074 U	0.073 U	0.075 U
Fluoranthene	mg/kg	30,000	**10.1**	**0.023**	**0.72**	**12.1**	**1,600**	**4.4**	**0.15**	**51.6**	**1.9**	**0.83**	**25.3**	**0.016**	**0.09**	**0.022**	**0.011**
Fluorene	mg/kg	30,000	**0.89**	**0.0017 J**	**1.2**	**0.51**	**116**	**0.1**	**0.016**	**2.6**	**0.099**	**0.019 J**	**5.1**	0.0072 U	**0.0011 J**	0.0073 U	0.0075 U
Hexachloroethane	mg/kg	8	0.085 U	0.074 U	0.071 U	0.072 U	0.1 U	0.072 U	0.091 U	0.079 U	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**5.1**	**0.008**	**0.13**	**3.2**	**145**	**2.5 J**	**0.0081 J**	**12.4**	**0.83**	**0.24**	**3.1**	**0.0029 J**	**0.011**	**0.0048 J**	**0.0018 J**
Isophorone	mg/kg	2,400	0.085 U	0.074 U	0.071 U	0.072 U	0.1 U	0.072 U	0.091 U	0.079 U	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
Naphthalene	mg/kg	8.6	**8**	**0.078**	**3.8**	**5.5**	**66.2**	**2.2**	**0.95**	**12.3**	**2.6**	**0.27**	**11.7**	0.0045 B	**0.011**	**0.0054 J**	**0.0039 J**
N-Nitrosodiphenylamine	mg/kg	470	0.085 U	0.074 U	0.071 U	0.072 U	0.1 UJ	0.072 U	0.091 U	0.079 U	0.078 U	0.075 U	0.079 U	0.072 U	0.074 U	0.073 U	0.075 U
Pentachlorophenol	mg/kg	4	0.21 U	0.18 U	0.18 U	0.18 R	0.25 UJ	0.18 U	0.23 R	0.2 R	0.19 U	0.19 R	0.2 UJ	0.18 R	0.19 R	0.18 U	0.19 U
Phenanthrene	mg/kg		**4**	**0.018**	**10.2**	**3.9**	**584**	**2.1**	**0.28**	**12**	**2**	**0.43**	**14.2**	**0.017**	**0.076**	**0.02**	**0.014**
Phenol	mg/kg	250,000	**0.049 J**	0.074 U	0.071 U	**0.037 J**	**1.9**	0.072 U	0.091 R	**0.13 J**	0.078 U	0.075 R	**0.23 J**	0.072 R	0.074 R	0.073 U	0.075 U
Pyrene	mg/kg	23,000	**7.9**	**0.02**	**10**	**10.4**	**920**	**3.7**	**0.067**	**68.3**	**2.5**	**0.74**	**23.7**	**0.0089**	**0.065**	**0.018**	**0.0085**

Table 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-043-SB-5* 10/21/2016	B18-046-SB-1* 10/26/2016	B18-046-SB-8* 10/26/2016	B18-047-SB-1 10/18/2016	B18-047-SB-4 10/18/2016	B18-048-SB-2 10/18/2016	B18-048-SB-4 10/18/2016	B18-049-SB-1 10/20/2016	B18-049-SB-4 10/20/2016	B18-050-SB-1 10/20/2016	B18-050-SB-5 10/20/2016	B18-051-SB-1 10/24/2016	B18-052-SB-1 10/24/2016	B18-053-SB-1* 10/25/2016	B18-053-SB-5* 10/25/2016
PCBs																	
Aroclor 1248	mg/kg	0.94	N/A	0.0588 U	N/A	0.0548 U	N/A	0.0551 U	N/A	0.065 U	N/A	0.0559 U	N/A	0.0542 U	0.0555 U	0.0549 U	N/A
Aroclor 1254	mg/kg	0.97	N/A	0.0588 U	N/A	0.0548 U	N/A	0.0551 U	N/A	0.065 U	N/A	0.0559 U	N/A	0.0542 U	0.0555 U	0.0549 U	N/A
Aroclor 1260	mg/kg	0.99	N/A	0.0588 U	N/A	0.0548 U	N/A	0.0551 U	N/A	**0.453 J**	N/A	0.0559 U	N/A	0.0542 U	0.0555 U	0.0549 U	N/A
Aroclor 1268	mg/kg		N/A	0.0588 U	N/A	0.0548 U	N/A	0.0551 U	N/A	0.065 U	N/A	0.0559 U	N/A	0.0542 U	0.0555 U	0.0549 U	N/A
PCBs (total)	mg/kg	0.97	N/A	0.0588 U	N/A	0.0548 U	N/A	0.0551 U	N/A	**0.453 J**	N/A	0.0559 U	N/A	0.0542 U	0.0555 U	0.0549 U	N/A
TPH/Oil & Grease																	
Diesel Range Organics	mg/kg	6,200	**739**	**19.8**	**2,780**	**200**	**14,700**	**249**	**17.3**	**3,130**	**485**	**86.1**	**1,510**	**54.6 J**	**71.8 J**	**18.4**	**9**
Gasoline Range Organics	mg/kg	6,200	15.3 U	10.7 U	13.9 U	11 U	20.9 U	12.8 U	19.9 U	15.6 U	15 U	11.1 U	15.8 U	9 U	10.6 U	10.9 U	10.9 U
Oil & Grease	mg/kg	6,200	**2,660**	245 B	**8,780**	**1,760**	**41,400**	**923**	**338**	**16,200**	**1,840**	**928**	**8,890**	**304**	**442**	396 B	257 B

Detections in bold **Values in red indicate exceedances of the Project Action Limit (PAL)**
^PAH compounds were analyzed via SIM
*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.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
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 was a quantitative estimate.
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 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-054-SB-1* 10/25/2016	B18-054-SB-5* 10/25/2016	B18-055-SB-1* 10/25/2016	B18-055-SB-5* 10/25/2016	B18-055-SB-10* 10/25/2016	B18-056-SB-1* 10/25/2016	B18-057-SB-1 10/19/2016	B18-057-SB-4 10/19/2016	B18-058-SB-1 10/20/2016	B18-059-SB-1 10/18/2016	B18-059-SB-7.5 10/18/2016	B18-060-SB-1 10/17/2016	B18-060-SB-5 10/17/2016	B18-061-SB-1* 10/26/2016
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	36,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0087 U	N/A	N/A	0.0095 U	N/A	N/A	0.0065 U
2-Butanone (MEK)	mg/kg	190,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.017 U	N/A	N/A	**0.0076 J**	N/A	N/A	0.013 U
Acetone	mg/kg	670,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.0098 J**	N/A	N/A	**0.036 J**	N/A	N/A	0.029 B
Benzene	mg/kg	5.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0087 U	N/A	N/A	**0.0045 J**	N/A	N/A	0.0065 U
Bromodichloromethane	mg/kg	1.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0087 U	N/A	N/A	0.0095 U	N/A	N/A	0.0065 U
Chloroform	mg/kg	1.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0087 U	N/A	N/A	0.0095 U	N/A	N/A	**0.013**
Cyclohexane	mg/kg	27,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.017 U	N/A	N/A	0.019 U	N/A	N/A	0.013 U
Ethylbenzene	mg/kg	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0087 U	N/A	N/A	0.0095 U	N/A	N/A	0.0065 U
Isopropylbenzene	mg/kg	9,900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0087 U	N/A	N/A	0.0095 U	N/A	N/A	0.0065 U
Styrene	mg/kg	35,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0087 U	N/A	N/A	0.0095 UJ	N/A	N/A	0.0065 U
Tetrachloroethene	mg/kg	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0087 U	N/A	N/A	0.0095 U	N/A	N/A	0.0065 U
Toluene	mg/kg	47,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0087 U	N/A	N/A	0.0095 U	N/A	N/A	0.0065 U
Xylenes	mg/kg	2,800	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.026 U	N/A	N/A	**0.0075 J**	N/A	N/A	0.019 U
Semi-Volatile Organic Compounds^																
1,1-Biphenyl	mg/kg	200	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	**0.14**	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
2,4-Dichlorophenol	mg/kg	2,500	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 R	0.089 R	0.072 R	0.071 R	0.096 R	0.071 R	0.075 U	0.077 U
2,4-Dimethylphenol	mg/kg	16,000	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 R	0.089 R	**0.022 J**	0.071 R	0.096 R	0.071 R	0.075 U	0.077 U
2,4-Dinitrophenol	mg/kg	1,600	0.18 U	0.18 U	0.18 U	0.21 U	N/A	0.18 U	0.18 R	0.22 R	0.18 R	0.18 R	0.24 R	0.18 R	0.19 UJ	**0.076 J**
2,4-Dinitrotoluene	mg/kg	7.4	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
2,6-Dinitrotoluene	mg/kg	1.5	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	**0.16**
2-Chloronaphthalene	mg/kg	60,000	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
2-Chlorophenol	mg/kg	5,800	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 R	0.089 R	0.072 R	0.071 R	0.096 R	0.071 R	0.075 U	0.077 U
2-Methylnaphthalene	mg/kg	3,000	**0.0076**	**0.014**	**0.0044 J**	**0.056**	N/A	**0.017**	**2.2**	**0.0043 J**	**0.15**	**0.013**	**0.016**	**0.055**	**0.25**	**1.3**
2-Methylphenol	mg/kg	41,000	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 R	0.089 R	**0.024 J**	0.071 R	0.096 R	0.071 R	0.075 U	0.077 U
2-Nitroaniline	mg/kg	8,000	0.18 U	0.18 U	0.18 U	0.21 U	N/A	0.18 U	0.18 U	0.22 U	0.18 U	0.18 U	0.24 U	0.18 U	0.19 U	0.19 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.15 U	0.15 U	0.15 U	0.17 U	N/A	0.14 U	0.14 R	0.18 R	**0.038 J**	0.14 R	0.19 R	0.14 R	0.15 U	0.15 U
3,3'-Dichlorobenzidine	mg/kg	5.1	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 UJ	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
4-Chloroaniline	mg/kg	11	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
Acenaphthene	mg/kg	45,000	**0.0006 J**	**0.0038 J**	**0.00068 J**	**0.039**	N/A	**0.0044 J**	**0.76**	0.009 U	**0.071 J**	0.0017 B	**0.012**	**0.0033 J**	0.0076 U	**0.056 J**
Acenaphthylene	mg/kg	45,000	**0.0051 J**	**0.0039 J**	**0.0006 J**	**0.022**	N/A	**0.0038 J**	**0.44**	**0.0027 J**	**1.2**	**0.013**	**0.023**	**0.14**	**0.58**	**0.97**
Acetophenone	mg/kg	120,000	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	**0.025 J**	0.077 U
Anthracene	mg/kg	230,000	**0.0079**	**0.01**	**0.003 J**	**0.05**	N/A	**0.016**	**1.8**	**0.002 J**	**0.76**	**0.028**	**0.044**	**0.085**	**0.16**	**0.54**
Benz[a]anthracene	mg/kg	21	**0.028**	**0.034**	**0.0092**	**0.15**	N/A	**0.058**	**3.6**	**0.0061 J**	**2.6**	**0.033**	**0.037**	**0.48**	**2.7**	**1.6**
Benzaldehyde	mg/kg	120,000	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 R	0.089 R	0.072 R	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
Benzo[a]pyrene	mg/kg	2.1	**0.025**	**0.033**	**0.007 J**	**0.16**	**0.035**	**0.068**	**3.2**	**0.0045 J**	**3.1**	**0.026**	**0.026**	**0.41**	**5.4**	**1.3**
Benzo[b]fluoranthene	mg/kg	21	**0.041**	**0.046**	**0.018**	**0.32**	N/A	**0.1**	**7**	**0.0098**	**5.3**	**0.081**	**0.061**	**0.84**	**10.6**	**3.9**
Benzo[g,h,i]perylene	mg/kg		**0.019**	**0.023**	**0.006 J**	**0.091**	N/A	**0.055**	**1.7**	**0.0056 J**	**2.1**	**0.016**	**0.0083 J**	**0.22**	**5.3**	**0.92**
Benzo[k]fluoranthene	mg/kg	210	**0.017**	**0.018**	**0.015**	**0.27**	N/A	**0.035**	**6.4**	**0.0088 J**	**4.8**	**0.076**	**0.058**	**0.81**	**9.6**	**3.1**
bis(2-chloroethoxy)methane	mg/kg	2,500	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
bis(2-Chloroethyl)ether	mg/kg	1	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.03 B	0.089 U	**0.15 J**	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
Caprolactam	mg/kg	400,000	0.18 U	0.18 U	0.18 U	0.21 U	N/A	0.18 U	0.18 U	0.22 U	0.18 U	0.18 U	0.24 U	0.18 U	**0.11 J**	0.19 U
Carbazole	mg/kg		0.074 U	0.073 U	0.073 U	**0.079 J**	N/A	0.072 U	**0.25**	0.089 U	**0.49**	0.071 U	**0.026 J**	**0.032 J**	**0.041 J**	**0.075 J**
Chrysene	mg/kg	2,100	**0.029**	**0.036**	**0.012**	**0.19**	N/A	**0.065**	**4.4**	**0.0052 J**	**2.7**	**0.055**	**0.04**	**0.49**	**3.1**	**1.7**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.0054 J**	**0.0071 J**	**0.0016 J**	**0.032**	N/A	**0.015**	**0.82**	0.009 U	**0.54**	**0.0048 J**	**0.0035 J**	**0.084**	**1**	**0.36**
Diethylphthalate	mg/kg	660,000	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
Di-n-butylphthalate	mg/kg	82,000	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
Di-n-ocytlphthalate	mg/kg	8,200	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 UJ	0.089 U	0.072 UJ	0.071 U	0.096 U	0.071 UJ	0.075 UJ	0.077 U
Fluoranthene	mg/kg	30,000	**0.068**	**0.083**	**0.032**	**0.28**	N/A	**0.13**	**7**	**0.014**	**5.6**	**0.11**	**0.12**	**0.79**	**2.2**	**2.8**
Fluorene	mg/kg	30,000	0.0076 U	**0.0013 J**	0.0072 U	**0.041**	N/A	**0.0013 J**	**0.76**	0.009 U	**0.13**	**0.01**	**0.026**	**0.0097**	**0.017**	**0.095**
Hexachloroethane	mg/kg	8	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.017**	**0.021**	**0.0045 J**	**0.088**	N/A	**0.048**	**1.8**	**0.0034 J**	**1.8**	**0.015**	**0.0093 J**	**0.23**	**4.6**	**0.91**
Isophorone	mg/kg	2,400	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	**0.03 J**
Naphthalene	mg/kg	8.6	**0.012**	**0.023**	**0.0073**	**0.18**	N/A	**0.021**	**3.4**	**0.012**	**0.69**	**0.027**	**0.065**	**0.089**	**0.43**	**1.5**
N-Nitrosodiphenylamine	mg/kg	470	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 U	0.089 U	0.072 U	0.071 U	0.096 U	0.071 U	0.075 U	0.077 U
Pentachlorophenol	mg/kg	4	0.18 U	0.18 U	0.18 U	0.21 U	N/A	0.18 U	0.18 R	0.22 R	0.18 R	0.18 R	0.24 R	0.18 R	0.19 U	0.19 U
Phenanthrene	mg/kg		**0.049**	**0.072**	**0.026**	**0.28**	N/A	**0.094**	**6.6**	**0.013**	**2.2**	**0.09**	**0.14**	**0.28**	**0.64**	**2.1**
Phenol	mg/kg	250,000	0.074 U	0.073 U	0.073 U	0.083 U	N/A	0.072 U	0.072 R	0.089 R	**0.03 J**	0.071 R	**0.052 J**	0.071 R	0.075 U	0.077 U
Pyrene	mg/kg	23,000	**0.052**	**0.072**	**0.026**	**0.25**	N/A	**0.11**	**5.1**	**0.011**	**4.9**	**0.086**	**0.087**	**0.65**	**2.7**	**2.3**

Table 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-054-SB-1* 10/25/2016	B18-054-SB-5* 10/25/2016	B18-055-SB-1* 10/25/2016	B18-055-SB-5* 10/25/2016	B18-055-SB-10* 10/25/2016	B18-056-SB-1* 10/25/2016	B18-057-SB-1 10/19/2016	B18-057-SB-4 10/19/2016	B18-058-SB-1 10/20/2016	B18-059-SB-1 10/18/2016	B18-059-SB-7.5 10/18/2016	B18-060-SB-1 10/17/2016	B18-060-SB-5 10/17/2016	B18-061-SB-1* 10/26/2016
PCBs																
Aroclor 1248	mg/kg	0.94	0.0554 U	N/A	0.0547 U	N/A	N/A	0.0531 U	0.0552 U	N/A	0.0541 U	0.0554 U	N/A	0.0539 U	N/A	0.079 U
Aroclor 1254	mg/kg	0.97	0.0554 U	N/A	0.0547 U	N/A	N/A	0.0531 U	0.0552 U	N/A	0.0541 U	0.0554 U	N/A	0.0539 U	N/A	0.079 U
Aroclor 1260	mg/kg	0.99	0.0554 U	N/A	0.0547 U	N/A	N/A	0.0531 U	0.0552 U	N/A	0.0541 U	0.0554 U	N/A	0.0539 U	N/A	0.079 U
Aroclor 1268	mg/kg		0.0554 U	N/A	0.0547 U	N/A	N/A	0.0531 U	0.0552 U	N/A	0.0541 U	0.0554 U	N/A	0.0539 U	N/A	**0.0811**
PCBs (total)	mg/kg	0.97	0.0554 U	N/A	0.0547 U	N/A	N/A	0.0531 U	0.0552 U	N/A	0.0541 U	0.0554 U	N/A	0.0539 U	N/A	**0.0811**
TPH/Oil & Grease																
Diesel Range Organics	mg/kg	6,200	**18.6**	**27.9**	**24.6**	**76.2**	N/A	**35.1**	**181**	**11.6**	**143**	**43.4**	**161**	**47.8 J**	**82.4 J**	**197**
Gasoline Range Organics	mg/kg	6,200	10.3 U	9.6 U	9.9 U	12.5 U	N/A	10.1 U	12.7 U	22.8 U	12.1 U	9.5 U	15.9 U	10.6 U	19.7 U	14.1 U
Oil & Grease	mg/kg	6,200	352 B	326 B	449 B	**1,460**	N/A	370 B	**1,950**	**418**	**1,460**	**164**	**375**	**349**	**484**	**2,720**

Detections in bold **Values in red indicate exceedances of the Project Action Limit (PAL)**
^PAH compounds were analyzed via SIM
*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.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
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 was a quantitative estimate.
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 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-061-SB-4* 10/26/2016	B18-066-SB-1 10/24/2016	B18-066-SB-4 10/24/2016	B18-067-SB-1 10/24/2016	B18-067-SB-4 10/24/2016	B18-068-SB-1* 10/21/2016	B18-068-SB-9* 10/21/2016	B18-069-SB-1* 10/21/2016	B18-069-SB-8* 10/21/2016	B18-070-SB-1* 10/26/2016	B18-070-SB-5* 10/26/2016	B18-071-SB-1* 10/26/2016	B18-071-SB-5* 10/26/2016	B18-072-SB-1* 10/26/2016
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	36,000	0.0091 U	N/A	N/A	N/A	0.0061 U	N/A	0.0069 U	N/A	0.0073 U	N/A	0.0059 U	N/A	N/A	N/A
2-Butanone (MEK)	mg/kg	190,000	0.018 U	N/A	N/A	N/A	0.012 U	N/A	0.014 U	N/A	0.015 U	N/A	0.012 U	N/A	N/A	N/A
Acetone	mg/kg	670,000	0.036 B	N/A	N/A	N/A	0.026 B	N/A	0.027 B	N/A	0.035 B	N/A	0.026 B	N/A	N/A	N/A
Benzene	mg/kg	5.1	0.0091 U	N/A	N/A	N/A	0.0061 U	N/A	0.0069 U	N/A	0.0073 U	N/A	0.0059 U	N/A	N/A	N/A
Bromodichloromethane	mg/kg	1.3	0.0091 U	N/A	N/A	N/A	0.0061 U	N/A	0.0069 U	N/A	0.0073 U	N/A	0.0059 U	N/A	N/A	N/A
Chloroform	mg/kg	1.4	0.0091 U	N/A	N/A	N/A	0.0061 U	N/A	0.0069 U	N/A	0.0073 U	N/A	0.0059 U	N/A	N/A	N/A
Cyclohexane	mg/kg	27,000	0.018 U	N/A	N/A	N/A	0.012 U	N/A	0.014 U	N/A	0.015 U	N/A	0.012 U	N/A	N/A	N/A
Ethylbenzene	mg/kg	25	0.0091 U	N/A	N/A	N/A	0.0061 U	N/A	0.0069 U	N/A	0.0073 U	N/A	0.0059 U	N/A	N/A	N/A
Isopropylbenzene	mg/kg	9,900	0.0091 U	N/A	N/A	N/A	0.0061 U	N/A	0.0069 U	N/A	0.0073 U	N/A	0.0059 U	N/A	N/A	N/A
Styrene	mg/kg	35,000	0.0091 U	N/A	N/A	N/A	0.0061 U	N/A	0.0069 U	N/A	0.0073 U	N/A	0.0059 U	N/A	N/A	N/A
Tetrachloroethene	mg/kg	100	0.0091 U	N/A	N/A	N/A	0.0061 U	N/A	0.0069 U	N/A	0.0073 U	N/A	0.0059 U	N/A	N/A	N/A
Toluene	mg/kg	47,000	0.0091 U	N/A	N/A	N/A	0.0061 U	N/A	0.0069 U	N/A	0.0073 U	N/A	0.0059 U	N/A	N/A	N/A
Xylenes	mg/kg	2,800	0.027 U	N/A	N/A	N/A	0.018 U	N/A	0.021 U	N/A	0.022 U	N/A	0.018 U	N/A	N/A	N/A
Semi-Volatile Organic Compounds^																
1,1-Biphenyl	mg/kg	200	0.093 U	0.071 U	**0.018 J**	0.069 UJ	0.077 U	**0.026 J**	0.082 U	0.075 U	0.077 U	0.072 U	**0.029 J**	0.072 U	0.071 U	0.071 U
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.093 U	0.071 U	0.078 U	0.069 UJ	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
2,4-Dichlorophenol	mg/kg	2,500	0.093 U	0.071 R	0.078 R	0.069 R	0.077 R	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
2,4-Dimethylphenol	mg/kg	16,000	0.093 U	0.071 U	0.078 R	0.069 R	0.077 R	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
2,4-Dinitrophenol	mg/kg	1,600	0.23 U	0.18 R	0.2 R	0.17 R	0.19 R	0.17 U	0.2 U	0.19 U	0.19 U	0.18 U	0.21 U	0.18 U	0.18 U	0.18 U
2,4-Dinitrotoluene	mg/kg	7.4	0.093 U	0.071 U	0.078 U	0.069 UJ	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
2,6-Dinitrotoluene	mg/kg	1.5	0.093 U	0.071 U	0.078 U	0.069 UJ	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
2-Chloronaphthalene	mg/kg	60,000	0.093 U	0.071 U	0.078 U	0.069 UJ	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
2-Chlorophenol	mg/kg	5,800	0.093 U	0.071 R	0.078 R	0.069 R	0.077 R	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
2-Methylnaphthalene	mg/kg	3,000	**0.15**	**0.018**	**0.033**	**0.0031 J**	0.0076 UJ	**0.1**	**0.011**	**0.07 J**	0.0078 U	**0.015**	**0.11**	**0.0071 J**	**0.028**	**0.02**
2-Methylphenol	mg/kg	41,000	0.093 U	0.071 R	0.078 R	0.069 R	0.077 R	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
2-Nitroaniline	mg/kg	8,000	0.23 U	0.18 U	0.2 U	0.17 UJ	0.19 U	0.17 U	0.2 U	0.19 U	0.19 U	0.18 U	0.21 U	0.18 U	0.18 U	0.18 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.18 U	0.14 R	0.16 R	0.14 R	0.15 R	0.14 U	0.16 U	0.15 U	0.15 U	0.14 U	**0.027 J**	0.14 U	0.14 U	0.14 U
3,3'-Dichlorobenzidine	mg/kg	5.1	**0.037 J**	0.071 U	0.078 U	0.069 UJ	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
4-Chloroaniline	mg/kg	11	0.093 U	0.071 U	0.078 U	0.069 U	0.077 UJ	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
Acenaphthene	mg/kg	45,000	**0.019**	**0.00099 J**	**0.0089**	0.0068 U	0.0076 UJ	**0.01**	**0.0023 J**	**0.17**	0.0078 U	**0.00061 J**	**0.015 J**	**0.0016 J**	**0.0036 J**	**0.013**
Acenaphthylene	mg/kg	45,000	**0.056**	0.0072 U	**0.01**	0.0068 U	0.0076 UJ	**0.019**	**0.0022 J**	**0.026 J**	**0.00088 J**	**0.0035 J**	**0.033 J**	**0.0015 J**	**0.0085**	**0.0054 J**
Acetophenone	mg/kg	120,000	0.093 U	0.071 U	0.078 U	0.069 U	0.077 U	**0.019 J**	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
Anthracene	mg/kg	230,000	**0.1**	**0.0076**	**0.14**	**0.0016 J**	0.0076 UJ	**0.034**	**0.0038 J**	**0.22**	**0.0013 J**	**0.0071**	**0.055 J**	**0.0033 J**	**0.023**	**0.035**
Benz[a]anthracene	mg/kg	21	**0.57**	**0.022**	**0.26**	**0.0049 J**	0.0076 UJ	**0.34**	**0.014**	**5.5**	0.0031 B	**0.025**	**0.19**	**0.013**	**0.064**	**0.099**
Benzaldehyde	mg/kg	120,000	0.093 U	0.071 U	**0.027 J**	0.069 U	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	**0.024 J**	0.072 U	0.071 U	**0.023 J**
Benzo[a]pyrene	mg/kg	2.1	**0.52**	**0.016**	**0.25**	**0.0028 J**	0.0076 UJ	**0.48**	**0.012**	**10.2**	**0.002 J**	**0.022**	**0.17**	**0.012**	**0.053**	**0.062**
Benzo[b]fluoranthene	mg/kg	21	**1.1**	**0.043**	**0.8**	**0.0086**	**0.002 J**	**1.7**	**0.024**	**12.1**	0.0043 B	**0.05**	**0.44**	**0.027**	**0.11**	**0.14**
Benzo[g,h,i]perylene	mg/kg		**0.17**	**0.016**	**0.26**	**0.0028 J**	0.0076 UJ	**0.46**	**0.0099**	**7**	**0.0011 J**	**0.017**	**0.14**	**0.0099**	**0.036**	**0.056**
Benzo[k]fluoranthene	mg/kg	210	**0.9**	**0.033 J**	**0.62**	**0.0067 J**	**0.0016 J**	**1.4**	**0.022**	**4.8**	**0.0039 J**	**0.041**	**0.35**	**0.022**	**0.092**	**0.11**
bis(2-chloroethoxy)methane	mg/kg	2,500	0.093 U	0.071 U	0.078 U	0.069 U	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
bis(2-Chloroethyl)ether	mg/kg	1	0.093 U	0.071 U	0.078 U	0.069 U	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.093 U	0.071 U	0.078 U	0.069 UJ	0.077 U	0.07 U	0.082 U	**0.036 J**	0.077 U	0.072 U	**0.24**	0.072 U	0.071 U	0.071 U
Caprolactam	mg/kg	400,000	0.23 U	0.18 U	0.2 U	0.17 U	0.19 U	0.17 U	0.2 U	0.19 U	0.19 U	0.18 U	0.21 U	**0.022 J**	0.18 U	**0.048 J**
Carbazole	mg/kg		0.093 U	0.071 U	**0.032 J**	0.069 UJ	0.077 U	**0.024 J**	0.082 U	**0.12**	0.077 U	0.072 U	**0.025 J**	0.072 U	0.071 U	0.071 U
Chrysene	mg/kg	2,100	**0.51**	**0.027**	**0.42**	**0.0059 J**	**0.00094 J**	**0.81**	**0.019**	**7.1**	**0.0028 J**	**0.028**	**0.26**	**0.016**	**0.067**	**0.12**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.087**	**0.0031 J**	**0.055**	0.0068 U	0.0076 UJ	**0.14**	**0.0018 J**	**1.9**	0.0078 U	**0.0052 J**	**0.047 J**	**0.0031 J**	**0.011**	**0.014**
Diethylphthalate	mg/kg	660,000	0.093 U	0.071 U	0.078 U	0.069 UJ	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
Di-n-butylphthalate	mg/kg	82,000	0.093 U	0.071 U	0.078 U	0.069 UJ	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
Di-n-ocytlphthalate	mg/kg	8,200	0.093 U	0.071 UJ	0.078 UJ	0.069 U	0.077 U	0.07 U	0.082 U	0.075 U	**0.027 J**	0.072 U	**0.059 J**	0.072 U	0.071 U	0.071 U
Fluoranthene	mg/kg	30,000	**0.8**	**0.063**	**0.56**	**0.011**	**0.0036 J**	**0.73**	**0.018**	**4.9**	**0.0044 J**	**0.06**	**0.38**	**0.028**	**0.16**	**0.23**
Fluorene	mg/kg	30,000	**0.037**	**0.00086 J**	**0.014**	0.0068 U	0.0076 UJ	**0.0039 J**	**0.0021 J**	**0.036 J**	0.0078 U	**0.00088 J**	**0.017 J**	**0.0014 J**	**0.0063 J**	**0.0028 J**
Hexachloroethane	mg/kg	8	0.093 U	0.071 U	0.078 U	0.069 U	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.18**	**0.013**	**0.22**	**0.002 J**	0.0076 UJ	**0.44**	**0.0072 J**	**5.9**	0.0078 U	**0.015**	**0.12**	**0.0084**	**0.033**	**0.04**
Isophorone	mg/kg	2,400	0.093 U	0.071 U	0.078 U	0.069 U	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
Naphthalene	mg/kg	8.6	**0.3**	**0.021 J**	**0.045**	0.0039 B	0.0076 UJ	**0.11**	**0.013**	**0.2**	**0.0021 J**	**0.02**	**0.12**	**0.0081**	**0.043**	**0.023**
N-Nitrosodiphenylamine	mg/kg	470	0.093 U	0.071 U	0.078 U	0.069 UJ	0.077 U	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
Pentachlorophenol	mg/kg	4	0.23 U	0.18 R	0.2 R	0.17 R	0.19 R	0.17 U	0.2 U	0.19 U	0.19 U	0.18 U	0.21 U	0.18 U	0.18 U	0.18 U
Phenanthrene	mg/kg		**0.47**	**0.069 J**	**0.34**	**0.0096**	**0.0026 J**	**0.35**	**0.022**	**0.63**	**0.0027 J**	**0.053**	**0.28**	**0.024**	**0.13**	**0.32**
Phenol	mg/kg	250,000	0.093 U	0.071 R	0.078 R	0.069 R	0.077 R	0.07 U	0.082 U	0.075 U	0.077 U	0.072 U	0.083 U	0.072 U	0.071 U	0.071 U
Pyrene	mg/kg	23,000	**0.69**	**0.045**	**0.45**	**0.0089**	**0.0025 J**	**0.46**	**0.017**	**5.9**	**0.0036 J**	**0.047**	**0.33**	**0.023**	**0.13**	**0.28**

Table 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-061-SB-4* 10/26/2016	B18-066-SB-1 10/24/2016	B18-066-SB-4 10/24/2016	B18-067-SB-1 10/24/2016	B18-067-SB-4 10/24/2016	B18-068-SB-1* 10/21/2016	B18-068-SB-9* 10/21/2016	B18-069-SB-1* 10/21/2016	B18-069-SB-8* 10/21/2016	B18-070-SB-1* 10/26/2016	B18-070-SB-5* 10/26/2016	B18-071-SB-1* 10/26/2016	B18-071-SB-5* 10/26/2016	B18-072-SB-1* 10/26/2016
PCBs																
Aroclor 1248	mg/kg	0.94	N/A	0.0549 U	N/A	0.0564 U	N/A	0.0559 U	N/A	0.0543 U	N/A	0.0539 U	N/A	0.0544 U	N/A	0.0525 U
Aroclor 1254	mg/kg	0.97	N/A	0.0549 U	N/A	0.0564 U	N/A	0.0559 U	N/A	0.0543 U	N/A	0.0539 U	N/A	0.0544 U	N/A	0.0525 U
Aroclor 1260	mg/kg	0.99	N/A	0.0549 U	N/A	0.0564 U	N/A	0.0559 U	N/A	0.0543 U	N/A	0.0539 U	N/A	0.0544 U	N/A	0.0525 U
Aroclor 1268	mg/kg		N/A	0.0549 U	N/A	0.0564 U	N/A	0.0559 U	N/A	0.0543 U	N/A	0.0539 U	N/A	0.0544 U	N/A	0.0525 U
PCBs (total)	mg/kg	0.97	N/A	0.0549 U	N/A	0.0564 U	N/A	0.0559 U	N/A	0.0543 U	N/A	0.0539 U	N/A	0.0544 U	N/A	0.0525 U
TPH/Oil & Grease																
Diesel Range Organics	mg/kg	6,200	**31**	**68.5 J**	**174 J**	**13.9 J**	**13.1 J**	**828**	**27.4**	**117**	**9.7**	**23.7**	**653**	**61.1**	**54.3**	**84.5**
Gasoline Range Organics	mg/kg	6,200	14.5 U	15 U	11 U	8.9 U	16.4 U	10.9 U	20.6 U	11.5 U	16.3 U	10.6 U	12.7 U	8 U	10.3 U	11 U
Oil & Grease	mg/kg	6,200	479 B	**265**	**1,710**	**829**	**268**	**1,870**	**467**	**521**	**219**	244 B	**2,100**	236 B	345 B	462 B

Detections in bold **Values in red indicate exceedances of the Project Action Limit (PAL)**
^PAH compounds were analyzed via SIM
*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.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
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 was a quantitative estimate.
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 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-072-SB-4* 10/26/2016	B18-073-SB-1 10/24/2016	B18-073-SB-5 10/24/2016	B18-074-SB-1 10/17/2016	B18-074-SB-9 10/17/2016	B18-075-SB-2* 10/27/2016	B18-075-SB-5.5* 12/1/2016	B18-075-SB-10* 12/1/2016	B18-076-SB-1 10/17/2016	B18-077-SB-1* 6/28/2017	B18-077-SB-4.5* 6/28/2017
Volatile Organic Compounds													
1,1,1-Trichloroethane	mg/kg	36,000	N/A	N/A	N/A	N/A	0.006 U	N/A	0.0057 U	0.0052 U	N/A	N/A	N/A
2-Butanone (MEK)	mg/kg	190,000	N/A	N/A	N/A	N/A	0.012 UJ	N/A	0.011 U	0.01 U	N/A	N/A	N/A
Acetone	mg/kg	670,000	N/A	N/A	N/A	N/A	**0.011 J**	N/A	0.011 U	0.01 U	N/A	N/A	N/A
Benzene	mg/kg	5.1	N/A	N/A	N/A	N/A	0.006 U	N/A	0.0057 U	0.0052 U	N/A	N/A	N/A
Bromodichloromethane	mg/kg	1.3	N/A	N/A	N/A	N/A	0.006 U	N/A	0.0057 U	0.0052 U	N/A	N/A	N/A
Chloroform	mg/kg	1.4	N/A	N/A	N/A	N/A	0.006 U	N/A	0.0057 U	0.0052 U	N/A	N/A	N/A
Cyclohexane	mg/kg	27,000	N/A	N/A	N/A	N/A	0.012 U	N/A	0.011 U	0.01 U	N/A	N/A	N/A
Ethylbenzene	mg/kg	25	N/A	N/A	N/A	N/A	0.006 U	N/A	0.0057 U	0.0052 U	N/A	N/A	N/A
Isopropylbenzene	mg/kg	9,900	N/A	N/A	N/A	N/A	0.006 U	N/A	0.0057 U	0.0052 U	N/A	N/A	N/A
Styrene	mg/kg	35,000	N/A	N/A	N/A	N/A	0.006 U	N/A	0.0057 U	0.0052 U	N/A	N/A	N/A
Tetrachloroethene	mg/kg	100	N/A	N/A	N/A	N/A	0.006 U	N/A	0.0057 U	0.0052 U	N/A	N/A	N/A
Toluene	mg/kg	47,000	N/A	N/A	N/A	N/A	0.006 U	N/A	0.0057 U	0.0052 U	N/A	N/A	N/A
Xylenes	mg/kg	2,800	N/A	N/A	N/A	N/A	0.018 U	N/A	0.017 U	0.015 U	N/A	N/A	N/A
Semi-Volatile Organic Compounds^													
1,1-Biphenyl	mg/kg	200	**0.038 J**	0.07 U	0.074 U	0.071 U	0.086 U	**0.24**	0.08 U	0.081 U	0.069 U	**0.17**	**0.077 J**
1,2,4,5-Tetrachlorobenzene	mg/kg	350	0.075 U	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	0.081 U	0.069 U	0.068 U	0.077 U
2,4-Dichlorophenol	mg/kg	2,500	0.075 U	0.07 R	0.074 R	0.071 R	0.086 U	0.071 U	0.08 U	0.081 U	0.069 R	0.068 U	0.077 U
2,4-Dimethylphenol	mg/kg	16,000	0.075 U	0.07 R	0.074 R	0.071 R	0.086 U	0.071 U	0.08 U	0.081 U	0.069 R	0.068 U	0.077 U
2,4-Dinitrophenol	mg/kg	1,600	0.19 U	0.18 R	0.18 R	0.18 R	0.22 UJ	0.18 U	0.2 U	0.2 U	0.17 R	0.17 U	0.19 U
2,4-Dinitrotoluene	mg/kg	7.4	0.075 U	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	0.081 U	0.069 U	0.068 U	0.077 U
2,6-Dinitrotoluene	mg/kg	1.5	0.075 U	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	0.081 U	0.069 U	0.068 U	0.077 U
2-Chloronaphthalene	mg/kg	60,000	0.075 U	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	0.081 U	0.069 U	0.068 U	0.077 U
2-Chlorophenol	mg/kg	5,800	0.075 U	0.07 R	0.074 R	0.071 R	0.086 U	0.071 U	0.08 U	0.081 U	0.069 R	0.068 U	0.077 U
2-Methylnaphthalene	mg/kg	3,000	**0.1**	**0.0038 J**	0.0073 U	**0.023**	**1.4**	**0.41**	**0.3**	**0.41**	**0.014**	**0.2**	**0.12**
2-Methylphenol	mg/kg	41,000	0.075 U	0.07 R	0.074 R	0.071 R	0.086 U	0.071 U	**0.018 J**	0.081 U	0.069 R	0.068 U	0.077 U
2-Nitroaniline	mg/kg	8,000	0.19 U	0.18 U	0.18 U	0.18 U	0.22 U	0.18 U	0.2 U	0.2 U	0.17 U	0.17 U	0.19 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.15 U	0.14 R	0.15 R	0.14 R	**0.024 J**	0.14 U	**0.055 J**	**0.048 J**	0.14 R	**0.02 J**	0.15 U
3,3'-Dichlorobenzidine	mg/kg	5.1	**0.15**	0.07 U	0.074 U	0.071 U	0.086 UJ	0.071 U	0.08 U	0.081 U	0.069 U	0.068 U	0.077 U
4-Chloroaniline	mg/kg	11	0.075 U	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	0.081 U	0.069 U	0.068 U	0.077 U
Acenaphthene	mg/kg	45,000	**0.12**	0.007 U	0.0073 U	**0.0018 J**	**0.42**	**0.022**	**0.019 J**	**0.91**	**0.0038 J**	**0.033 J**	**0.00092 J**
Acenaphthylene	mg/kg	45,000	**0.092**	0.007 U	0.0073 U	**0.014**	**3.7**	**0.51**	**1.8**	**9.9**	**0.05**	**0.89**	**0.011**
Acetophenone	mg/kg	120,000	0.075 U	0.07 U	0.074 U	0.071 U	**0.021 J**	**0.018 J**	**0.025 J**	**0.023 J**	0.069 U	**0.048 J**	0.077 U
Anthracene	mg/kg	230,000	**0.69**	**0.0049 J**	0.0073 U	**0.01**	**6.4**	**0.44**	**2.7**	**46.6**	**0.064**	**0.66**	**0.0088**
Benz[a]anthracene	mg/kg	21	**1.6**	**0.023**	0.0073 U	**0.022**	**14**	**3.3**	**9.3**	**101**	**0.18**	**5**	**0.028**
Benzaldehyde	mg/kg	120,000	**0.03 J**	0.07 U	0.074 U	0.071 U	0.086 U	**0.024 J**	**0.033 J**	**0.034 J**	0.069 U	0.068 U	0.077 U
Benzo[a]pyrene	mg/kg	2.1	**1.4**	**0.018**	0.0073 U	**0.015**	**11.3**	**2.3**	**7.1**	**78.9**	**0.18**	**3.7**	**0.03**
Benzo[b]fluoranthene	mg/kg	21	**2.4**	**0.03**	0.0073 U	**0.046**	**17.8**	**4.7**	**12.9**	**150**	**0.3**	**6.3**	**0.056**
Benzo[g,h,i]perylene	mg/kg		**0.76**	**0.015**	0.0073 U	**0.014**	**6**	**1**	**3.5**	**40.9**	**0.12**	**2.7**	**0.02**
Benzo[k]fluoranthene	mg/kg	210	**1.9**	**0.011**	0.0073 U	**0.044**	**16.1**	**1.8**	**12.3**	**143**	**0.29**	**2.1**	**0.017**
bis(2-chloroethoxy)methane	mg/kg	2,500	0.075 U	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	0.081 U	0.069 U	0.068 U	0.077 U
bis(2-Chloroethyl)ether	mg/kg	1	0.075 U	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	0.081 U	0.069 U	0.068 U	0.077 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	**0.058 J**	0.07 U	0.074 U	0.071 U	0.086 UJ	0.071 U	**0.055 J**	0.081 U	0.069 U	**0.065 J**	0.077 U
Caprolactam	mg/kg	400,000	0.19 U	0.18 U	0.18 U	0.18 U	0.22 U	0.18 U	0.2 U	0.2 U	0.17 U	**0.023 J**	0.19 U
Carbazole	mg/kg		**0.28**	0.07 U	0.074 U	0.071 U	**2.6**	**0.42**	**0.56**	0.081 U	**0.032 J**	**0.26**	0.077 U
Chrysene	mg/kg	2,100	**1.6**	**0.026**	0.0073 U	**0.036**	**12.4**	**3.5**	**8.3**	**93.4**	**0.18**	**4.9**	**0.031**
Dibenz[a,h]anthracene	mg/kg	2.1	**0.23**	**0.0038 J**	0.0073 U	**0.0038 J**	**2.3**	**0.32**	**1.3**	**12.4**	**0.029**	**0.76**	**0.0045 J**
Diethylphthalate	mg/kg	660,000	0.075 U	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	0.081 U	0.069 U	0.032 B	0.062 B
Di-n-butylphthalate	mg/kg	82,000	0.075 U	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	**0.072 J**	0.069 U	0.068 U	0.077 U
Di-n-ocytlphthalate	mg/kg	8,200	**0.09**	0.07 UJ	0.074 UJ	0.037 B	0.086 UJ	0.071 U	0.08 U	**0.12**	0.035 B	0.068 U	0.077 U
Fluoranthene	mg/kg	30,000	**4.4**	**0.059**	**0.00081 J**	**0.062**	**27.3**	**10.5**	**21.6**	**526**	**0.58**	**7.6**	**0.053**
Fluorene	mg/kg	30,000	**0.096**	0.007 U	0.0073 U	**0.0035 J**	**4**	**0.046**	**0.39**	**14**	**0.021**	**0.073**	**0.0026 J**
Hexachloroethane	mg/kg	8	0.075 U	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	0.081 U	0.069 U	0.068 U	0.077 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	**0.67**	**0.012**	0.0073 U	**0.01**	**6.4**	**1**	**3.7**	**43.2**	**0.1**	**2.4**	**0.019**
Isophorone	mg/kg	2,400	**0.056 J**	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	0.081 U	0.069 U	0.068 U	0.077 U
Naphthalene	mg/kg	8.6	**0.14**	0.0063 B	0.0073 U	**0.042**	**3.3**	**2.6**	**0.9**	**1.1**	**0.054**	**0.54**	**0.7**
N-Nitrosodiphenylamine	mg/kg	470	**0.03 J**	0.07 U	0.074 U	0.071 U	0.086 U	0.071 U	0.08 U	**0.13**	0.069 U	0.068 U	0.077 U
Pentachlorophenol	mg/kg	4	0.19 U	0.18 R	0.18 R	0.18 R	0.22 U	0.18 U	0.2 U	**0.053 J**	0.17 R	0.17 U	0.19 U
Phenanthrene	mg/kg		**3.6**	**0.032**	**0.001 J**	**0.072**	**22.2**	**13.2**	**8**	**118**	**0.51**	**1.3**	**0.075**
Phenol	mg/kg	250,000	0.075 U	0.07 R	0.074 R	0.071 R	0.086 U	0.071 U	**0.052 J**	**0.074 J**	0.069 R	0.068 U	0.077 U
Pyrene	mg/kg	23,000	**4.3**	**0.048**	0.0073 U	**0.048**	**19.3**	**7.7**	**15.9**	**364**	**0.45**	**7.5**	**0.04**

Table 6 - Parcel B18
Summary of Organics Detected in Soil

Parameter	Units	PAL	B18-072-SB-4* 10/26/2016	B18-073-SB-1 10/24/2016	B18-073-SB-5 10/24/2016	B18-074-SB-1 10/17/2016	B18-074-SB-9 10/17/2016	B18-075-SB-2* 10/27/2016	B18-075-SB-5.5* 12/1/2016	B18-075-SB-10* 12/1/2016	B18-076-SB-1 10/17/2016	B18-077-SB-1* 6/28/2017	B18-077-SB-4.5* 6/28/2017
PCBs													
Aroclor 1248	mg/kg	0.94	N/A	0.0546 U	N/A	0.0549 U	N/A	0.0547 U	N/A	N/A	0.0604 U	0.017 U	N/A
Aroclor 1254	mg/kg	0.97	N/A	0.0546 U	N/A	0.0549 U	N/A	0.0547 U	N/A	N/A	0.0604 U	0.017 U	N/A
Aroclor 1260	mg/kg	0.99	N/A	0.0546 U	N/A	0.0549 U	N/A	0.0547 U	N/A	N/A	0.0604 U	0.017 U	N/A
Aroclor 1268	mg/kg		N/A	0.0546 U	N/A	0.0549 U	N/A	0.0547 U	N/A	N/A	0.0604 U	0.017 U	N/A
PCBs (total)	mg/kg	0.97	N/A	0.0546 U	N/A	0.0549 U	N/A	0.0547 U	N/A	N/A	0.0604 U	0.12 U	N/A
TPH/Oil & Grease													
Diesel Range Organics	mg/kg	6,200	**270**	**31.7 J**	**9.3 J**	**10.8 J**	**175 J**	**200**	**178**	**472**	**25.4 J**	**126**	**14**
Gasoline Range Organics	mg/kg	6,200	11.3 U	10 U	10.7 U	15.1 U	13.4 U	11.7 U	12.9 U	10.1 U	9.6 U	**11.2 J**	**10 J**
Oil & Grease	mg/kg	6,200	**2,080**	**240**	**111 J**	**301**	**1,140**	**462**	**1,100**	**566**	**336**	**677**	**213**

Detections in bold **Values in red indicate exceedances of the Project Action Limit (PAL)**
^PAH compounds were analyzed via SIM
*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.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
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 was a quantitative estimate.
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 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-001-SB-1 10/17/2016	B18-001-SB-4 10/17/2016	B18-002-SB-1* 10/25/2016	B18-003-SB-1* 10/26/2016	B18-004-SB-1* 10/26/2016	B18-005-SB-1* 10/27/2016	B18-006-SB-1 10/17/2016	B18-007-SB-1* 10/27/2016
Metals										
Aluminum	mg/kg	1,100,000	**12,600**	**16,800**	**4,830**	**9,650**	**18,500**	**6,470**	**6,380**	**6,920**
Antimony	mg/kg	470	2.9 UJ	2.5 UJ	2.4 U	2.7 U	2.6 U	2.6 U	2.3 UJ	2.5 U
Arsenic	mg/kg	3	2.4 U	**3.3**	**7.9**	2.2 U	**6.1**	2.1 U	1.9 U	2.1 U
Barium	mg/kg	220,000	**105 J**	**132 J**	**152**	**39**	**168**	**59.3**	**31.3 J**	**23.2**
Beryllium	mg/kg	2,300	**0.52 J**	**1.1**	**0.68 J**	0.89 U	0.86 U	0.85 U	0.78 U	0.83 U
Cadmium	mg/kg	980	0.9 B	0.62 B	**0.36 J**	**0.35 J**	**0.98 J**	0.92 B	**1.4**	**5**
Chromium	mg/kg	120,000	**964**	**681**	**144**	**632**	**396**	**857**	**966**	**1,140**
Chromium VI	mg/kg	6.3	0.36 B	0.37 B	0.3 B	0.36 B	**42.5**	0.48 B	**1.2 J-**	**7.2**
Cobalt	mg/kg	350	1.3 B	3.1 B	**5.8**	4.4 U	**5.6**	**2.8 J**	**12.9**	4.2 U
Copper	mg/kg	47,000	**32.8**	**87**	**42.9**	**10.8**	**42.6**	**63.8**	**23.9**	**32**
Iron	mg/kg	820,000	**146,000**	**125,000**	**190,000**	**96,500**	**38,400**	**215,000**	**154,000**	**129,000**
Lead	mg/kg	800	**118**	**164**	**15.6**	**38.6**	**30.5**	**6.5**	**19.6**	**15.9**
Manganese	mg/kg	26,000	**26,200**	**18,400**	**2,900**	**15,900**	**5,330**	**25,500**	**22,100**	**31,300**
Mercury	mg/kg	350	**28.1**	**5.2**	**0.012 J**	**0.16**	0.1 U	**0.037 J**	**0.0072 J**	**0.0046 J**
Nickel	mg/kg	22,000	**20**	**83.4**	**56.3**	**8.7 J**	**29**	**57.6**	**265**	**12.5**
Selenium	mg/kg	5,800	3.9 UJ	3.3 UJ	3.1 U	3.5 U	3.5 U	3.4 U	3.1 UJ	3.3 U
Silver	mg/kg	5,800	**2.3 J**	**1.6 J**	**2.2 J**	2.7 U	2.6 U	**2.3 J**	**2.9**	**1.1 J**
Thallium	mg/kg	12	**9.1 J**	**4.4 J**	7.9 U	8.9 U	**3.7 J**	**5.5 J**	**4.8 J**	**9.4**
Vanadium	mg/kg	5,800	**643**	**351**	**74.3**	**277**	**145**	**454**	**377**	**522**
Zinc	mg/kg	350,000	**239**	**111**	**244**	**46.3**	**811**	**735**	**3,030**	**5,270**
Other										
Cyanide	mg/kg	150	**7.4 J-**	**9.2 J-**	**0.25 J**	**0.3 J**	**0.12 J**	**1.6**	**0.27 J-**	**0.97**

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

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.
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.
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.

Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-007-SB-4* 10/27/2016	B18-008-SB-1 10/19/2016	B18-009-SB-1 10/19/2016	B18-009-SB-4 10/19/2016	B18-010-SB-1 10/19/2016	B18-010-SB-6 10/19/2016	B18-011-SB-1* 10/25/2016	B18-011-SB-4* 10/25/2016
Metals										
Aluminum	mg/kg	1,100,000	**2,280**	**10,400**	**10,800**	**15,300**	**12,400**	**26,600**	**5,790**	**7,560**
Antimony	mg/kg	470	2.9 U	2.3 UJ	2.3 UJ	2.7 UJ	2.5 UJ	2.7 UJ	2.6 U	3 U
Arsenic	mg/kg	3	**4.1**	1.9 U	1.9 U	2.3 U	2.1 U	**2.7**	2.1 U	**14**
Barium	mg/kg	220,000	**43.1**	**69.1 J**	**76.3 J**	**343 J**	**40.9 J**	**167 J**	**27.9**	**150**
Beryllium	mg/kg	2,300	**0.52 J**	0.76 U	0.76 U	**1.2**	0.83 U	**1.8**	0.86 U	**0.74 J**
Cadmium	mg/kg	980	0.89 B	**24.8**	0.72 B	**2.7**	0.52 B	0.87 B	**0.44 J**	**1.5**
Chromium	mg/kg	120,000	**23.9**	**1,290**	**1,150**	**1,320**	**1,260**	**233**	**673**	**158**
Chromium VI	mg/kg	6.3	0.5 B	**93.2 J-**	**1.2 J-**	0.55 B	0.47 B	1.2 UJ	0.81 B	0.44 B
Cobalt	mg/kg	350	**3.2 J**	**1.9 J**	**0.61 J**	**19.2**	**1.4 J**	**4.6**	**0.54 J**	**12.5**
Copper	mg/kg	47,000	**15.3**	**66.1 J**	**63.7 J**	**194 J**	**18.3 J**	**27.8 J**	**22**	**264**
Iron	mg/kg	820,000	**9,560**	**145,000**	**189,000**	**224,000**	**259,000**	**29,000**	**113,000**	**90,500**
Lead	mg/kg	800	**116**	**170 J**	**20.7 J**	**280 J**	**22.8 J**	**87.4 J**	**26.2**	**961**
Manganese	mg/kg	26,000	**397**	**29,700**	**28,600**	**14,000**	**29,300**	**4,330**	**14,500**	**1,640**
Mercury	mg/kg	350	**0.69**	**0.015 J**	**0.03 J**	**1.5**	**0.28**	**0.22**	**0.01 J**	**0.36**
Nickel	mg/kg	22,000	**10.5**	**33.4**	**28.1**	**124**	**40.6**	**13.8**	**15.9**	**119**
Selenium	mg/kg	5,800	3.9 U	3.1 U	3 U	3.6 U	3.3 U	**2.8 J**	3.4 U	**3.6 J**
Silver	mg/kg	5,800	2.9 U	**3.6**	**1.4 J**	**1.9 J**	**2.6**	2.7 U	**0.7 J**	**0.99 J**
Thallium	mg/kg	12	9.7 U	**10.3**	**13.6**	**9.1**	**15.5**	9 U	**5.3 J**	10 U
Vanadium	mg/kg	5,800	**15.3**	**543**	**794**	**582**	**883**	**105**	**314**	**48**
Zinc	mg/kg	350,000	**1,080**	**90,500 J**	**240 J**	**1,640 J**	**111 J**	**141 J**	**365**	**640**
Other										
Cyanide	mg/kg	150	**0.37 J**	**0.93 J-**	**1.1 J-**	**4.8 J-**	**26.7 J-**	**27.7 J-**	**0.54 J**	**2.8**

Detections in bold
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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-012-SB-1* 10/25/2016	B18-013-SB-1 10/24/2016	B18-013-SB-4 10/24/2016	B18-014-SB-1 10/24/2016	B18-014-SB-5 10/24/2016	B18-015-SB-1* 10/21/2016	B18-016-SB-1* 10/21/2016	B18-017-SB-1 10/19/2016
Metals										
Aluminum	mg/kg	1,100,000	**4,580**	**15,100**	**6,380**	**9,680**	**12,600**	**12,500**	**20,900**	**19,500**
Antimony	mg/kg	470	2.5 U	2.6 UJ	2.3 UJ	2.7 UJ	2.7 UJ	2.5 U	2.9 U	2.7 UJ
Arsenic	mg/kg	3	2.1 U	2.1 U	**11.6**	2.2 U	**7.4**	2.1 U	**4.5**	2.2 U
Barium	mg/kg	220,000	**25.4**	**60.8 J**	**48.1 J**	**72.8 J**	**121 J**	**73.6**	**382**	**90.5 J**
Beryllium	mg/kg	2,300	**0.18 J**	0.86 U	0.76 U	0.9 U	**0.94**	0.84 U	**1.7**	**0.2 J**
Cadmium	mg/kg	980	1.3 U	**0.63 J**	**0.77 J**	**0.5 J**	**0.96 J**	**0.57 J**	**1.5**	**1.5**
Chromium	mg/kg	120,000	**12.4**	**1,120**	**1,130**	**1,360**	**172**	**1,090**	**177**	**947**
Chromium VI	mg/kg	6.3	0.74 B	**2.2 J-**	0.97 B	**2.9 J-**	0.27 B	0.68 B	0.33 B	0.34 B
Cobalt	mg/kg	350	**0.98 J**	4.3 U	**13.2**	**0.74 J**	**5.6**	4.2 U	**5.4**	**2.2 J**
Copper	mg/kg	47,000	**4.3**	**19.8 J**	**135 J**	**58.6 J**	**115 J**	**15.8**	**35**	**43 J**
Iron	mg/kg	820,000	**3,130**	**177,000**	**459,000**	**269,000**	**77,500**	**175,000**	**58,000**	**144,000**
Lead	mg/kg	800	**10.9**	**9.4 J**	1.9 U	**29.2 J**	**292 J**	**19.4**	**684**	**59.4 J**
Manganese	mg/kg	26,000	**207**	**21,800**	**19,700**	**27,800**	**2,640**	**25,700**	**6,030**	**24,300**
Mercury	mg/kg	350	0.11 U	**0.0071 J-**	0.1 UJ	0.1 UJ	**0.0098 J-**	**0.14**	0.11 U	**0.069 J**
Nickel	mg/kg	22,000	**4.2 J**	**16.4**	**94.7**	**21.9**	**30.5**	**13.5**	**15.3**	**15.9**
Selenium	mg/kg	5,800	3.4 U	3.4 U	3.1 U	3.6 U	3.5 U	3.4 U	3.8 U	3.6 U
Silver	mg/kg	5,800	2.5 U	**1.1 J**	**6.5**	**2.4 J**	**0.68 J**	2.5 U	2.9 U	**1.3 J**
Thallium	mg/kg	12	8.5 U	**7.7 J**	**5.7 J**	**10.6**	8.9 U	**13.5**	**4.3 J**	**10.9**
Vanadium	mg/kg	5,800	**10.3**	**568**	**446**	**783**	**162**	**655**	**168**	**578**
Zinc	mg/kg	350,000	**34.7**	**273 J**	**45.1 J**	**92.4 J**	**533 J**	**247**	**601**	**353 J**
Other										
Cyanide	mg/kg	150	**0.18 J**	**0.086 J**	0.67 U	0.65 U	**0.17 J**	**7.3**	**2.6**	**0.49 J-**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-017-SB-7.5 10/19/2016	B18-018-SB-1 10/19/2016	B18-018-SB-7 10/19/2016	B18-019-SB-8* 10/27/2016	B18-019-SB-11* 10/27/2016	B18-020-SB-11* 10/27/2016	B18-020-SB-14* 10/27/2016	B18-021-SB-1* 10/25/2016
Metals										
Aluminum	mg/kg	1,100,000	**47,900**	**40,200**	**48,900**	**12,900**	**15,500**	**25,800**	**9,430**	**10,300**
Antimony	mg/kg	470	2.7 UJ	2.5 UJ	3 UJ	2.7 U	2.7 U	2.9 U	3 U	2.7 U
Arsenic	mg/kg	3	**2.3**	2.1 U	**3.9**	**16.8**	**4**	2.4 U	**11.7**	2.2 U
Barium	mg/kg	220,000	**986 J**	**324 J**	**815 J**	**411**	**158**	**273**	**117**	**66.3**
Beryllium	mg/kg	2,300	**6.7**	**7.4**	**7.9**	**0.65 J**	**0.86 J**	**3.6**	**0.42 J**	0.89 U
Cadmium	mg/kg	980	0.18 B	0.39 B	0.44 B	1.8 B	0.99 B	0.65 B	1.5 B	**0.79 J**
Chromium	mg/kg	120,000	**4.1**	**12**	**9.6**	**299**	**259**	**72.6**	**988**	**1,240**
Chromium VI	mg/kg	6.3	0.33 B	0.29 B	0.32 B	0.78 B	0.41 B	0.32 B	0.89 B	**4**
Cobalt	mg/kg	350	**0.46 J**	**0.32 J**	**0.5 J**	**30.9**	**6.2**	**2.9 J**	**12.2**	4.5 U
Copper	mg/kg	47,000	**36.6 J**	**2.3 J**	**30.9 J**	**254**	**117**	**27.1**	**106**	**27.9**
Iron	mg/kg	820,000	**9,820**	**16,900**	**4,370**	**134,000**	**66,200**	**25,100**	**139,000**	**209,000**
Lead	mg/kg	800	**6.6 J**	**6.2 J**	**12.2 J**	**299**	**118**	**97.5**	**255**	**18.1**
Manganese	mg/kg	26,000	**6,980**	**2,020**	**2,810**	**4,560**	**7,840**	**2,750**	**20,200**	**29,500**
Mercury	mg/kg	350	0.12 U	0.11 U	0.13 U	**0.062 J**	**0.0075 J**	0.11 U	**0.0047 J**	**0.073 J**
Nickel	mg/kg	22,000	9.1 U	**1.9 J**	**1.2 J**	**156**	**26.1**	**9.3 J**	**36.3**	**24.4**
Selenium	mg/kg	5,800	**4.7**	**1.9 J**	**3.5 J**	3.6 U	3.6 U	3.9 U	4 U	3.6 U
Silver	mg/kg	5,800	2.7 U	2.5 U	3 U	**2.3 J**	2.7 U	2.9 U	**1.5 J**	**1.5 J**
Thallium	mg/kg	12	9.1 U	8.5 U	10.1 U	**10.2**	9.1 U	9.7 U	**7.8 J**	**11.3**
Vanadium	mg/kg	5,800	**18.5**	**47.5**	**8.5**	**858**	**219**	**73.2**	**545**	**696**
Zinc	mg/kg	350,000	**11 J**	**100 J**	**24 J**	**510**	**417**	**123**	**480**	**260**
Other										
Cyanide	mg/kg	150	**1.2 J-**	**0.4 J-**	**2.2 J-**	**6.3**	**2.5**	**6.9**	**4.5**	**1.2**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-021-SB-4* 10/25/2016	B18-022-SB-1 10/24/2016	B18-023-SB-1 10/24/2016	B18-023-SB-6 10/24/2016	B18-024-SB-1 10/24/2016	B18-024-SB-4 10/24/2016	B18-025-SB-1 10/19/2016	B18-025-SB-5 10/19/2016
Metals										
Aluminum	mg/kg	1,100,000	**12,000**	**11,100**	**12,800**	**12,400**	**10,400**	**13,400**	**5,140**	**43,700**
Antimony	mg/kg	470	2.7 U	2.7 UJ	2.4 UJ	2.5 UJ	2.8 UJ	2.3 UJ	2.6 UJ	3.8 UJ
Arsenic	mg/kg	3	**2 J**	2.2 U	2 U	**10**	2.3 U	**4.5**	2.2 U	**15.1**
Barium	mg/kg	220,000	**420**	**60.6 J**	**66.9 J**	**146 J**	**61.4 J**	**119 J**	**215 J**	**555 J**
Beryllium	mg/kg	2,300	**1.1**	0.89 U	0.81 U	**0.43 J**	0.92 U	**0.98**	0.88 U	**3.1**
Cadmium	mg/kg	980	**0.55 J**	**0.97 J**	**0.45 J**	**0.77 J**	**0.32 J**	**0.98 J**	1.3 B	**0.39 J**
Chromium	mg/kg	120,000	**337**	**1,170**	**1,110**	**451**	**1,290**	**52.1**	**485**	**4**
Chromium VI	mg/kg	6.3	0.4 B	**3.8 J-**	**1.1 J-**	1.2 UJ	**7.3 J-**	0.31 B	**1 J-**	0.44 B
Cobalt	mg/kg	350	**4.8**	4.5 U	4.1 U	**16.6**	4.6 U	**7**	**5.1**	**0.74 J**
Copper	mg/kg	47,000	**32.6**	**23 J**	**37.9 J**	**157 J**	**28.8 J**	**186 J**	**71.9 J**	**39.3 J**
Iron	mg/kg	820,000	**101,000**	**187,000**	**184,000**	**138,000**	**177,000**	**64,400**	**284,000**	**10,200**
Lead	mg/kg	800	**36.6**	**18.6 J**	2 U	**450 J**	**2.8 J**	**289 J**	**29.8 J**	**16.6 J**
Manganese	mg/kg	26,000	**13,600**	**31,900**	**24,800**	**9,760**	**36,600**	**1,190**	**15,300**	**2,770**
Mercury	mg/kg	350	**1.1**	**0.0035 J-**	0.1 UJ	0.11 UJ	**0.0036 J-**	0.11 UJ	**0.018 J**	0.15 U
Nickel	mg/kg	22,000	**43.5**	**15.7**	**14.1**	**50.6**	**16.9**	**30.5**	**48.3**	12.6 U
Selenium	mg/kg	5,800	3.6 U	3.6 U	3.2 U	3.4 U	3.7 U	3 U	3.5 U	**3.3 J**
Silver	mg/kg	5,800	2.7 U	**1.5 J**	**1.1 J**	**1.8 J**	**1.6 J**	2.3 U	**2.8**	3.8 U
Thallium	mg/kg	12	**4 J**	**8.7 J**	**9.2**	**5.4 J**	**11.9**	7.6 U	**12.8**	10.1 U
Vanadium	mg/kg	5,800	**194**	**668**	**637**	**276**	**791**	**64.5**	**902**	**9.5**
Zinc	mg/kg	350,000	**179**	**548 J**	**57.8 J**	**765 J**	**83.1 J**	**559 J**	**950 J**	**115 J**
Other										
Cyanide	mg/kg	150	**1.8**	**0.33 J**	**0.079 J**	**0.081 J**	**0.3 J**	**0.39 J**	**0.38 J-**	**2.6 J-**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-026-SB-1 10/19/2016	B18-026-SB-4 10/19/2016	B18-027-SB-1 10/17/2016	B18-027-SB-7 10/17/2016	B18-028-SB-1.5 10/18/2016	B18-028-SB-7 10/18/2016	B18-029-SB-2 10/18/2016	B18-029-SB-4 10/18/2016
Metals										
Aluminum	mg/kg	1,100,000	**5,500**	**46,800**	**10,500**	**8,340**	**8,350**	**45,500**	**10,600**	**2,940**
Antimony	mg/kg	470	2.6 UJ	3 UJ	**1.4 J**	**4.6 J**	**4.9 J**	3 UJ	2.9 UJ	3.4 UJ
Arsenic	mg/kg	3	**20.8**	**25.4**	**8.8**	**14.8**	**32 J**	2.5 U	**12.9 J**	**29.2 J**
Barium	mg/kg	220,000	**139 J**	**431 J**	**130 J**	**76 J**	**268**	**1,550**	**175**	**81.7**
Beryllium	mg/kg	2,300	**0.51 J**	**4.4**	**0.69 J**	**1.1**	0.74 B	**7.1**	**1.1**	**1.7**
Cadmium	mg/kg	980	0.93 B	0.43 B	0.41 B	1 B	**1.9**	0.36 B	0.91 B	1.3 B
Chromium	mg/kg	120,000	**62.2**	**3.5**	**13.8**	**4.8**	**23.7 J**	2.5 U	**13.1 J**	**36.5 J**
Chromium VI	mg/kg	6.3	0.69 B	0.3 B	0.32 B	0.43 B	0.32 B	0.35 B	0.36 B	0.38 B
Cobalt	mg/kg	350	**7.7**	**1.4 J**	**12.8**	**40.9**	**45.9**	**0.29 J**	**6.9**	**13.2**
Copper	mg/kg	47,000	**125 J**	**46 J**	**328**	**950**	**1,280**	**9.9**	**59**	**148**
Iron	mg/kg	820,000	**41,200**	**13,100**	**141,000**	**350,000**	**359,000**	**1,740**	**23,200**	**168,000**
Lead	mg/kg	800	**143 J**	**6.3 J**	**46.1**	**68.8**	**702**	2.5 U	**79.4**	**241**
Manganese	mg/kg	26,000	**1,320**	**2,420**	**45,000**	**3,060**	**2,650**	**22,200**	**2,270**	**1,170**
Mercury	mg/kg	350	**0.071 J**	0.13 U	**0.0098 J**	0.11 U	**0.0058 J+**	0.12 U	**0.28 J+**	**0.97 J+**
Nickel	mg/kg	22,000	**27.7**	**1.6 J**	**9.2**	**13.7**	**13.7 J**	9.9 U	**11.9 J**	**46 J**
Selenium	mg/kg	5,800	3.5 U	4 U	3.5 UJ	3.6 UJ	3.8 U	4 U	3.9 U	4.5 U
Silver	mg/kg	5,800	**1 J**	3 U	**4.9**	**7.6**	**8.5**	3 U	2.9 U	**2.5 J**
Thallium	mg/kg	12	8.8 U	10 U	**5 J**	9.1 U	9.4 U	9.9 U	9.6 U	11.2 U
Vanadium	mg/kg	5,800	**103**	**12.2**	**37.9**	**49.7**	**70.9 J**	**14.3 J**	**34.1 J**	**11.6 J**
Zinc	mg/kg	350,000	**679 J**	4.4 B	**227**	**572**	**719**	3.3 B	**173**	**284**
Other										
Cyanide	mg/kg	150	**0.49 J-**	**5.4 J-**	**0.32 J-**	**0.17 J-**	**0.89 J-**	**0.89 J-**	**4.4 J-**	**11.1 J-**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-030-SB-1.5 10/18/2016	B18-030-SB-6 10/18/2016	B18-031-SB-1 10/18/2016	B18-031-SB-6 10/18/2016	B18-032-SB-1.5 10/18/2016	B18-032-SB-6 10/18/2016	B18-033-SB-1* 10/21/2016	B18-034-SB-1* 10/21/2016
Metals										
Aluminum	mg/kg	1,100,000	**11,600**	**37,300**	**11,200**	**45,500**	**17,700**	**28,500**	**13,900**	**9,110**
Antimony	mg/kg	470	**3.8 J**	2.9 UJ	2.7 UJ	3.3 UJ	2.7 UJ	2.8 UJ	2.3 U	2.5 U
Arsenic	mg/kg	3	**50.3 J**	**5.8 J**	**5.2 J**	**8.7 J**	**19 J**	**19.1 J**	2 U	2.1 U
Barium	mg/kg	220,000	**399**	**1,370**	**74**	**1,310**	**216**	**223**	**106**	**50.8**
Beryllium	mg/kg	2,300	**0.86 J**	**3.1**	**0.54 J**	**5.4**	**1.7**	**1.8**	**0.53 J**	0.84 U
Cadmium	mg/kg	980	**1.4**	0.4 B	0.97 B	0.49 B	**1.6**	**3.6**	**0.66 J**	**0.62 J**
Chromium	mg/kg	120,000	**32.6 J**	**0.81 J**	**1,020 J**	**18.9 J**	**42.6 J**	**129 J**	**1,200**	**1,370**
Chromium VI	mg/kg	6.3	0.32 B	0.36 B	0.72 B	0.36 B	0.27 B	0.27 B	0.38 B	**2.9**
Cobalt	mg/kg	350	**22.4**	**4.6 J**	4.4 U	**2 J**	**17.4**	**11**	3.9 U	4.2 U
Copper	mg/kg	47,000	**659**	**69.7**	**33.4**	**69.9**	**270**	**170**	**16.7**	**19.7**
Iron	mg/kg	820,000	**227,000**	**24,700**	**186,000**	**18,000**	**95,800**	**66,200**	**188,000**	**173,000**
Lead	mg/kg	800	**683**	**24.3**	**33.7**	**23.8**	**314**	**411**	**7.9**	**19.3**
Manganese	mg/kg	26,000	**5,910**	**19,600**	**23,300**	**6,360**	**4,230**	**4,840**	**22,600**	**32,100**
Mercury	mg/kg	350	**0.41 J+**	0.13 U	**0.32 J+**	0.13 U	**0.06 J+**	0.11 U	**0.01 J**	**0.054 J**
Nickel	mg/kg	22,000	**16.1 J**	**2.5 J**	**19.1 J**	**5.6 J**	**47.2 J**	**34.9 J**	**14.7**	**15.1**
Selenium	mg/kg	5,800	3.6 U	**3.4 J**	3.5 U	4.4 U	3.6 U	3.8 U	3.1 U	3.3 U
Silver	mg/kg	5,800	**3.5**	2.9 U	**1.8 J**	3.3 U	**1.1 J**	2.8 U	**0.77 J**	2.5 U
Thallium	mg/kg	12	9 U	9.7 U	8.9 U	11.1 U	9 U	9.4 U	**13.1**	**17.7**
Vanadium	mg/kg	5,800	**190 J**	**11.4 J**	**676 J**	**32.9 J**	**59.6 J**	**79.9 J**	**579**	**773**
Zinc	mg/kg	350,000	**478**	**9.1**	**341**	**96.8**	**775**	**2,270**	**487**	**164**
Other										
Cyanide	mg/kg	150	**1.7 J-**	**12 J-**	**7.4 J-**	**19.1 J-**	**1.1 J-**	**1.8 J-**	**0.46 J**	**1.2**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-034-SB-5* 10/21/2016	B18-035-SB-1* 10/25/2016	B18-035-SB-4* 10/25/2016	B18-036-SB-1* 10/25/2016	B18-036-SB-5* 10/25/2016	B18-037-SB-1 10/20/2016	B18-037-SB-5 10/20/2016	B18-038-SB-1 10/20/2016
Metals										
Aluminum	mg/kg	1,100,000	**15,300**	**12,900**	**13,200**	**9,190**	**6,840**	**33,100**	**4,800**	**30,800**
Antimony	mg/kg	470	2.5 U	2.7 U	3 U	2.3 U	2.6 U	2.8 UJ	2.8 UJ	2.9 UJ
Arsenic	mg/kg	3	**10.4**	**3.6**	**5.8**	**16**	2.1 U	**4**	2.3 U	2.4 U
Barium	mg/kg	220,000	**173**	**52.5**	**120**	**184**	**49.5**	**480 J**	**82 J**	**266 J**
Beryllium	mg/kg	2,300	**0.86**	0.91 U	**0.43 J**	**0.94**	**0.16 J**	**5.4**	**0.5 J**	**4.7**
Cadmium	mg/kg	980	**2.5**	**9.1**	**2**	**4.4**	1.3 U	**0.9 J**	**0.35 J**	**0.95 J**
Chromium	mg/kg	120,000	**401**	**679**	**477**	**245**	**30.1**	**109**	**30.9**	**207**
Chromium VI	mg/kg	6.3	0.32 B	0.63 B	0.4 B	0.36 B	0.35 B	0.38 B	0.31 B	0.47 B
Cobalt	mg/kg	350	**15.4**	**2.3 J**	**5.5**	**21.7**	**2.9 J**	**10**	**2.4 J**	**2.7 J**
Copper	mg/kg	47,000	**303**	**63.6**	**80.4**	**193**	**5.9**	**34.8 J**	**11.5 J**	**32.1 J**
Iron	mg/kg	820,000	**114,000**	**238,000**	**101,000**	**236,000**	**14,800**	**39,400**	**12,100**	**38,900**
Lead	mg/kg	800	**511**	**352**	**423**	**391**	**40.6**	**68.6 J**	**28.2 J**	**80.5 J**
Manganese	mg/kg	26,000	**16,000**	**15,200**	**10,900**	**6,070**	**740**	**6,190**	**1,080**	**6,390**
Mercury	mg/kg	350	**1.5**	**0.019 J**	**0.68**	**0.35**	**0.043 J**	0.1 U	**0.3 J+**	0.11 U
Nickel	mg/kg	22,000	**87.7**	**41.3**	**30.3**	**74.9**	**2.4 J**	**12.4**	**5.9 J**	**7.6 J**
Selenium	mg/kg	5,800	3.3 U	3.6 U	4 U	3 U	3.4 U	3.7 U	3.7 U	3.8 U
Silver	mg/kg	5,800	**1 J**	**4.6**	3 U	**3.1**	2.6 U	2.8 U	2.8 U	2.9 U
Thallium	mg/kg	12	**9.9**	**5.2 J**	10.1 U	**7.1 J**	8.5 U	9.2 U	9.4 U	9.6 U
Vanadium	mg/kg	5,800	**479**	**347**	**305**	**517**	**22.9**	**97.3**	**31.3**	**125**
Zinc	mg/kg	350,000	**2,170**	**12,000**	**752**	**1,880**	**98.7**	**259 J**	**60.4 J**	**544 J**
Other										
Cyanide	mg/kg	150	**6.4**	**0.46 J**	**4.1**	**5.1**	**1.3**	**4.2 J-**	**0.8 J-**	**3.3 J-**

Detections in bold
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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-039-SB-1 10/17/2016	B18-039-SB-4 10/17/2016	B18-040-SB-1 10/17/2016	B18-040-SB-8 10/17/2016	B18-041-SB-1 10/20/2016	B18-041-SB-7.5 10/20/2016	B18-042-SB-1* 10/21/2016	B18-042-SB-5* 10/21/2016
Metals										
Aluminum	mg/kg	1,100,000	**9,710**	**7,470**	**22,200**	**41,900**	**18,400**	**13,100**	**17,300**	**2,890**
Antimony	mg/kg	470	**8.9 J**	**3.5 J**	2.5 UJ	2.9 UJ	2.3 UJ	2.9 UJ	**1.9 J**	2.7 U
Arsenic	mg/kg	3	**16.5**	**24.8**	**9**	**13.9**	**10.1**	**5.5**	**30.9**	**20.8**
Barium	mg/kg	220,000	**248 J**	**830 J**	**356 J**	**910 J**	**230 J**	**72.9 J**	**396**	**42.3**
Beryllium	mg/kg	2,300	**0.75 J**	**1**	**2.9**	**4.4**	**1.9**	**0.69 J**	**1.9**	**0.23 J**
Cadmium	mg/kg	980	0.59 B	1 B	**4.5**	0.27 B	**3**	**0.61 J**	**14.6**	1.4 U
Chromium	mg/kg	120,000	**11.7**	**1.9 J**	**140**	**3.5**	**377**	**50.2**	**239**	**224**
Chromium VI	mg/kg	6.3	0.32 B	0.28 B	0.51 B	0.35 B	0.51 B	0.43 B	1.1 B	0.42 B
Cobalt	mg/kg	350	**34.8**	**19.4**	**14.4**	**5.5**	**12.6**	**8.2**	**24.3**	**23.4**
Copper	mg/kg	47,000	**822**	**545**	**179**	**103**	**138 J**	**24.6 J**	**186**	**116**
Iron	mg/kg	820,000	**365,000**	**363,000**	**70,400**	**91,800**	**134,000**	**24,100**	**196,000**	**41,900**
Lead	mg/kg	800	**140**	**154**	**560**	**17.5**	**343 J**	**140 J**	**2,320**	**113**
Manganese	mg/kg	26,000	**6,040**	**6,630**	**9,910**	**4,860**	**8,720**	**401**	**7,890**	**266**
Mercury	mg/kg	350	**0.46**	**0.0023 J**	**41.5**	0.12 U	**0.83 J+**	**0.069 J+**	**1.2**	**0.078 J**
Nickel	mg/kg	22,000	**21.9**	**18.9**	**61.3**	**3.3 J**	**46**	**44.9**	**74.6**	**203**
Selenium	mg/kg	5,800	3.9 UJ	4 UJ	3.4 UJ	**2.3 J-**	3.1 U	3.9 U	**3.3 J**	3.6 U
Silver	mg/kg	5,800	**6.5**	**7.4**	2.5 U	2.9 U	2.3 U	2.9 U	**7.7**	2.7 U
Thallium	mg/kg	12	9.6 U	9.9 U	8.5 U	9.8 U	**10**	9.7 U	**15.3**	9.1 U
Vanadium	mg/kg	5,800	**67.7**	**31.9**	**70.2**	**12.6**	**623**	**58.3**	**1,010**	**15.4**
Zinc	mg/kg	350,000	**321**	**500**	**1,120**	**38.6**	**1,400 J**	**208 J**	**5,740**	**74.1**
Other										
Cyanide	mg/kg	150	**0.42 J-**	**0.21 J-**	**0.78 J-**	**2 J-**	**3.8 J-**	**1.1 J-**	**7**	**0.9**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-043-SB-1* 10/21/2016	B18-043-SB-5* 10/21/2016	B18-046-SB-1* 10/26/2016	B18-046-SB-8* 10/26/2016	B18-047-SB-1 10/18/2016	B18-047-SB-4 10/18/2016	B18-048-SB-2 10/18/2016	B18-048-SB-4 10/18/2016
Metals										
Aluminum	mg/kg	1,100,000	**21,400**	**9,600**	**10,500**	**35,800**	**29,300**	**31,100**	**20,500**	**49,400**
Antimony	mg/kg	470	2.4 U	**11.3**	2.8 U	2.5 U	2.6 UJ	3.5 UJ	2.6 UJ	3.3 UJ
Arsenic	mg/kg	3	**12.5**	**46.4**	2.3 U	2.1 U	**5.9 J**	**45.7 J**	**25.6 J**	**20.8 J**
Barium	mg/kg	220,000	**316**	**327**	**36.2**	**151**	**404**	**639**	**380**	**822**
Beryllium	mg/kg	2,300	**3.1**	**0.76 J**	0.94 U	**2**	**2.4**	**2.5**	**1.9**	**4.1**
Cadmium	mg/kg	980	**4.4**	**17.6**	**0.39 J**	**0.14 J**	**4.2**	0.85 B	**2.9**	**2.6**
Chromium	mg/kg	120,000	**89.5**	**198**	**1,260**	**2.4**	**374 J**	**28.9 J**	**139 J**	**2.6 J**
Chromium VI	mg/kg	6.3	0.41 B	0.35 B	**2.9**	0.3 B	0.35 B	0.36 B	0.52 B	0.37 B
Cobalt	mg/kg	350	**14.1**	**44.5**	4.7 U	4.2 U	**3.8 J**	**3 J**	**18.6**	**13.2**
Copper	mg/kg	47,000	**221**	**398**	**11.1**	**14.7**	**162**	**85.1**	**220**	**473**
Iron	mg/kg	820,000	**79,700**	**259,000**	**183,000**	**1,880**	**78,500**	**49,400**	**83,000**	**17,800**
Lead	mg/kg	800	**1,340**	**9,580**	2.3 U	2.1 U	**449**	**218**	**820**	**125**
Manganese	mg/kg	26,000	**4,840**	**5,070**	**30,400**	**1,310**	**12,100**	**3,190**	**3,710**	**3,740**
Mercury	mg/kg	350	**0.017 J**	**0.83**	**0.0032 J**	0.1 U	**0.12 J+**	**1.6 J+**	**3.4 J+**	0.13 U
Nickel	mg/kg	22,000	**55.6**	**156**	**11.7**	8.4 U	**15.6 J**	**4.7 J**	**54.9 J**	**2 J**
Selenium	mg/kg	5,800	**3.4**	**5**	3.8 U	**4**	3.4 U	**2.9 J**	3.5 U	**4.5**
Silver	mg/kg	5,800	**0.68 J**	**8.8**	2.8 U	2.5 U	2.6 U	3.5 U	**0.87 J**	3.3 U
Thallium	mg/kg	12	**5.1 J**	**12.5**	**12**	8.4 U	8.5 U	11.6 U	8.7 U	11.1 U
Vanadium	mg/kg	5,800	**143**	**590**	**916**	**12.2**	**291 J**	**41 J**	**173 J**	**10.6 J**
Zinc	mg/kg	350,000	**2,800**	**9,280**	**40.1**	3.9 B	**1,250**	**163**	**964**	**1,110**
Other										
Cyanide	mg/kg	150	**2.6**	**5.9**	**0.14 J**	**13.1**	**1 J-**	**29.7 J-**	**4.1 J-**	**1.6 J-**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-049-SB-1 10/20/2016	B18-049-SB-4 10/20/2016	B18-050-SB-1 10/20/2016	B18-050-SB-5 10/20/2016	B18-051-SB-1 10/24/2016	B18-052-SB-1 10/24/2016	B18-053-SB-1* 10/25/2016	B18-053-SB-5* 10/25/2016
Metals										
Aluminum	mg/kg	1,100,000	**16,100**	**26,500**	**12,200**	**3,280**	**18,800**	**30,500**	**38,200**	**30,000**
Antimony	mg/kg	470	2.4 UJ	2.7 UJ	2.9 UJ	2.6 UJ	2.9 UJ	2.6 UJ	2.8 U	2.6 U
Arsenic	mg/kg	3	2 U	**8.9**	2.4 U	**2.7**	2.5 U	2.2 U	2.3 U	2.2 U
Barium	mg/kg	220,000	**124 J**	**360 J**	**87.1 J**	**54.6 J**	**39.2 J**	**91.7 J**	**72.7**	**71.5**
Beryllium	mg/kg	2,300	**2**	**3.5**	**0.33 J**	**0.2 J**	0.98 U	**0.24 J**	0.93 U	0.88 U
Cadmium	mg/kg	980	**0.74 J**	**1.3 J**	**0.82 J**	**0.65 J**	**0.28 J**	**0.64 J**	**2**	**0.5 J**
Chromium	mg/kg	120,000	**428**	**72**	**1,280**	**21.6**	**937**	**995**	**1,070**	**1,140**
Chromium VI	mg/kg	6.3	0.65 B	0.37 B	0.73 B	0.51 B	**5.4 J-**	0.3 B	1.2 B	0.82 B
Cobalt	mg/kg	350	**1.8 J**	**9.6**	**1.8 J**	**3.3 J**	**0.43 J**	4.4 U	4.6 U	**1.2 J**
Copper	mg/kg	47,000	**22 J**	**70.3 J**	**144 J**	**104 J**	**23.3 J**	**21.7 J**	**24.7**	**22.4**
Iron	mg/kg	820,000	**62,000**	**25,000**	**189,000**	**8,620**	**200,000**	**154,000**	**180,000**	**207,000**
Lead	mg/kg	800	**112 J**	**134 J**	**64.1 J**	**325 J**	**11.9 J**	**24 J**	**53.5**	**5.2**
Manganese	mg/kg	26,000	**9,970**	**30,200**	**26,400**	**332**	**25,800**	**28,700**	**27,300**	**30,400**
Mercury	mg/kg	350	**0.0081 J+**	**0.11 J+**	**0.043 J+**	**0.029 J+**	**0.0027 J-**	**0.17 J-**	**0.011 J**	0.11 U
Nickel	mg/kg	22,000	**8.4**	**44.7**	**20.3**	**5.9 J**	**24.2**	**15.7**	**18.9**	**27**
Selenium	mg/kg	5,800	**2.7 J**	**4.6**	3.8 U	3.5 U	3.9 U	3.5 U	3.7 U	3.5 U
Silver	mg/kg	5,800	2.4 U	2.7 U	2.9 U	2.6 U	**1.5 J**	**0.98 J**	**1.3 J**	**1.5 J**
Thallium	mg/kg	12	**6.5 J**	**13.3**	**15.6**	8.8 U	**9.9**	**6.8 J**	**7.4 J**	**8.8**
Vanadium	mg/kg	5,800	**265**	**58.7**	**798**	**11.6**	**766**	**518**	**619**	**614**
Zinc	mg/kg	350,000	**514 J**	**249 J**	**450 J**	**179 J**	**119 J**	**288 J**	**2,220**	**270**
Other										
Cyanide	mg/kg	150	**0.72 J-**	**0.7 J-**	**2.2 J-**	**0.96 J-**	**0.36 J**	**2.6**	**0.28 J**	0.68 U

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-054-SB-1* 10/25/2016	B18-054-SB-5* 10/25/2016	B18-055-SB-1* 10/25/2016	B18-055-SB-5* 10/25/2016	B18-055-SB-10* 10/25/2016	B18-056-SB-1* 10/25/2016	B18-057-SB-1 10/19/2016	B18-057-SB-4 10/19/2016
Metals										
Aluminum	mg/kg	1,100,000	**10,200**	**12,400**	**37,600**	**16,800**	N/A	**20,100**	**29,300**	**41,200**
Antimony	mg/kg	470	2.7 U	2.5 U	2.4 U	2.7 U	N/A	2.3 U	2.5 UJ	3.3 UJ
Arsenic	mg/kg	3	2.3 U	2.1 U	2 U	**24.4**	**2.4**	1.9 U	**2.7**	**3.7**
Barium	mg/kg	220,000	**63.9**	**72.4**	**59.5**	**354**	N/A	**81**	**420 J**	**520 J**
Beryllium	mg/kg	2,300	0.91 U	0.85 U	0.81 U	**1.3**	N/A	0.78 U	**3.3**	**4.2**
Cadmium	mg/kg	980	**0.59 J**	**0.67 J**	**0.94 J**	**13.2**	N/A	**1.4**	0.41 B	1.7 U
Chromium	mg/kg	120,000	**900**	**1,050**	**834**	**128**	N/A	**1,080**	**374**	**2.8**
Chromium VI	mg/kg	6.3	**3.2**	0.63 B	0.52 B	0.25 B	N/A	0.48 B	0.47 B	0.37 B
Cobalt	mg/kg	350	4.6 U	4.2 U	4 U	**23.8**	N/A	**0.56 J**	**4.7**	**0.51 J**
Copper	mg/kg	47,000	**26.7**	**18.8**	**16.2**	**214**	N/A	**49.4**	**31.8 J**	**48.4 J**
Iron	mg/kg	820,000	**175,000**	**178,000**	**178,000**	**110,000**	N/A	**194,000**	**184,000**	**12,200**
Lead	mg/kg	800	**8.5**	**7.7**	**21**	**1,760**	**46.9**	**49.2**	**11 J**	**7.4 J**
Manganese	mg/kg	26,000	**23,300**	**28,400**	**27,000**	**3,480**	N/A	**25,900**	**14,100**	**2,230**
Mercury	mg/kg	350	**0.013 J**	0.11 U	**0.0076 J**	**0.14**	N/A	**0.031 J**	0.1 U	0.13 U
Nickel	mg/kg	22,000	**20**	**14.7**	**21.4**	**109**	N/A	**26.4**	**30.2**	11.1 U
Selenium	mg/kg	5,800	3.6 U	3.4 U	3.2 U	**4.5**	N/A	3.1 U	**2.8 J**	**5.7**
Silver	mg/kg	5,800	**0.89 J**	**0.91 J**	**1 J**	**3.2**	N/A	**1.7 J**	**0.72 J**	3.3 U
Thallium	mg/kg	12	**6 J**	**10.6**	**6 J**	9.1 U	N/A	**10**	**3.9 J**	11.1 U
Vanadium	mg/kg	5,800	**556**	**690**	**482**	**54.5**	N/A	**693**	**320**	**12.2**
Zinc	mg/kg	350,000	**279**	**188**	**490**	**4,270**	N/A	**996**	**207 J**	3.7 B
Other										
Cyanide	mg/kg	150	**0.18 J**	**0.063 J**	**0.26 J**	**4.4**	N/A	**0.49 J**	**0.5 J-**	**0.98 J-**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-058-SB-1 10/20/2016	B18-059-SB-1 10/18/2016	B18-059-SB-7.5 10/18/2016	B18-060-SB-1 10/17/2016	B18-060-SB-5 10/17/2016	B18-061-SB-1* 10/26/2016	B18-061-SB-4* 10/26/2016	B18-066-SB-1 10/24/2016
Metals										
Aluminum	mg/kg	1,100,000	**15,800**	**17,800**	**54,900**	**16,500**	**10,900**	**8,380**	**37,100**	**16,600**
Antimony	mg/kg	470	2.5 UJ	2.4 UJ	3.4 UJ	2.4 UJ	2.9 UJ	2.7 U	3.5 U	2.5 UJ
Arsenic	mg/kg	3	2.1 U	2 U	**4.2 J**	2 U	**22.2**	**22.5**	**3.7**	2.1 U
Barium	mg/kg	220,000	**125 J**	**49.5**	**485**	**175 J**	**193 J**	**179**	**581**	**74.8 J**
Beryllium	mg/kg	2,300	**0.99**	0.81 U	**8.5**	**0.82**	**0.87 J**	**0.84 J**	**5.9**	0.84 U
Cadmium	mg/kg	980	**1.8**	0.73 B	0.31 B	0.56 B	**2.3**	**3**	1.8 U	**0.85 J**
Chromium	mg/kg	120,000	**941**	**1,080 J**	**9.1 J**	**972**	**102**	**102**	**7.6**	**1,210**
Chromium VI	mg/kg	6.3	0.35 B	**5.8 J-**	0.4 B	0.54 B	0.58 B	0.56 B	0.5 B	0.69 B
Cobalt	mg/kg	350	**1.5 J**	8.1 U	**0.92 J**	4.1 U	**15.1**	**20.3**	**1.7 J**	4.2 U
Copper	mg/kg	47,000	**29.6 J**	**15.6**	**35.3**	**22.6**	**156**	**134**	**28.5**	**18.3 J**
Iron	mg/kg	820,000	**161,000**	**179,000**	**28,900**	**174,000**	**66,900**	**35,500**	**5,700**	**162,000**
Lead	mg/kg	800	**50.4 J**	**11.3**	2.8 U	**22.9**	**522**	**215**	**16.9**	**14.7 J**
Manganese	mg/kg	26,000	**20,400**	**32,400**	**6,470**	**24,700**	**1,650**	**1,680**	**1,110**	**33,700**
Mercury	mg/kg	350	**0.18 J+**	**0.0034 J+**	0.14 U	**0.059 J**	**3.8**	**0.41**	**0.019 J**	**0.0067 J-**
Nickel	mg/kg	22,000	**16.9**	**13.4 J**	**4.9 J**	**12.5**	**71.7**	**123**	**5.5 J**	**12**
Selenium	mg/kg	5,800	3.3 U	3.2 U	**2.9 J**	3.3 UJ	3.9 UJ	3.6 U	**4 J**	3.4 U
Silver	mg/kg	5,800	2.5 U	**1.8 J**	3.4 U	**1.6 J**	**0.84 J**	2.7 U	3.5 U	**1.6 J**
Thallium	mg/kg	12	**12.3**	16.1 U	11.4 U	**8.7**	9.7 U	9.1 U	11.7 U	**11.2**
Vanadium	mg/kg	5,800	**634**	**758 J**	**34.1 J**	**618**	**24.7**	**41**	**7**	**647**
Zinc	mg/kg	350,000	**1,620 J**	**148**	**5.7**	**397**	**727**	**448**	**42.3**	**260 J**
Other										
Cyanide	mg/kg	150	**0.9 J-**	**1.1 J-**	**1.4 J-**	**1.5 J-**	**12.2 J-**	**0.21 J**	**0.86**	**0.29 J**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-066-SB-4 10/24/2016	B18-067-SB-1 10/24/2016	B18-067-SB-4 10/24/2016	B18-068-SB-1* 10/21/2016	B18-068-SB-9* 10/21/2016	B18-069-SB-1* 10/21/2016	B18-069-SB-8* 10/21/2016	B18-070-SB-1* 10/26/2016
Metals										
Aluminum	mg/kg	1,100,000	**14,900**	**86,900**	**30,400**	**9,080**	**26,000**	**15,900**	**43,000**	**10,400**
Antimony	mg/kg	470	2.7 UJ	2.6 UJ	2.7 UJ	2.4 U	2.8 U	2.5 U	3 U	2.5 U
Arsenic	mg/kg	3	**15**	2.2 U	2.3 U	2 U	**5**	2.1 U	2.5 U	2.1 U
Barium	mg/kg	220,000	**204 J**	**57.7 J**	**878 J**	**56.9**	**180**	**117**	**505**	**54.1**
Beryllium	mg/kg	2,300	**1.5**	0.86 U	**2.3**	**0.17 J**	**2.3**	**1**	**3.7**	0.85 U
Cadmium	mg/kg	980	**13.8**	**0.35 J**	**0.51 J**	**0.74 J**	**0.55 J**	**0.73 J**	1.5 U	**0.45 J**
Chromium	mg/kg	120,000	**284**	**644**	**38**	**1,200**	**11.2**	**1,190**	**4.3**	**1,310**
Chromium VI	mg/kg	6.3	0.87 B	0.66 B	0.23 B	2.3 B	0.45 B	1.1 B	0.32 B	1.7 B
Cobalt	mg/kg	350	**22.6**	4.3 U	**1.9 J**	**2.8 J**	**7.9**	**1.4 J**	5 U	4.2 U
Copper	mg/kg	47,000	**176 J**	**11.7 J**	**6.7 J**	**31**	**143**	**48.7**	**28.7**	**10.9**
Iron	mg/kg	820,000	**151,000**	**90,300**	**9,780**	**191,000**	**81,800**	**140,000**	**5,910**	**220,000**
Lead	mg/kg	800	**3,850 J**	**9.2 J**	**71.6 J**	**112**	**40.4**	**237**	**3.9**	**2.8**
Manganese	mg/kg	26,000	**5,570**	**19,800**	**10,500**	**26,500**	**2,210**	**21,000**	**2,200**	**27,900**
Mercury	mg/kg	350	**27.8 J-**	0.1 UJ	0.11 UJ	**0.029 J**	**0.028 J**	**0.12**	0.12 U	**0.047 J**
Nickel	mg/kg	22,000	**173**	**4.2 J**	**2.8 J**	**31.8**	**8.9 J**	**28.6**	10 U	**14.2**
Selenium	mg/kg	5,800	3.6 U	3.4 U	3.6 U	3.2 U	**2.4 J**	3.3 U	**7.6**	3.4 U
Silver	mg/kg	5,800	**6.5**	2.6 U	2.7 U	**0.6 J**	2.8 U	2.5 U	3 U	**2.1 J**
Thallium	mg/kg	12	**13.3**	8.6 U	9 U	**14.7**	9.3 U	**12.1**	10 U	**10.6**
Vanadium	mg/kg	5,800	**746**	**381**	**126**	**628**	**44.7**	**587**	**23.6**	**771**
Zinc	mg/kg	350,000	**6,690 J**	**57.2 J**	**103 J**	**144**	**132**	**249**	1.2 B	**110**
Other										
Cyanide	mg/kg	150	**25.6**	**0.11 J**	**19.1**	**1**	**0.8**	**3.3**	**2.4**	**0.46 J**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-070-SB-5* 10/26/2016	B18-071-SB-1* 10/26/2016	B18-071-SB-5* 10/26/2016	B18-072-SB-1* 10/26/2016	B18-072-SB-4* 10/26/2016	B18-073-SB-1 10/24/2016	B18-073-SB-5 10/24/2016	B18-074-SB-1 10/17/2016
Metals										
Aluminum	mg/kg	1,100,000	**12,800**	**4,900**	**5,360**	**5,750**	**6,500**	**14,600**	**11,200**	**4,670**
Antimony	mg/kg	470	**2 J**	2.5 U	2.5 U	2.6 U	2.9 U	2.5 UJ	2.3 UJ	2.9 UJ
Arsenic	mg/kg	3	**11.6**	**4.6**	**2.3**	**2.1 J**	**7.8**	2.1 U	1.9 U	2.4 U
Barium	mg/kg	220,000	**267**	**64**	**53.3**	**36**	**48.5**	**73 J**	**21.9 J**	**36.2 J**
Beryllium	mg/kg	2,300	**1.1**	0.85 U	**0.23 J**	0.86 U	0.96 U	0.83 U	0.77 U	0.95 U
Cadmium	mg/kg	980	**2.3**	**11.7**	**8.6**	**18.7**	**22**	**0.64 J**	**0.55 J**	0.36 B
Chromium	mg/kg	120,000	**181**	**706**	**512**	**356**	**318**	**1,080**	**1,140**	**395**
Chromium VI	mg/kg	6.3	0.59 B	0.39 B	0.46 B	0.38 B	0.31 B	0.88 B	**2.8 J-**	0.3 B
Cobalt	mg/kg	350	**16.5**	**7.8**	**4.1 J**	**3.5 J**	**5.2**	4.2 U	**0.97 J**	4 B
Copper	mg/kg	47,000	**232**	**82.6**	**81.1**	**72**	**554**	**28.6 J**	**25.6 J**	**17.7**
Iron	mg/kg	820,000	**167,000**	**132,000**	**125,000**	**225,000**	**317,000**	**195,000**	**350,000**	**75,600**
Lead	mg/kg	800	**406**	**445**	**253**	**660**	**1,120**	**7 J**	**22.8 J**	**7.2**
Manganese	mg/kg	26,000	**5,560**	**7,990**	**5,350**	**8,260**	**9,800**	**23,500**	**25,200**	**12,300**
Mercury	mg/kg	350	**0.079 J**	**0.031 J**	**0.012 J**	**0.048 J**	**0.12**	**0.0077 J-**	0.11 UJ	**0.025 J**
Nickel	mg/kg	22,000	**78.9**	**61.3**	**35.1**	**41.6**	**70.3**	**15.5**	**42.9**	**14.3**
Selenium	mg/kg	5,800	3.9 U	3.4 U	3.3 U	3.4 U	3.8 U	3.3 U	3.1 U	3.8 UJ
Silver	mg/kg	5,800	**1.3 J**	**2.7**	**2.8**	**7.2**	**9.3**	**2.1 J**	**4.4**	**0.9 J**
Thallium	mg/kg	12	9.8 U	**7.3 J**	8.3 U	8.6 U	9.6 U	**7.3 J**	**9.6**	9.5 U
Vanadium	mg/kg	5,800	**296**	**724**	**273**	**160**	**153**	**531**	**858**	**184**
Zinc	mg/kg	350,000	**579**	**10,100**	**8,250**	**21,100**	**27,800**	**190 J**	**180 J**	**98.5**
Other										
Cyanide	mg/kg	150	**0.42 J**	**0.33 J**	**0.94**	**0.27 J**	**2.1**	**0.14 J**	0.67 U	**0.48 J-**

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Table 7 - Parcel B18
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B18-074-SB-9 10/17/2016	B18-075-SB-2* 10/27/2016	B18-075-SB-5.5* 12/1/2016	B18-075-SB-10* 12/1/2016	B18-076-SB-1 10/17/2016	B18-077-SB-1* 6/28/2017	B18-077-SB-4.5* 6/28/2017
Metals									
Aluminum	mg/kg	1,100,000	**13,100**	**14,700**	**22,500**	**19,700**	**12,200**	**6,430**	**44,500**
Antimony	mg/kg	470	3.2 UJ	2.6 U	2.9 U	2.7 U	2.3 UJ	2.4 U	2.8 U
Arsenic	mg/kg	3	**8.4**	2.1 U	**4.2**	**5.2**	1.9 U	**13.5**	**4.4**
Barium	mg/kg	220,000	**152 J**	**73.5**	**404**	**78.2**	**28 J**	150 B	809 B
Beryllium	mg/kg	2,300	**1 J**	0.86 U	**1.1**	**0.44 J**	0.77 U	**0.82**	**3**
Cadmium	mg/kg	980	0.46 B	0.43 B	0.52 B	1.3 U	0.78 B	**6.1**	1.4 U
Chromium	mg/kg	120,000	**34.7**	**680**	**43.9**	**29.8**	**1,070**	**57**	**43.3**
Chromium VI	mg/kg	6.3	0.36 B	**3.2**	0.55 B	0.42 B	**1.1 J-**	0.72 B	0.74 B
Cobalt	mg/kg	350	**9.4**	**1.9 J**	**5**	**4.5**	3.9 U	**12.2**	**2.5 J**
Copper	mg/kg	47,000	**61.3**	**26.5**	**31.6**	**13.1**	**10.9**	**70**	**54**
Iron	mg/kg	820,000	**42,700**	**129,000**	**22,700**	**20,400**	**159,000**	**48,500**	**26,200**
Lead	mg/kg	800	**99.5**	**18.8**	**50.7**	**18.2**	**5.2**	**440**	**34.4**
Manganese	mg/kg	26,000	**1,870**	**17,300**	**3,290**	**177**	**29,100**	2,120 B	2,750 B
Mercury	mg/kg	350	**0.013 J**	**0.29**	**0.051 J**	**0.039 J**	0.099 U	**0.12**	**0.0098 J**
Nickel	mg/kg	22,000	**26.7**	**22.4**	**17.6**	**13.5**	**9.5**	**22.2**	**8.7 J**
Selenium	mg/kg	5,800	4.3 UJ	3.4 U	3.9 U	3.5 U	3.1 UJ	3.2 U	**4**
Silver	mg/kg	5,800	3.2 U	**1.1 J**	2.9 U	2.7 U	**3**	**6.4**	**12.4**
Thallium	mg/kg	12	10.8 U	**4.7 J**	9.7 U	8.9 U	**8.4**	8 U	9.3 U
Vanadium	mg/kg	5,800	**59.9**	**328**	**77.7**	**38.9**	**680**	**109**	**19.8**
Zinc	mg/kg	350,000	**161**	**93.1**	**158**	**50.2**	**331**	1,490 B	40.2 B
Other									
Cyanide	mg/kg	150	**0.16 J-**	**6.7**	**1.4**	**0.28 J**	**0.5 J-**	**1.2**	**4.9**

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Table 8 - Parcel B18
Summary of Soil PAL Exceedances

Parameter	CAS#	Frequency of Detections (%)*	Frequency of Exceedances (%)*	Sample ID of Max Result	Max Result	PAL Solid	Unit
1,1-Biphenyl	92-52-4	38%	1%	B18-029-SB-4	5,760	200	mg/kg
2,6-Dinitrotoluene	606-20-2	2%	1%	B18-029-SB-4	2.7	1.5	mg/kg
Arsenic	7440-38-2	57%	50%	B18-030-SB-1.5	50.3 J	3	mg/kg
Benz[a]anthracene	56-55-3	94%	6%	B18-029-SB-4	1,920	21	mg/kg
Benzene	71-43-2	24%	2%	B18-029-SB-4	2,550	5	mg/kg
Benzo[a]pyrene	50-32-8	94%	27%	B18-029-SB-4	1,600	2.1	mg/kg
Benzo[b]fluoranthene	205-99-2	98%	6%	B18-029-SB-4	2,880	21	mg/kg
Benzo[k]fluoranthene	207-08-9	98%	2%	B18-029-SB-4	2,600	210	mg/kg
Chromium VI	18540-29-9	16%	3%	B18-008-SB-1	93.2 J-	6	mg/kg
Dibenz[a,h]anthracene	53-70-3	84%	8%	B18-029-SB-4	188	2.1	mg/kg
Diesel Range Organics	DRO	100%	2%	B18-029-SB-4	106,000	6,200	mg/kg
Ethylbenzene	100-41-4	7%	2%	B18-029-SB-4	41.9	25	mg/kg
Indeno[1,2,3-c,d]pyrene	193-39-5	92%	5%	B18-029-SB-4	567	21	mg/kg
Lead	7439-92-1	95%	6%	B18-043-SB-5	9,580	800	mg/kg
Manganese	7439-96-5	98%	19%	B18-027-SB-1	45,000	26,000	mg/kg
Naphthalene	91-20-3	90%	5%	B18-029-SB-4	29,300	8.6	mg/kg
Oil & Grease	O&G	79%	4%	B18-029-SB-4	89,000	6,200	mg/kg
PCBs (total)	1336-36-3	14%	1%	B18-017-SB-1	1.005	0.97	mg/kg
Thallium	7440-28-0	48%	12%	B18-034-SB-1	17.7	12	mg/kg

*Frequency of detections and exceedances calculated as a percentage based on the total number of samples analyzed for the parameter (excluding any rejected data results).

Table 9 - Parcel B18
Soil PAL Exceedances for Specific Targets

Target Feature	Boring ID	Sample Depth	Parameter	PAL (mg/kg)	Result (mg/kg)	Final Flag
Coke Battery (4)	B18-001-SB	1	Benz[a]anthracene	21	21.3	
		1	Benzo[a]pyrene	2.1	11.6	
		1	Benzo[b]fluoranthene	21	37.9	
		1	Dibenz[a,h]anthracene	2	4	
		1	Manganese	26,000	26,200	
		4	Arsenic	3	3.3	
	B18-002-SB	1	Arsenic	3	7.9	
	B18-004-SB	1	Arsenic	3	6.1	
		1	Chromium VI	6.3	42.5	
	B18-007-SB	1	Chromium VI	6.3	7.2	
		1	Manganese	26,000	31,300	
		4	Arsenic	3	4.1	
	B18-008-SB	1	Chromium VI	6.3	93.2	J-
		1	Manganese	26,000	29,700	
Coke Oven Lab	B18-009-SB	1	Manganese	26,000	28,600	
		1	Thallium	12	13.6	
		4	Benzo[a]pyrene	2.1	2.7	
	B18-010-SB	1	Benzo[a]pyrene	2.1	3.7	
		1	Manganese	26,000	29,300	
		1	Thallium	12	15.5	
		6	Benzo[a]pyrene	2.1	11.2	J
		6	Dibenz[a,h]anthracene	2.1	5.1	
Coke Wharf	B18-011-SB	4	Arsenic	3	14	
		4	Benz[a]anthracene	21	135	
		4	Benzo[a]pyrene	2.1	126	
		4	Benzo[b]fluoranthene	21	135	
		4	Dibenz[a,h]anthracene	2.1	5.7	
		4	Indeno[1,2,3-c,d]pyrene	21	49	
		4	Lead	800	961	
		4	Naphthalene	8.6	140	
Cooling Slag	B18-013-SB	4	Arsenic	3	11.6	
	B18-014-SB	1	Manganese	26,000	27,800	
		5	Arsenic	3	7.4	
Disintegrator Building	B18-015-SB	1	Thallium	12	13.5	
	B18-016-SB	1	Arsenic	3	4.5	
Electric Substation	B18-017-SB	1	PCBs (total)	0.97	1.005	
	B18-018-SB	7	Arsenic	3	3.9	
Filter Building	B18-019-SB	8	Arsenic	3	16.8	
		11	Arsenic	3	4	
	B18-020-SB	14	Arsenic	3	11.7	

Table 9 - Parcel B18
Soil PAL Exceedances for Specific Targets

Target Feature	Boring ID	Sample Depth	Parameter	PAL (mg/kg)	Result (mg/kg)	Final Flag
Filters	B18-021-SB	1	Manganese	26,000	29,500	
		4	Benzo[a]pyrene	2.1	9.9	
	B18-022-SB	1	Manganese	26,000	31,900	
Hot Slag Pits	B18-023-SB	6	Arsenic	3	10	
	B18-024-SB	1	Chromium VI	6.3	7.3	J-
		1	Manganese	26,000	36,600	
		4	Arsenic	3	4.5	
Mechanical Maintenance Yard	B18-025-SB	1	Thallium	12	12.8	
		5	Arsenic	3	15.1	
	B18-026-SB	1	Arsenic	3	20.8	
		1	Benzo[a]pyrene	2.1	3.3	
		4	Arsenic	3	25.4	
Mechanical Maintenance Shop	B18-027-SB	1	Arsenic	3	8.8	
		1	Manganese	26,000	45,000	
		7	Arsenic	3	14.8	
	B18-028-SB	1.5	Arsenic	3	32	J
Mechanical Maintenance Storage	B18-029-SB	2	Arsenic	3	12.9	J
		2	Benz[a]anthracene	21	362	
		2	Benzo[a]pyrene	2.1	145	
		2	Benzo[b]fluoranthene	21	557	
		2	Benzo[k]fluoranthene	210	503	
		2	Dibenz[a,h]anthracene	2.1	38.3	
		2	Indeno[1,2,3-c,d]pyrene	21	90.6	
		2	Naphthalene	8.6	59.6	
		4	1,1-Biphenyl	200	5,760	
		4	2,6-Dinitrotoluene	1.5	2.7	
		4	Arsenic	3	29.2	J
		4	Benz[a]anthracene	21	1,920	
		4	Benzene	5.1	2,550	
		4	Benzo[a]pyrene	2.1	1,600	
		4	Benzo[b]fluoranthene	21	2,880	
		4	Benzo[k]fluoranthene	210	2,600	
		4	Dibenz[a,h]anthracene	2.1	188	
		4	Diesel Range Organics	6,200	106,000	
		4	Ethylbenzene	25	41.9	
		4	Indeno[1,2,3-c,d]pyrene	21	567	
		4	Naphthalene	8.6	29,300	
		4	Oil & Grease	6,200	89,000	
	B18-030-SB	1.5	Arsenic	3	50.3	J
		6	Arsenic	3	5.8	J

Table 9 - Parcel B18
Soil PAL Exceedances for Specific Targets

Target Feature	Boring ID	Sample Depth	Parameter	PAL (mg/kg)	Result (mg/kg)	Final Flag
Mechanical Maintenance Office and Service Building	B18-031-SB	1	Arsenic	3	5.2	J
		1	Benzo[a]pyrene	2.1	4	
		6	Arsenic	3	8.7	J
	B18-032-SB	1.5	Arsenic	3	19	J
		1.5	Benzo[a]pyrene	2.1	5.9	J
		6	Arsenic	3	19.1	J
Phoenix Recycle Area	B18-033-SB	1	Thallium	12	13.1	
	B18-034-SB	1	Manganese	26,000	32,100	
		1	Thallium	12	17.7	
		5	Arsenic	3	10.4	
Pipe Shop	B18-035-SB	1	Arsenic	3	3.6	
		4	Arsenic	3	5.8	
	B18-036-SB	1	Arsenic	3	16	
Tar Pump House/Oil Station	B18-037-SB	1	Arsenic	3	4	
		1	Benzo[a]pyrene	2.1	4.7	
		5	Benz[a]anthracene	21	36.1	
		5	Benzo[a]pyrene	2.1	40.8	J
		5	Benzo[b]fluoranthene	21	75.9	J
		5	Dibenz[a,h]anthracene	2.1	5.2	
		5	Indeno[1,2,3-c,d]pyrene	21	21.2	
	B18-038-SB	1	Benzo[a]pyrene	2.1	6.4	
Pump House	B18-039-SB	1	Arsenic	3	16.5	
		4	Arsenic	3	24.8	
	B18-040-SB	1	Arsenic	3	9	
		1	Benzo[a]pyrene	2.1	4.5	
		8	Arsenic	3	13.9	
Shipyard Apparent Impoundment and Sparrows Point Shipyard	B18-041-SB	1	Arsenic	3	10.1	
		1	Benzo[a]pyrene	2.1	5.7	
		7.5	Arsenic	3	5.5	
		7.5	Benzo[a]pyrene	2.1	6.2	
	B18-042-SB	1	Arsenic	3	30.9	
		1	Benzo[a]pyrene	2.1	2.2	
		1	Lead	800	2,320	
		1	Thallium	12	15.3	
		5	Arsenic	3	20.8	
	B18-043-SB	1	Arsenic	3	12.5	
		1	Benzo[a]pyrene	2.1	4.1	
		1	Lead	800	1,340	
		5	Arsenic	3	46.4	
		5	Benzo[a]pyrene	2.1	8.9	
		5	Lead	800	9,580	
		5	Thallium	12	12.5	

Table 9 - Parcel B18
Soil PAL Exceedances for Specific Targets

Target Feature	Boring ID	Sample Depth	Parameter	PAL (mg/kg)	Result (mg/kg)	Final Flag
No. 10 Fuel Storage Tank	B18-046-SB	1	Manganese	26,000	30,400	
		1	Thallium	12	12	
		8	Oil & Grease	6,200	8,780	
Repair Shop	B18-047-SB	1	Arsenic	3	5.9	J
		1	Benzo[a]pyrene	2.1	7.3	
		4	Arsenic	3	45.7	J
		4	Benz[a]anthracene	21	589	
		4	Benzo[a]pyrene	2.1	386	
		4	Benzo[b]fluoranthene	21	782	
		4	Benzo[k]fluoranthene	210	707	
		4	Dibenz[a,h]anthracene	2	74	
		4	Diesel Range Organics	6,200	14,700	
		4	Indeno[1,2,3-c,d]pyrene	21	145	
		4	Naphthalene	8.6	66.2	
		4	Oil & Grease	6,200	41,400	
	B18-048-SB	2	Arsenic	3	25.6	J
		2	Benzo[a]pyrene	2.1	4.5	J
		2	Lead	800	820	
		4	Arsenic	3	20.8	J
Service Building	B18-049-SB	1	Benzo[a]pyrene	2.1	37.5	J
		1	Benzo[b]fluoranthene	21	73.7	J
		1	Dibenz[a,h]anthracene	2.1	3.7	
		1	Naphthalene	8.6	12.3	
		1	Oil & Grease	6,200	16,200	
		4	Arsenic	3	8.9	
		4	Manganese	26,000	30,200	
		4	Thallium	12	13.3	
	B18-050-SB	1	Manganese	26,000	26,400	
		1	Thallium	12	15.6	
		5	Benzo[a]pyrene	2.1	9.3	
		5	Naphthalene	8.6	11.7	
		5	Oil & Grease	6,200	8,890	
Settling Basin	B18-052-SB	1	Manganese	26,000	28,700	
Spray Pond	B18-053-SB	1	Manganese	26,000	27,300	
		5	Manganese	26,000	30,400	
	B18-054-SB	5	Manganese	26,000	28,400	
Storage Shed	B18-055-SB	1	Manganese	26,000	27,000	
		5	Arsenic	3	24.4	
		5	Lead	800	1,760	

Table 9 - Parcel B18
Soil PAL Exceedances for Specific Targets

Target Feature	Boring ID	Sample Depth	Parameter	PAL (mg/kg)	Result (mg/kg)	Final Flag
Tar Storage Tanks (2)	B18-057-SB	1	Benzo[a]pyrene	2.1	3.2	
		4	Arsenic	3	3.7	
	B18-058-SB	1	Benzo[a]pyrene	2	3	
		1	Thallium	12	12	
	B18-059-SB	1	Manganese	26,000	32,400	
		7.5	Arsenic	3	4.2	J
	B18-060-SB	5	Arsenic	3	22	
		5	Benzo[a]pyrene	2.1	5.4	
Belt Storage	B18-061-SB	1	Arsenic	3	23	
		4	Arsenic	3	3.7	
No. 1 Boiler House	B18-066-SB	1	Manganese	26,000	33,700	
		4	Arsenic	3	15	
		4	Lead	800	3,850	J
		4	Thallium	12	13.3	
No. 1 Pump Station	B18-068-SB	1	Manganese	26,000	26,500	
		1	Thallium	12	14.7	
		9	Arsenic	3	5	
	B18-069-SB	1	Benzo[a]pyrene	2.1	10.2	
		1	Thallium	12	12.1	
Turbo Generator	B18-070-SB	1	Manganese	26,000	27,900	
		5	Arsenic	3	11.6	
Old No. 1 & No. 2 Gas Engines	B18-071-SB	1	Arsenic	3	4.6	
	B18-072-SB	4	Arsenic	3	7.8	
		4	Lead	800	1,120	
Fuel Oil Storage Tank & Small ASTs	B18-077-SB	1	Arsenic	3	13.5	
		1	Benzo[a]pyrene	2.1	3.7	
		4.5	Arsenic	3	4.4	

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

Site-wide borings providing general coverage are not included on this table.

Table 10 - Parcel B18
Summary of Organics Detected in Groundwater

Parameter	Units	PAL	B18-007-PZ* 12/13/2016	B18-046-PZ* 12/13/2016	B18-061-PZ* 12/13/2016	B18-070-PZ 12/14/2016	B18-071-PZ 12/14/2016	B18-072-PZ 12/14/2016	B18-074-PZ 12/14/2016	B18-075-PZ 12/14/2016	B18-076-PZ* 12/13/2016	B18-077-PZ* 8/10/2017
Volatile Organic Compounds												
1,1-Dichloroethane	µg/L	2.7	1 U	1 U	1 U	**2.2**	**5.7**	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	µg/L	7	1 U	1 U	1 U	1 U	**7**	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	**8.5 J**	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	38	10 U	10 U	10 U	10 U	**2.1 J**	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)	µg/L	1,200	10 U	10 U	10 U	10 U	**1.6 J**	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	14,000	**3.8 J**	**2.1 J**	**1.9 J**	**2.4 J**	**84.7**	**7.2 J**	10 U	**2.5 J**	**2.8 J**	**9.1 J**
Benzene	µg/L	5	**67.2**	1 U	1 U	**0.55 J**	1 U	1 U	**2.8**	1 U	1 U	1 U
Bromodichloromethane	µg/L	0.13	1 U	**5.5**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	µg/L	3.3	1 U	**0.35 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	µg/L	0.22	**0.73 J**	**8.8**	**3.1**	**1**	**12.5**	1 U	1 U	1 U	**0.55 J**	1 U
Cyclohexane	µg/L	13,000	10 U	10 U	10 U	10 U	10 U	10 U	**2.9 J**	10 U	10 U	10 U
Dibromochloromethane	µg/L	0.17	1 U	**2.1**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	µg/L	700	**1.8**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	µg/L	450	**0.25 J**	1 U	1 U	1 U	1 U	1 U	**1.2**	1 U	1 U	1 U
Methyl Acetate	µg/L	20,000	5 U	5 U	5 U	5 U	**5.8**	5 U	5 U	5 U	**0.32 J**	5 U
Methyl tert-butyl ether (MTBE)	µg/L	14	1 U	1 U	**0.47 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	µg/L	100	**2.1**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	µg/L	1,000	**30.1**	**0.27 J**	1 U	1 U	**0.48 J**	1 U	1 U	1 U	1 U	1 U
Xylenes	µg/L	10,000	**29.3**	**1.3 J**	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Semi-Volatile Organic Compounds^												
1,1-Biphenyl	µg/L	0.83	**1.4**	**0.74 J**	1 U	1 U	1 U	1 U	**0.49 J**	1 U	1 U	0.99 U
1,4-Dioxane	µg/L	0.46	**0.47**	**0.11**	**0.33**	**1.6**	**1.4**	**0.11**	**0.38**	**0.29**	**0.29**	0.099 U
2,4-Dimethylphenol	µg/L	360	**4.1**	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	0.99 U
2,4-Dinitrophenol	µg/L	39	2.5 U	2.5 U	2.5 U	2.5 U	**0.56 J**	2.6 U	2.5 U	2.5 U	2.6 U	2.5 U
2-Methylnaphthalene	µg/L	36	**11.5**	**3**	**0.028 J**	**0.3 J**	0.1 UJ	0.1 U	**3.5**	**0.21**	0.1 U	0.099 U
2-Methylphenol	µg/L	930	**2.9**	1 U	1 U	1 U	**11.8**	1 U	1 U	1 U	1 U	0.99 U
3&4-Methylphenol(m&p Cresol)	µg/L	930	**4.9**	2 U	2 U	2 U	**2.7**	2.1 U	2 U	2 U	2 U	2 U
Acenaphthene	µg/L	530	**1.2**	**0.29**	0.1 U	**0.67 J**	0.1 U	**0.18 J**	**0.55**	**0.11**	**0.017 J**	0.099 U
Acenaphthylene	µg/L	530	**1.2**	**0.33**	0.1 U	**0.025 J**	0.1 UJ	**0.033 J**	**0.045 J**	**0.31 J**	**0.016 J**	0.099 U
Acetophenone	µg/L	1,900	**0.35 J**	1 U	1 U	1 U	**0.4 J**	1 U	1 U	1 U	1 U	0.99 U
Anthracene	µg/L	1,800	**0.51**	**0.14**	**0.029 J**	**0.25 J**	**0.019 J**	**0.12 J**	**0.54**	**0.38**	**0.1**	**0.095 J**
Benz[a]anthracene	µg/L	0.03	**0.043 J**	0.034 B	0.1 U	0.063 B	0.026 B	0.1 UJ	0.067 B	**0.07 J**	0.034 B	0.099 U
Benzaldehyde	µg/L	1,900	1 U	1 U	1 U	1 U	**4.3**	1 U	1 U	1 U	1 U	0.99 U
Benzo[a]pyrene	µg/L	0.2	**0.01 J**	0.1 U	0.1 U	**0.013 J**	**0.014 J**	0.1 UJ	**0.049 J**	**0.024 J**	**0.0093 J**	0.099 U
Benzo[b]fluoranthene	µg/L	0.25	0.1 U	0.1 U	0.1 U	**0.018 J**	0.1 U	0.1 UJ	**0.031 J**	**0.028 J**	0.1 U	0.099 U
Benzo[g,h,i]perylene	µg/L		0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	**0.043 J**	0.1 U	0.1 U	0.099 U
Benzo[k]fluoranthene	µg/L	2.5	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	**0.012 J**	**0.013 J**	0.1 U	0.099 U
bis(2-Ethylhexyl)phthalate	µg/L	6	1 U	1 U	1 U	1 U	**0.59 J**	1 U	**1 J**	1 U	**0.22 J**	0.99 U
Caprolactam	µg/L	9,900	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.6 U	2.5 U	**0.23 J**	2.6 U	2.5 U
Carbazole	µg/L		**17.3**	1 U	1 U	**0.23 J**	1 U	1 U	1 U	**1.2**	1 U	0.99 U
Chrysene	µg/L	25	**0.033 J**	**0.026 J**	0.1 U	**0.053 J**	**0.029 J**	0.1 UJ	**0.11**	**0.056 J**	**0.015 J**	0.099 U
Diethylphthalate	µg/L	15,000	1 U	**0.21 J**	**0.33 J**	**0.48 J**	1 U	1 U	**1.4**	**0.31 J**	**0.42 J**	0.99 U
Fluoranthene	µg/L	800	**0.69**	**0.1**	**0.022 J**	**0.4 J**	**0.054 J**	**0.043 J**	**0.14**	**0.83**	**0.12**	0.099 U
Fluorene	µg/L	290	**5.4**	**0.59**	**0.05 J**	**0.32 J**	0.1 U	**0.028 J**	**0.65**	**0.63**	**0.026 J**	0.099 U
Naphthalene	µg/L	0.12	**411**	**3.8**	**0.48**	**0.13**	0.019 B	0.064 B	**3**	**1.6**	0.049 B	0.099 U
Pentachlorophenol	µg/L	1	**0.75 J**	2.5 U	2.5 U	2.5 U	2.5 U	**0.74 J**	2.5 U	2.5 U	2.6 U	2.5 U
Phenanthrene	µg/L		**6.5**	**1.3**	**0.03 J**	**3.1 J**	**0.16**	**0.03 J**	**1.9**	**1.3**	**0.05 J**	0.099 U
Phenol	µg/L	5,800	**4**	1 U	1 U	1 U	**7.6**	1 U	1 U	1 U	1 U	0.99 U
Pyrene	µg/L	120	**0.5**	**0.26**	**0.017 J**	**0.5 J**	**0.036 J**	**0.053 J**	**0.72**	**0.58**	**0.2**	**0.12**
TPH/Oil & Grease												
Diesel Range Organics	µg/L	47	**866**	**333**	**346**	**139 J**	**4,330 J**	**910 J**	**510 J**	**370 J**	**251**	**156**
Gasoline Range Organics	µg/L	47	**294**	200 U	200 U	200 U	200 U	200 U	**109 J**	200 U	200 U	200 U
Oil & Grease	µg/L	47	4,900 U	4,900 U	**35,900**	4,870 U	4,820 U†	**2,960 J**	4,820 U	4,800 U	4,850 U	4,750 U

Detections in bold
Values in red indicate exceedances of the Project Action Limit (PAL)

*Indicates non-validated data
^PAH compounds were analyzed via SIM
†B18-071 Oil & Grease sampled on 12/15/2016

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 acutal quantitation/detection limit may be higher than reported.
B: The 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 11 - Parcel B18
Summary of Inorganics Detected in Groundwater

Parameter	Units	PAL	B18-007-PZ*	B18-046-PZ*	B18-061-PZ*	B18-070-PZ	B18-071-PZ	B18-072-PZ	B18-074-PZ	B18-075-PZ	B18-076-PZ*	B18-077-PZ*
			12/13/2016	12/13/2016	12/13/2016	12/14/2016	12/15/2016	12/14/2016	12/14/2016	12/14/2016	12/13/2016	8/10/2017
Dissolved Metals												
Aluminum, Dissolved	µg/L	20,000	**242**	**33.3 J**	**64.8**	**116**	**820**	**936**	**91.1**	**367**	**180**	50 U
Arsenic, Dissolved	µg/L	10	5 U	5 U	5 U	5 U	**7.2**	5 U	5 U	5 U	5 U	5 U
Barium, Dissolved	µg/L	2,000	**99.3**	**52.6**	**69.6**	**47.9**	**54.8**	**57.4**	**48.4**	**33.2**	**38.8**	**148**
Beryllium, Dissolved	µg/L	4	1 U	1 U	1 U	**1.2**	1 U	1 U	1 U	**0.43 J**	1 U	**0.5 J**
Cadmium, Dissolved	µg/L	5	3 U	3 U	3 U	**0.6 J**	3 U	3 U	3 U	**0.79 J**	3 U	**0.56 J**
Chromium, Dissolved	µg/L	100	**0.92 J**	**0.62 J**	5 U	5 U	**3 J**	5 U	**0.66 J**	5 U	5 U	**18.4**
Cobalt, Dissolved	µg/L	6	5 U	**0.36 J**	5 U	**59.9**	5 U	5 U	5 U	**42.6**	5 U	**0.25 J**
Copper, Dissolved	µg/L	1,300	5 U	**5.3**	**4.8 J**	5 U	7.2 B	**2.3 J**	**1.6 J**	5 U	5 U	**4.3 J**
Iron, Dissolved	µg/L	14,000	**36.7 J**	**13.2 J**	**12.6 J**	**36,000**	70 U	**56.5 J**	**57.3 J**	**15,900**	**75.1**	70 U
Manganese, Dissolved	µg/L	430	5 U	**1.2 J**	**4.6 J**	**1,510**	**1.4 J**	5 U	**238**	**1,630**	**128**	**36.1**
Nickel, Dissolved	µg/L	390	10 U	**3 J**	**2.9 J**	**65.7**	**9.7 J**	**2.4 J**	**3 J**	**47.7**	**4.1 J**	10 U
Selenium, Dissolved	µg/L	50	**7.2 J**	8 U	**5.9 J**	8 U	8 U	8 U	8 U	8 U	**16.9**	8 U
Silver, Dissolved	µg/L	94	6 U	6 U	6 U	**0.88 J**	6 U	6 U	6 U	6 U	6 U	6 U
Vanadium, Dissolved	µg/L	86	**1.2 J**	**2.6 J**	**3.3 J**	1.6 B	**23.2**	**41.4**	0.76 B	2.3 B	**19.2**	**27**
Zinc, Dissolved	µg/L	6,000	**14.6**	1.6 B	**19.9**	**182**	6.8 B	1.5 B	10 U	**245**	**38.8**	9.8 B
Other												
Cyanide	µg/L	200	**38**	**2.4 J**	**11**	10 U	10 U	**130**	**84**	**8.8 J**	**110**	**4.1 J**

Detections in bold
Values in red indicate exceedances of the Project Action Limit (PAL)
*Indicates non-validated data

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

Table 12 - Parcel B18
Cumulative Vapor Instrusion Criteria Comparison

				B18-007-PZ		B18-046-PZ		B18-061-PZ		B18-070-PZ		B18-071-PZ	
Parameter	Type	Organ Systems	VI Screening Criteria	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	0.47	3.6E-11	0.11	8.5E-12	0.33	2.5E-11	1.6	1.2E-10	1.4	1.1E-10
Naphthalene	SVOC		200	411	2.1E-05	3.8	1.9E-07	0.48	2.4E-08	0.13	6.5E-09	0.019 B	0
1,1-Dichloroethane	VOC		330	1 U	0	1 U	0	1 U	0	2.2	6.7E-08	5.7	1.7E-07
Benzene	VOC		69	67.2	9.7E-06	1 U	0	1 U	0	0.55 J	8.0E-08	1 U	0
Bromodichloromethane	VOC		38	1 U	0	5.5	1.4E-06	1 U	0	1 U	0	1 U	0
Bromoform	VOC		5,100	1 U	0	0.35 J	6.9E-10	1 U	0	1 U	0	1 U	0
Chloroform	VOC		36	0.73 J	2.0E-07	8.8	2.4E-06	3.1	8.6E-07	1	2.8E-07	12.5	3.5E-06
Ethylbenzene	VOC		150	1.8	1.2E-07	1 U	0	1 U	0	1 U	0	1 U	0
Methyl tert-butyl ether (MTBE)	VOC		20,000	1 U	0	1 U	0	0.47 J	2.4E-10	1 U	0	1 U	0
Cumulative Vapor Intrusion Cancer Risk					3E-05		4E-06		9E-07		4E-07		4E-06
Non-Cancer Hazard													
Cumulative Vapor Intrusion Non-Cancer Hazard					0		0		0		0		0

Highlighted values indicate an exceedance of the cumulative vapor intrusion criteria:
TCR>1E-05
THI>1
Conc. = Concentration

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 blank or field blank.

Table 12 - Parcel B18
Cumulative Vapor Instrusion Criteria Comparison

				B18-072-PZ		B18-074-PZ		B18-075-PZ		B18-076-PZ		B18-077-PZ	
Parameter	Type	Organ Systems	VI Screening Criteria	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	0.11	8.5E-12	0.38	2.9E-11	0.29	2.2E-11	0.29	2.2E-11	0.099 U	0
Naphthalene	SVOC		200	0.064 B	0	3	1.5E-07	1.6	8.0E-08	0.049 B	0	0.099 U	0
1,1-Dichloroethane	VOC		330	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0
Benzene	VOC		69	1 U	0	2.8	4.1E-07	1 U	0	1 U	0	1 U	0
Bromodichloromethane	VOC		38	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0
Bromoform	VOC		5,100	1 U	0	1 U	0	1 U	0	1 U	0	1 U	0
Chloroform	VOC		36	1 U	0	1 U	0	1 U	0	0.55 J	1.5E-07	1 U	0
Ethylbenzene	VOC		150	1 U	0	1 U	0	1 U	0	1 U	0	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
Cumulative Vapor Intrusion Cancer Risk					8E-12		6E-07		8E-08		2E-07		0E+00
Non-Cancer Hazard													
Cumulative Vapor Intrusion Non-Cancer Hazard					0		0		0		0		0

Highlighted values indicate an exceedance of the cumulative vapor intrusion criteria:
TCR>1E-05
THI>1
Conc. = Concentration

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 blank or field blank.

Table 13 - Parcel B18
Summary of VOCs Detected in Sub-Slab Soil Gas

Parameter	Units	PAL	B18-062-SG	B18-063-SG*	B18-064-SG	B18-065-SG
			9/21/2016	9/28/2016	9/21/2016	9/21/2016
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/m3	2,200,000	**1.16**	**1.97**	**3.34**	1.09 U
1,2,4-Trichlorobenzene	µg/m3	880	1.48 U	**1.79**	1.48 U	1.48 U
1,2,4-Trimethylbenzene	µg/m3	3,100	**1.96**	0.98 U	**1.49**	**1.74**
2-Butanone (MEK)	µg/m3	2,200,000	**54.8**	**38.8**	**25.3**	**51.2**
Acetone	µg/m3	14,000,000	0.48 U	0.48 U	**162**	0.48 U
Benzene	µg/m3	1,600	**12.7**	**7.75**	**4.3**	**10.4**
Bromodichloromethane	µg/m3	340	1.34 U	1.34 U	**1.39**	1.34 U
Carbon disulfide	µg/m3	310,000	**21.7**	**64**	**15.5**	**27.4**
Chloroethane	µg/m3	4,400,000	**17.4**	**2.08**	**1.43**	**57.2**
Chloroform	µg/m3	540	**21.9**	**3.13**	**6.45**	**5.41**
Chloromethane	µg/m3	40,000	**3.49**	**0.94**	**0.65**	**24.4**
Cyclohexane	µg/m3	2,700,000	**253**	**121**	**9.53**	**456**
Dichlorodifluoromethane	µg/m3	44,000	**4.32**	**4**	**4.39**	**5.15**
Ethylbenzene	µg/m3	5,000	**1.22**	0.87 U	0.87 U	**0.95**
Methylene Chloride	µg/m3	270,000	**2.4**	**5.65**	0.78 U	**1.05**
Naphthalene	µg/m3	370	2.62 U	**2.16 J**	2.62 U	2.62 U
Toluene	µg/m3	2,200,000	**8.56**	**5.38**	**5.78**	**11**
Trichlorofluoromethane	µg/m3	310,000	**5.61**	**3**	**5.75**	**4.78**
Vinyl chloride	µg/m3	2,800	**2.29**	0.51 U	**0.61**	**1.42**
Xylenes	µg/m3	44,000	**7.22**	**2.51**	**4.21**	**5.55**

Detections in bold
Values in red indicate exceedances of the Project Action Limit (PAL)
*Indicates non-validated data

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
J: The positive result reported for this analyte is a quantitative estimate.

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-001-SB-1	2,3,4,6-Tetrachlorophenol	0.073	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.073	R	210	no
	2,4-Dichlorophenol	0.073	R	2,500	no
	2,4-Dimethylphenol	0.073	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.073	R	5,800	no
	2-Methylphenol	0.073	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.073	R	250,000	no
B18-001-SB-4	1,4-Dioxane	0.14	R	24	no
	2,3,4,6-Tetrachlorophenol	0.078	R	25,000	no
	2,4,5-Trichlorophenol	0.2	R	82,000	no
	2,4,6-Trichlorophenol	0.078	R	210	no
	2,4-Dichlorophenol	0.078	R	2,500	no
	2,4-Dimethylphenol	0.078	R	16,000	no
	2,4-Dinitrophenol	0.2	R	1,600	no
	2-Chlorophenol	0.078	R	5,800	no
	2-Methylphenol	0.078	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.16	R	41,000	no
	Bromomethane	0.0069	R	30	no
	Pentachlorophenol	0.2	R	4	no
	Phenol	0.078	R	250,000	no
B18-006-SB-1	2,3,4,6-Tetrachlorophenol	0.068	R	25,000	no
	2,4,5-Trichlorophenol	0.17	R	82,000	no
	2,4,6-Trichlorophenol	0.068	R	210	no
	2,4-Dichlorophenol	0.068	R	2,500	no
	2,4-Dimethylphenol	0.068	R	16,000	no
	2,4-Dinitrophenol	0.17	R	1,600	no
	2-Chlorophenol	0.068	R	5,800	no
	2-Methylphenol	0.068	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.17	R	4	no
	Phenol	0.068	R	250,000	no

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-008-SB-1	2,3,4,6-Tetrachlorophenol	0.07	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.07	R	210	no
	2,4-Dichlorophenol	0.07	R	2,500	no
	2,4-Dimethylphenol	0.07	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.07	R	5,800	no
	2-Methylphenol	0.07	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.07	R	250,000	no
B18-009-SB-1	1,4-Dioxane	0.089	R	24	no
	2,3,4,6-Tetrachlorophenol	0.07	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.07	R	210	no
	2,4-Dichlorophenol	0.07	R	2,500	no
	2,4-Dimethylphenol	0.07	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.07	R	5,800	no
	2-Methylphenol	0.07	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.07	R	250,000	no
B18-009-SB-4	1,4-Dioxane	0.095	R	24	no
B18-010-SB-1	1,4-Dioxane	0.11	R	24	no
	2,3,4,6-Tetrachlorophenol	0.072	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.072	R	210	no
	2,4-Dichlorophenol	0.072	R	2,500	no
	2,4-Dimethylphenol	0.072	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.072	R	5,800	no
	2-Methylphenol	0.072	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.072	R	250,000	no

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-013-SB-1	2,3,4,6-Tetrachlorophenol	0.068	R	25,000	no
	2,4,5-Trichlorophenol	0.17	R	82,000	no
	2,4,6-Trichlorophenol	0.068	R	210	no
	2,4-Dichlorophenol	0.068	R	2,500	no
	2,4-Dimethylphenol	0.068	R	16,000	no
	2,4-Dinitrophenol	0.17	R	1,600	no
	2-Chlorophenol	0.068	R	5,800	no
	2-Methylphenol	0.068	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.17	R	4	no
	Phenol	0.068	R	250,000	no
B18-013-SB-4	2,3,4,6-Tetrachlorophenol	0.073	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.073	R	210	no
	2,4-Dichlorophenol	0.073	R	2,500	no
	2,4-Dimethylphenol	0.073	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.073	R	5,800	no
	2-Methylphenol	0.073	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.15	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.073	R	250,000	no
B18-014-SB-1	2,3,4,6-Tetrachlorophenol	0.071	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.071	R	210	no
	2,4-Dichlorophenol	0.071	R	2,500	no
	2,4-Dimethylphenol	0.071	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.071	R	5,800	no
	2-Methylphenol	0.071	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.071	R	250,000	no
B18-017-SB-7.5	1,4-Dioxane	0.13	R	24	no
	Benzaldehyde	0.081	R	120,000	no
B18-018-SB-1	Benzaldehyde	0.069	R	120,000	no
B18-018-SB-7	1,4-Dioxane	0.22	R	24	no
	Benzaldehyde	0.09	R	120,000	no

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-022-SB-1	2,3,4,6-Tetrachlorophenol	0.073	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.073	R	210	no
	2,4-Dichlorophenol	0.073	R	2,500	no
	2,4-Dimethylphenol	0.073	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.073	R	5,800	no
	2-Methylphenol	0.073	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.073	R	250,000	no
B18-023-SB-1	2,3,4,6-Tetrachlorophenol	0.069	R	25,000	no
	2,4,5-Trichlorophenol	0.17	R	82,000	no
	2,4,6-Trichlorophenol	0.069	R	210	no
	2,4-Dichlorophenol	0.069	R	2,500	no
	2,4-Dimethylphenol	0.069	R	16,000	no
	2,4-Dinitrophenol	0.17	R	1,600	no
	2-Chlorophenol	0.069	R	5,800	no
	2-Methylphenol	0.069	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.17	R	4	no
	Phenol	0.069	R	250,000	no
B18-023-SB-6	2,3,4,6-Tetrachlorophenol	0.077	R	25,000	no
	2,4,5-Trichlorophenol	0.19	R	82,000	no
	2,4,6-Trichlorophenol	0.077	R	210	no
	2,4-Dichlorophenol	0.077	R	2,500	no
	2,4-Dimethylphenol	0.077	R	16,000	no
	2,4-Dinitrophenol	0.19	R	1,600	no
	2-Chlorophenol	0.077	R	5,800	no
	2-Methylphenol	0.077	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.15	R	41,000	no
	Pentachlorophenol	0.19	R	4	no
	Phenol	0.077	R	250,000	no
B18-024-SB-1	2,3,4,6-Tetrachlorophenol	0.072	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.072	R	210	no
	2,4-Dichlorophenol	0.072	R	2,500	no
	2,4-Dimethylphenol	0.072	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.072	R	5,800	no
	2-Methylphenol	0.072	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.072	R	250,000	no

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-025-SB-5	Benzaldehyde	0.1	R	120,000	no
B18-026-SB-1	1,4-Dioxane	0.12	R	24	no
	Benzaldehyde	0.072	R	120,000	no
B18-026-SB-4	1,4-Dioxane	0.19	R	24	no
	Benzaldehyde	0.084	R	120,000	no
B18-027-SB-7	1,4-Dioxane	0.11	R	24	no
	2,4-Dinitrophenol	0.2	R	1,600	no
	Bromomethane	0.0057	R	30	no
B18-028-SB-7	1,4-Dioxane	0.15	R	24	no
B18-029-SB-2	1,4-Dioxane	0.22	R	24	no
B18-029-SB-4	1,4-Dioxane	156	R	24	YES
B18-030-SB-1.5	1,4-Dioxane	0.13	R	24	no
B18-030-SB-6	1,4-Dioxane	0.17	R	24	no
	2,3,4,6-Tetrachlorophenol	0.086	R	25,000	no
	2,4,5-Trichlorophenol	0.22	R	82,000	no
	2,4,6-Trichlorophenol	0.086	R	210	no
	2,4-Dichlorophenol	0.086	R	2,500	no
	2,4-Dimethylphenol	0.086	R	16,000	no
	2,4-Dinitrophenol	0.22	R	1,600	no
	2-Chlorophenol	0.086	R	5,800	no
	2-Methylphenol	0.086	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.17	R	41,000	no
	Pentachlorophenol	0.22	R	4	no
	Phenol	0.086	R	250,000	no
B18-031-SB-6	1,4-Dioxane	0.15	R	24	no
B18-037-SB-1	1,4-Dioxane	0.1	R	24	no
	2,3,4,6-Tetrachlorophenol	0.069	R	25,000	no
	2,4,5-Trichlorophenol	0.17	R	82,000	no
	2,4,6-Trichlorophenol	0.069	R	210	no
	2,4-Dichlorophenol	0.069	R	2,500	no
	2,4-Dinitrophenol	0.17	R	1,600	no
	2-Chlorophenol	0.069	R	5,800	no
	Benzaldehyde	0.069	R	120,000	no
	Pentachlorophenol	0.17	R	4	no
B18-037-SB-5	1,4-Dioxane	0.15	R	24	no
	2,3,4,6-Tetrachlorophenol	0.074	R	25,000	no
	2,4,5-Trichlorophenol	0.19	R	82,000	no
	2,4,6-Trichlorophenol	0.074	R	210	no
	2,4-Dichlorophenol	0.074	R	2,500	no
	2,4-Dinitrophenol	0.19	R	1,600	no
	2-Chlorophenol	0.074	R	5,800	no
	Benzaldehyde	0.074	R	120,000	no
	Pentachlorophenol	0.19	R	4	no

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-038-SB-1	1,4-Dioxane	0.11	R	24	no
	2,3,4,6-Tetrachlorophenol	0.071	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.071	R	210	no
	2,4-Dichlorophenol	0.071	R	2,500	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.071	R	5,800	no
	Benzaldehyde	0.071	R	120,000	no
	Pentachlorophenol	0.18	R	4	no
B18-039-SB-4	1,4-Dioxane	0.13	R	24	no
	Bromomethane	0.0063	R	30	no
B18-040-SB-8	1,4-Dioxane	0.15	R	24	no
	Bromomethane	0.0076	R	30	no
B18-041-SB-1	1,4-Dioxane	0.11	R	24	no
	Benzaldehyde	0.073	R	120,000	no
B18-047-SB-1	1,4-Dioxane	0.094	R	24	no
	2,3,4,6-Tetrachlorophenol	0.072	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.072	R	210	no
	2,4-Dichlorophenol	0.072	R	2,500	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.072	R	5,800	no
	Pentachlorophenol	0.18	R	4	no
B18-047-SB-4	1,4-Dioxane	0.2	R	24	no
B18-048-SB-4	1,4-Dioxane	0.17	R	24	no
	2,3,4,6-Tetrachlorophenol	0.091	R	25,000	no
	2,4,5-Trichlorophenol	0.23	R	82,000	no
	2,4,6-Trichlorophenol	0.091	R	210	no
	2,4-Dichlorophenol	0.091	R	2,500	no
	2,4-Dimethylphenol	0.091	R	16,000	no
	2,4-Dinitrophenol	0.23	R	1,600	no
	2-Chlorophenol	0.091	R	5,800	no
	2-Methylphenol	0.091	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.18	R	41,000	no
	Pentachlorophenol	0.23	R	4	no
	Phenol	0.091	R	250,000	no

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-049-SB-1	2,3,4,6-Tetrachlorophenol	0.079	R	25,000	no
	2,4,5-Trichlorophenol	0.2	R	82,000	no
	2,4,6-Trichlorophenol	0.079	R	210	no
	2,4-Dichlorophenol	0.079	R	2,500	no
	2,4-Dinitrophenol	0.2	R	1,600	no
	2,4-Dinitrotoluene	0.079	R	7.4	no
	2-Chlorophenol	0.079	R	5,800	no
	3,3'-Dichlorobenzidine	0.079	R	5.1	no
	4-Nitroaniline	0.2	R	110	no
	Hexachlorocyclopentadiene	0.079	R	7.5	no
	Pentachlorophenol	0.2	R	4	no
B18-049-SB-4	1,4-Dioxane	0.12	R	24	no
B18-050-SB-1	2,3,4,6-Tetrachlorophenol	0.075	R	25,000	no
	2,4,5-Trichlorophenol	0.19	R	82,000	no
	2,4,6-Trichlorophenol	0.075	R	210	no
	2,4-Dichlorophenol	0.075	R	2,500	no
	2,4-Dimethylphenol	0.075	R	16,000	no
	2,4-Dinitrophenol	0.19	R	1,600	no
	2-Chlorophenol	0.075	R	5,800	no
	2-Methylphenol	0.075	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.15	R	41,000	no
	Benzaldehyde	0.075	R	120,000	no
	Pentachlorophenol	0.19	R	4	no
	Phenol	0.075	R	250,000	no
B18-050-SB-5	Benzaldehyde	0.079	R	120,000	no
B18-051-SB-1	2,3,4,6-Tetrachlorophenol	0.072	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.072	R	210	no
	2,4-Dichlorophenol	0.072	R	2,500	no
	2,4-Dimethylphenol	0.072	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.072	R	5,800	no
	2-Methylphenol	0.072	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.072	R	250,000	no

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-052-SB-1	2,3,4,6-Tetrachlorophenol	0.074	R	25,000	no
	2,4,5-Trichlorophenol	0.19	R	82,000	no
	2,4,6-Trichlorophenol	0.074	R	210	no
	2,4-Dichlorophenol	0.074	R	2,500	no
	2,4-Dimethylphenol	0.074	R	16,000	no
	2,4-Dinitrophenol	0.19	R	1,600	no
	2-Chlorophenol	0.074	R	5,800	no
	2-Methylphenol	0.074	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.15	R	41,000	no
	Pentachlorophenol	0.19	R	4	no
	Phenol	0.074	R	250,000	no
B18-057-SB-1	2,3,4,6-Tetrachlorophenol	0.072	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.072	R	210	no
	2,4-Dichlorophenol	0.072	R	2,500	no
	2,4-Dimethylphenol	0.072	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.072	R	5,800	no
	2-Methylphenol	0.072	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Benzaldehyde	0.072	R	120,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.072	R	250,000	no
B18-057-SB-4	1,4-Dioxane	0.17	R	24	no
	2,3,4,6-Tetrachlorophenol	0.089	R	25,000	no
	2,4,5-Trichlorophenol	0.22	R	82,000	no
	2,4,6-Trichlorophenol	0.089	R	210	no
	2,4-Dichlorophenol	0.089	R	2,500	no
	2,4-Dimethylphenol	0.089	R	16,000	no
	2,4-Dinitrophenol	0.22	R	1,600	no
	2-Chlorophenol	0.089	R	5,800	no
	2-Methylphenol	0.089	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.18	R	41,000	no
	Benzaldehyde	0.089	R	120,000	no
	Pentachlorophenol	0.22	R	4	no
	Phenol	0.089	R	250,000	no
B18-058-SB-1	2,3,4,6-Tetrachlorophenol	0.072	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.072	R	210	no
	2,4-Dichlorophenol	0.072	R	2,500	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.072	R	5,800	no
	Benzaldehyde	0.072	R	120,000	no
	Pentachlorophenol	0.18	R	4	no

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-059-SB-1	2,3,4,6-Tetrachlorophenol	0.071	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.071	R	210	no
	2,4-Dichlorophenol	0.071	R	2,500	no
	2,4-Dimethylphenol	0.071	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.071	R	5,800	no
	2-Methylphenol	0.071	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.071	R	250,000	no
B18-059-SB-7.5	1,4-Dioxane	0.19	R	24	no
	2,3,4,6-Tetrachlorophenol	0.096	R	25,000	no
	2,4,5-Trichlorophenol	0.24	R	82,000	no
	2,4,6-Trichlorophenol	0.096	R	210	no
	2,4-Dichlorophenol	0.096	R	2,500	no
	2,4-Dimethylphenol	0.096	R	16,000	no
	2,4-Dinitrophenol	0.24	R	1,600	no
	2-Chlorophenol	0.096	R	5,800	no
	2-Methylphenol	0.096	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.19	R	41,000	no
	Pentachlorophenol	0.24	R	4	no
B18-060-SB-1	2,3,4,6-Tetrachlorophenol	0.071	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.071	R	210	no
	2,4-Dichlorophenol	0.071	R	2,500	no
	2,4-Dimethylphenol	0.071	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.071	R	5,800	no
	2-Methylphenol	0.071	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.071	R	250,000	no
B18-066-SB-1	2,3,4,6-Tetrachlorophenol	0.071	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.071	R	210	no
	2,4-Dichlorophenol	0.071	R	2,500	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.071	R	5,800	no
	2-Methylphenol	0.071	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.071	R	250,000	no

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-066-SB-4	2,3,4,6-Tetrachlorophenol	0.078	R	25,000	no
	2,4,5-Trichlorophenol	0.2	R	82,000	no
	2,4,6-Trichlorophenol	0.078	R	210	no
	2,4-Dichlorophenol	0.078	R	2,500	no
	2,4-Dimethylphenol	0.078	R	16,000	no
	2,4-Dinitrophenol	0.2	R	1,600	no
	2-Chlorophenol	0.078	R	5,800	no
	2-Methylphenol	0.078	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.16	R	41,000	no
	Pentachlorophenol	0.2	R	4	no
	Phenol	0.078	R	250,000	no
B18-067-SB-1	2,3,4,6-Tetrachlorophenol	0.069	R	25,000	no
	2,4,5-Trichlorophenol	0.17	R	82,000	no
	2,4,6-Trichlorophenol	0.069	R	210	no
	2,4-Dichlorophenol	0.069	R	2,500	no
	2,4-Dimethylphenol	0.069	R	16,000	no
	2,4-Dinitrophenol	0.17	R	1,600	no
	2-Chlorophenol	0.069	R	5,800	no
	2-Methylphenol	0.069	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.17	R	4	no
	Phenol	0.069	R	250,000	no
B18-067-SB-4	1,4-Dioxane	0.12	R	24	no
	2,3,4,6-Tetrachlorophenol	0.077	R	25,000	no
	2,4,5-Trichlorophenol	0.19	R	82,000	no
	2,4,6-Trichlorophenol	0.077	R	210	no
	2,4-Dichlorophenol	0.077	R	2,500	no
	2,4-Dimethylphenol	0.077	R	16,000	no
	2,4-Dinitrophenol	0.19	R	1,600	no
	2-Chlorophenol	0.077	R	5,800	no
	2-Methylphenol	0.077	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.15	R	41,000	no
	Pentachlorophenol	0.19	R	4	no
	Phenol	0.077	R	250,000	no
B18-073-SB-1	2,3,4,6-Tetrachlorophenol	0.07	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.07	R	210	no
	2,4-Dichlorophenol	0.07	R	2,500	no
	2,4-Dimethylphenol	0.07	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.07	R	5,800	no
	2-Methylphenol	0.07	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.07	R	250,000	no

Table 14 - Parcel A6
Rejected Analytical Soil Results

Sample ID	Parameter	Result (mg/kg)	Flag	PAL (mg/kg)	Exceeds PAL?
B18-073-SB-5	2,3,4,6-Tetrachlorophenol	0.074	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.074	R	210	no
	2,4-Dichlorophenol	0.074	R	2,500	no
	2,4-Dimethylphenol	0.074	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.074	R	5,800	no
	2-Methylphenol	0.074	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.15	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.074	R	250,000	no
B18-074-SB-1	2,3,4,6-Tetrachlorophenol	0.071	R	25,000	no
	2,4,5-Trichlorophenol	0.18	R	82,000	no
	2,4,6-Trichlorophenol	0.071	R	210	no
	2,4-Dichlorophenol	0.071	R	2,500	no
	2,4-Dimethylphenol	0.071	R	16,000	no
	2,4-Dinitrophenol	0.18	R	1,600	no
	2-Chlorophenol	0.071	R	5,800	no
	2-Methylphenol	0.071	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.18	R	4	no
	Phenol	0.071	R	250,000	no
B18-074-SB-9	1,4-Dioxane	0.12	R	24	no
	Bromomethane	0.006	R	30	no
B18-076-SB-1	2,3,4,6-Tetrachlorophenol	0.069	R	25,000	no
	2,4,5-Trichlorophenol	0.17	R	82,000	no
	2,4,6-Trichlorophenol	0.069	R	210	no
	2,4-Dichlorophenol	0.069	R	2,500	no
	2,4-Dimethylphenol	0.069	R	16,000	no
	2,4-Dinitrophenol	0.17	R	1,600	no
	2-Chlorophenol	0.069	R	5,800	no
	2-Methylphenol	0.069	R	41,000	no
	3&4-Methylphenol(m&p Cresol)	0.14	R	41,000	no
	Pentachlorophenol	0.17	R	4	no
	Phenol	0.069	R	250,000	no

APPENDIX A

Table 1: Soil Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area/ Description	REC & Finding/ SWMU/ AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters: Soil Samples
Coke Battery (4)		Drawing 5014	Investigate potential impacts related to coke batteries (potential leaks or releases).	8	B18-001 through B18-008	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Coke Oven Lab		Drawing 5014	Investigate potential impacts related to the coke oven lab (potential leaks or releases).	2	B18-009 and B18-010	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Coke Wharf		Drawing 5014	Investigate potential impacts related to the coke wharf (potential leaks or releases).	2	B18-011 and B18-012	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Cooling Slag		Drawing 5114	Investigate potential impacts related to the cooling slag spray station (potential leaks or releases).	2	B18-013 and B18-014	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Disintegrator Building		Drawing 5014	Investigate potential impacts related to the disintegrator building (potential leaks or releases).	2	B18-015 and B18-016	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Electric Substation		Drawing 5014	Investigate potential impacts related to the electric substation (potential leaks or releases).	2	B18-017 and B18-018	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')

Table 1: Soil Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area/ Description	REC & Finding/ SWMU/ AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters: Soil Samples
Filter Building		Drawing 5014	Investigate potential impacts related to the filter building (potential leaks or releases).	2	B18-019 and B18-020	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Filters		Drawing 5014	Investigate potential impacts related to filters (potential leaks or releases).	2	B18-021 and B18-022	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Hot Slag Pits		Drawing 5114	Investigate potential impacts related to hot slag pits (potential leaks or releases).	2	B18-023 and B18-024	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Mechanical Maintenance Yard		Drawing 5014	Investigate potential impacts related to the mechanical maintenance yard (potential leaks or releases).	2	B18-025 and B18-026	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Mechanical Maintenance Shop		Drawing 5014	Investigate potential impacts related to the mechanical maintenance shop (potential leaks or releases).	2	B18-027 and B18-028	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Mechanical Maintenance Storage		Drawing 5014	Investigate potential impacts related to mechanical maintenance storage (potential leaks or releases).	2	B18-029 and B18-030	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')

Table 1: Soil Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area/ Description	REC & Finding/ SWMU/ AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters: Soil Samples
Mechanical Maintenance Office and Service Building		Drawing 5014	Investigate potential impacts related to the mechanical maintenance office and service building (potential leaks or releases).	2	B18-031 and B18-032	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Phoenix Recycle Area		Drawing 5114	Investigate potential impacts related to the Phoenix Recycle area (potential leaks or releases).	2	B18-033 and B18-034	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Pipe Shop		Drawing 5014	Investigate potential impacts related to the pipe shop (potential leaks or releases).	2	B18-035 and B18-036	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Tar Pump House/Oil Station		Drawing 5013	Investigate potential impacts related to the tar pump house and oil station (potential leaks or releases).	2	B18-037 and B18-038	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Pump House		Drawing 5014	Investigate potential impacts related to the pump house (potential leaks or releases).	2	B18-039 and B18-040	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')

Table 1: Soil Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area/ Description	REC & Finding/ SWMU/ AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters: Soil Samples
Shipyard Apparent Impoundment and Sparrows Point Shipyard	REC 25, Finding 277/Finding 285	DCC Figure	The Shipyard Impoundment is located north of the coal slip and coal yard and extends north to an area just east of the Shipyard's Graving Dock. This impoundment appears to have discharged process water, visible as dark plumes in aerial photographs, to the adjoining Bear Creek and Patapsco River surface water systems until at least 1952. The discharges associated with this impoundment suggest the potential release of petroleum products or other hazardous substances. The Sparrows Point Shipyard, a now adjoining property once part of the Tradepoint Atlantic property, had several spill incidents, at least seven of which lack cleanup documentation. Weaver Boos stated that it is unlikely that contaminants from spills in the Shipyard would have migrated onto the Tradepoint Atlantic property.	3	B18-041 through B18-043	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
No. 10 Fuel Storage Tank	REC 8B, Finding 202	DCC Figure	The No. 10 Fuel Oil Storage Tank and several surrounding historical ASTs may have been sources of historical oil releases according to the Phase I ESA. These oil releases had the potential to reach the surface waters of the adjoining coal slip and to cause migration of petroleum products through surface water, groundwater, or soil.	3	B18-044 through B18-046	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Repair Shop		Drawing 5014	Investigate potential impacts related to the repair shop (potential leaks or releases).	2	B18-047 and B18-048	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Service Building		Drawing 5013	Investigate potential impacts related to the service building (potential leaks or releases).	2	B18-049 and B18-050	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Settling Basin		Drawing 5014	Investigate potential impacts related to the settling basin (potential leaks or releases).	2	B18-051 and B18-052	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')

Table 1: Soil Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area/ Description	REC & Finding/ SWMU/ AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters: Soil Samples
Spray Pond		Drawing 5014	Investigate potential impacts related to the spray pond (potential leaks or releases).	2	B18-053 and B18-054	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Storage Shed		Drawing 5014	Investigate potential impacts related to the storage shed (potential leaks or releases).	2	B18-055 and B18-056	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Tar Storage Tanks (2)		Drawing 5014	Investigate potential impacts related to tar storage tanks (potential leaks or releases).	4	B18-057 through B18-060	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Belt Storage		Drawing 5014	MDE Request. Investigate potential impacts related to the Belt Storage building (potential leaks or releases).	1	B18-061	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
No. 1 Boiler House		Drawing 5014	Investigate potential impacts related to the No. 1 Boiler House (potential leaks or releases).	2	B18-066 and B18-067	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
No. 1 Pump Station		Drawing 5514	Investigate potential impacts related to the sanitary sewer pump station (potential leaks or releases).	2	B18-068 and B18-069	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')

Table 1: Soil Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area/ Description	REC & Finding/ SWMU/ AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters: Soil Samples
Turbo Generator		Drawing 5015	MDE Request. Investigate potential impacts related to any historical activities which may have occurred in the Turbo Generator building (potential leaks or releases).	1	B18-070	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Old No. 1 & No. 2 Gas Engines		Drawing 5015	MDE Request. Investigate potential impacts related to any historical activities which may have occurred in the Old No. 1 & No. 2 Gas Engine buildings (potential leaks or releases).	2	B18-071 and B18-072	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Parcel B18 Coverage			Investigate potential impacts related to any historical activities which may have occurred on the site (potential leaks or releases).	4	B18-073 through B18-076	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
Fuel Oil Storage Tank & Small ASTs		Drawing 5013	MDE Request. Investigate potential impacts related to the fuel oil storage tank or several smaller aboveground storage tanks (potential leaks or releases).	1	B18-077	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC*, SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
			Total	73				

Soil Borings Sampling Density Requirements (from **Worksheet 17 - Sampling Design and Rationale**)

No Engineered Barrier (16-40 acres): 1 boring per 1.5 acres with no less than 15.

Engineered Barrier (1-15 acres): 0.5 boring per acre with no less than 2.

No Engineered Barrier (34.8 acres) = **24 borings required, 70 completed**

Engineered Barrier (2.0 acres) = **2 borings required, 3 completed**

Parking/Roads (0.0 acres)

Intact Building Slabs (2.0 acres)

VOC - Volatile Organic Compounds (Target Compound List)

SVOCs - Semivolatile Organic Compounds (Target Compound List)

Metals - (Target Analyte List plus Hexavalent Chromium and Cyanide)

DRO/GRO - Diesel Range Organics/Gasoline Range

O&G - Oil and Grease

*VOCs are only collected if the PID reading exceeds 10 ppm

bgs - Below Ground Surface

Table 2: Groundwater Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area/ Description	REC & Finding/ SWMU/ AOC	Figure or Drawing of Reference	Condition of Existing Well	Number of Locations	Sample Locations	Boring Depth	Screen Interval	Analytical Parameters: Groundwater Samples†
Coke Battery		Drawing 5014	*N/A*	1	B18-007	Total depth of 7 feet below water table.	7 feet below water table to 3 feet above water table.	VOC, SVOC, Dissolved Metals, Dissovled hexavalent chromium, Total cyanide, DRO/GRO, O&G
No. 10 Fuel Storage Tank	REC 8B, Finding 202	Drawing 5013	*N/A*	1	B18-046	Total depth of 7 feet below water table.	7 feet below water table to 3 feet above water table.	VOC, SVOC, Dissolved Metals, Dissovled hexavalent chromium, Total cyanide, DRO/GRO, O&G
Belt Storage		Drawing 5014	*N/A*	1	B18-061	Total depth of 7 feet below water table.	7 feet below water table to 3 feet above water table.	VOC, SVOC, Dissolved Metals, Dissovled hexavalent chromium, Total cyanide, DRO/GRO, O&G
Turbo Generator		Drawing 5015	*N/A*	1	B18-070	Total depth of 7 feet below water table.	7 feet below water table to 3 feet above water table.	VOC, SVOC, Dissolved Metals, Dissovled hexavalent chromium, Total cyanide, DRO/GRO, O&G
Old No. 1 & No. 2 Gas Engines		Drawing 5015	*N/A*	2	B18-071 and B18-072	Total depth of 7 feet below water table.	7 feet below water table to 3 feet above water table.	VOC, SVOC, Dissolved Metals, Dissovled hexavalent chromium, Total cyanide, DRO/GRO, O&G
Parcel B18 Coverage			*N/A*	3	B18-074 through B18-076	Total depth of 7 feet below water table.	7 feet below water table to 3 feet above water table.	VOC, SVOC, Dissolved Metals, Dissovled hexavalent chromium, Total cyanide, DRO/GRO, O&G
Fuel Oil Storage Tank & Small ASTs		Drawing 5013	*N/A*	1	B18-077	Total depth of 7 feet below water table.	7 feet below water table to 3 feet above water table.	VOC, SVOC, Dissolved Metals, Dissovled hexavalent chromium, Total cyanide, DRO/GRO, O&G
			Total	10				

†Field measurements include pH, DO, ORP, conductivity, temperature.

Table 3: Sub-Slab Soil Gas Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area/ Description	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters:
Coke Batteries	Investigate potential impacts related to any historical activities which may have occurred within the coke battery area (potential leaks or releases).	2	B18-062 and B18-063	6 inches below bottom of concrete slab	6 inches below bottom of concrete slab	VOCs
Coke Wharf	Investigate potential impacts related to any historical activities which may have occurred within the coke wharf area (potential leaks or releases).	1	B18-064	6 inches below bottom of concrete slab	6 inches below bottom of concrete slab	VOCs
Building Coverage	Investigate potential impacts related to any unknown historical activities within the former Kinder Morgan Warehouse (potential leaks or releases).	1	B18-065	6 inches below bottom of concrete slab	6 inches below bottom of concrete slab	VOCs
	Total	4				

Soil Gas Sampling Density Requirements (from **Worksheet 17 - Sampling Design and Rationale**)

Sub-Slab: 1 sample collected per 20,000 ft ^{2}, with a minimum of 3 per building

Warehouse (75,000 ft^2) = **4 samples required, 4 completed**

APPENDIX B

ARM Group LLC
Engineers and Scientists

Boring ID: B18-001-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Glumac
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 10/17/2016
Weather	: 50s, sunny
Northing (US ft)	: 563278.65
Easting (US ft)	: 1458157.64

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
		8.0	B18-001-SB-1	(0-0.5') CONCRETE GRAVEL, loose, gray, dry, no plasticity, no cohesion	NA	
				(0.5-3') SAND, fine to medium, loose, dark brown to black, dry, no plasticity, no cohesion		
		9.3			SW	
	100	11.7				
			B18-001-SB-4	(3-3.5') BRICK and CONCRETE GRAVEL, loose, red and gray, dry, no plasticity, no cohesion	NA	
		10.2		(3.5-4') SAND with CONCRETE, fine to medium, loose, dry, no plasticity, no cohesion	SW	
				(4-7.5') CONCRETE, loose, dry, gray, no plasticity, no cohesion		
		8.3				
5		-			NA	
		10.7				Wet at 7.5' bgs
	80	-		(7.5-9') SAND, fine to medium, dark brown to black, wet, no plasticity, no cohesion		
		-			SW	
				(9-10') SAND with CONCRETE, black, wet, no plasticity, no cohesion		
		-			SW	
10				End of boring		

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to water.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-002-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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
Date	: 10/25/2016
Weather	: 60s, sunny, windy
Northing (US ft)	: 563255.93
Easting (US ft)	: 1457948.65

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	83	-	B18-002-SB-1	(0.0-2.3') Non-native GRAVELLY SAND, fine, loose, red, dry, no plasticity, no cohesion	SW/GW	Very fine grained metallic material (1.5-2.3' bgs)
		0.1				
		0.2		(2.3-3') SLAG and BRICK SAND and GRAVEL, loose, gray and yellow, dry, no plasticity, no cohesion	SW/GW	No water encountered
				End of boring		
5						

Total Borehole Depth: 3' bgs.
Boring terminated at 3' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-003-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/26/2016
Weather	: 50s, sunny
Northing (US ft)	: 563240.74
Easting (US ft)	: 1457802.85

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	100	0.1	B18-003-SB-1	(0-0.2') CONCRETE, dense, white, dry, no plasticity, no cohesion	NA	No water encountered
				(0.2-1.4') SLAG, very fine to fine SAND and GRAVEL, loose, brownish gray, dry, no plasticity, no cohesion	SW/GW	
		-		(1.4-2') BRICK, very coarse SAND to large GRAVEL, medium dense, yellow, dry, no plasticity, no cohesion	NA	
				End of boring		
5						

Total Borehole Depth: 2' bgs.
Boring terminated at 2' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-004-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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
Date	: 10/26/2016
Weather	: 50s, sunny
Northing (US ft)	: 563223.85
Easting (US ft)	: 1457592.57

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	100	0.0	B18-004-SB-1	(0-0.1') CONCRETE, loose, white, dry, no plasticity, no cohesion	NA	No water encountered
				(0.1-0.3') GRAVELLY SAND, fine to medium, loose, grayish brown, dry, no plasticity, no cohesion	SW/GW	
				(0.3-1') BRICK, coarse SAND to GRAVEL-sized, medium dense, yellow and very pale brown, dry, no plasticity, no cohesion	NA	
				End of boring		
5						

Total Borehole Depth: 1' bgs.
Boring terminated at 1' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-005-SB

Client	: EnviroAnalytics Group	Date	: 10/27/2016
ARM Project No.	: 150300M-14-3	Weather	: 50s, sunny
Project Description	: Sparrows Point - Parcel B18		
Site Location	: Sparrows Point, MD		
ARM Representative	: L. Perrin		
Checked by	: M. Replogle, E.I.T.	Northing (US ft)	: 563207.16
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1457485.15
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	100	1.3	B18-005-SB-1	(0-1') Non-native SILTY SAND with large BRICK GRAVEL, fine to coarse, medium dense, brown with yellow brick, dry, no plasticity, no cohesion	SM	No water encountered
				End of boring		
5						

Total Borehole Depth: 1' bgs.
Boring terminated at 1' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-006-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Glumac
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT
Date	: 10/17/2016
Weather	: 70s, sunny
Northing (US ft)	: 563191.69
Easting (US ft)	: 1457323.91

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	100	0.0 0.1	B18-006-SB-1	(0-2') SAND, fine to medium, loose, dark brown, dry, no plasticity, no cohesion	SW	No water encountered
				End of boring		
5						

Total Borehole Depth: 2' bgs.
Boring terminated at 2' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-007-SB/PZ

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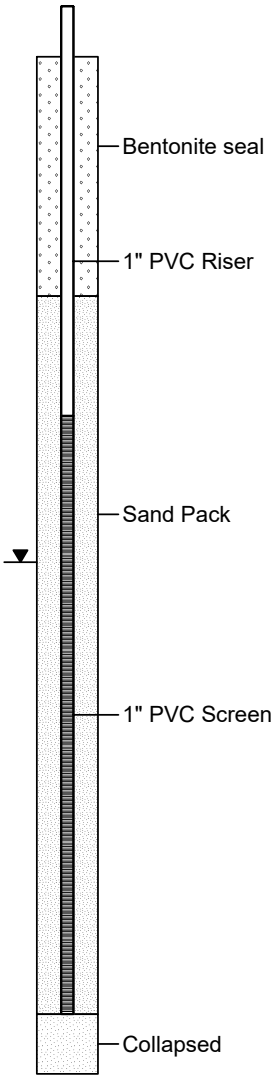
Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin/N. Kurtz
Checked by	: M. Replogle, E.I.T.
Drilling Company	: GSI/Allied Drilling Co.
Driller	: Don Marchese/Mike Waller
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 10/27/16&11/29/16
Piezometer Installation Date	: 11/29/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563158.34
Easting (US ft)	: 1456553.49
0-Hr DTW	: 11.62' TOC
48-Hr DTW	: 11.45' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	Blow Count	DESCRIPTION	USCS
0		-	B18-007-SB-1		(0-3') SILTY SAND, very fine, medium dense, brown to dark brown, dry, no plasticity, no cohesion	SM
		14.5				
	70	14.7				
		6.3	B18-007-SB-4		(3-4') SILTY SAND with small granules of COKE or COAL, very fine, medium dense, black, dry, no plasticity, no cohesion	SM
		2.3				NA
5		0.6			(4-5') BRICK, SAND-sized with some GRAVEL, medium dense, pale red, dry then moist at 4.5', no plasticity, no cohesion	
		2.8			(5-8.7') SLAG and COKE ASH, SILT to GRAVEL-sized, medium dense to dense, white, gray, and pale brown, moist, no plasticity, no cohesion	ML/GW
	100	2.2				
		0.6				
		-			(8.7-10') SILTY SAND with some GRAVEL and large BRICK COBBLES, fine to medium with some coarse grains, medium dense to dense, dark brown, moist then wet at 9', no plasticity, no cohesion	SM
10		-				
		-			(10-17') SLAG and COKE ASH, SILT to GRAVEL-sized, dense, white, gray, olive green, and pale brown, wet, no plasticity, no cohesion	ML/GW
	100	-				
		-				
		-				
15		-		20		
	100	-		22		
				56		
				16		
					End of Boring	
20						



Wet at 9' bgs

Material 15-17' bgs was logged on 11/29/2016 using a Dietrich D120 hollow stem auger rig with split spoons, diamond core, and roller bit managed by Mike Waller with Allied Drilling Co.

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: 3.00'
Riser: 0 - 6' bgs
Screen: 6 - 16' bgs [Slot Size: 0.010"]
Sand Pack: 4 - 16' bgs [Grain Size: WG #2]
Bentonite Seal: 0 - 4' bgs [Grain Size: 3/8" chips/Granular 30-50 Mesh]

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ARM Group LLC
Engineers and Scientists

Boring ID: B18-008-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/19/2016
Weather	: 70s, sunny
Northing (US ft)	: 563115.54
Easting (US ft)	: 1456520.07

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	87	0.0	B18-008-SB-1	(0-1.5') SANDY SILT with SLAG GRAVEL, soft, brown, dry, no plasticity, no cohesion	ML	No water encountered
				End of boring		
5						

Total Borehole Depth: 1.5' bgs.
Boring terminated at 1.5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-009-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/19/2016
Weather	: 70s, sunny
Northing (US ft)	: 563435.79
Easting (US ft)	: 1456388.30

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	80	-	B18-009-SB-1	(0-4') Non-native, SANDY SILT, soft, brown, dry, no plasticity, no cohesion	ML	
		41.2				
		16.2				
		20.0	B18-009-SB-4			
		3.9		(4-4.4') CONCRETE, medium dense, white, dry, no plasticity, no cohesion	NA	
5				(4.4-6.5') BRICK, SAND and GRAVEL-sized, loose, red and brown, dry, no plasticity, no cohesion	NA	No water encountered
	100	20.6				
				End of boring		
10						

Total Borehole Depth: 6.5' bgs.
Boring terminated at 6.5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-010-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/19/2016
Weather	: 70s, sunny
Northing (US ft)	: 563373.73
Easting (US ft)	: 1456395.95

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	60	-	B18-010-SB-1	(0-4') SILTY SAND with some GRAVEL, medium dense, brown, dry, no plasticity, no cohesion	SM	
		-				
		-				
		15.6				
				(4-6') BRICK with SILT, SAND and GRAVEL-sized, loose, black, pale brown, and red, moist, no plasticity, no cohesion		
		4.5				
5					NA	No water encountered
		7.5	B18-010-SB-6			
				End of boring		

Total Borehole Depth: 6' bgs.
Boring terminated at 6' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-011-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/25/2016
Weather	: 60s, sunny, windy
Northing (US ft)	: 563317.20
Easting (US ft)	: 1457826.01

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	80	0.0	B18-011-SB-1	(0-0.5') SLAG or possible CINDER BALLAST, very fine to fine, loose, black, dry, no plasticity, no cohesion	SW	SILT-sized metallic grains (0-0.5' and 1-4' bgs)
				(0.5-1') SLAG SAND and GRAVEL, medium dense, brownish gray, dry, no plasticity, no cohesion	SW/GW	
		0.1		(1-3.5') SLAG or possible CINDER BALLAST with trace WOOD fragments, very fine to fine, medium dense, dry, no plasticity, no cohesion	SW	
		0.0				No water encountered
		0.0	B18-011-SB-4	(3.5-4') SLAG or CINDER BALLAST with large WOOD fragments, SAND and GRAVEL-sized, loose, black, very moist, no plasticity, no cohesion	SW/GW	Very light petroleum odor 3.5-4' bgs
				End of boring		
5						

Total Borehole Depth: 4' bgs.
Boring terminated at 4' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-012-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/25/2016
Weather	: 60s, sunny
Northing (US ft)	: 563288.02
Easting (US ft)	: 1457622.87

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	80	-		(0-0.5') CONCRETE, COBBLE-sized, dense, white, dry, no plasticity, no cohesion	NA	
		1.1	B18-012-SB-1	(0.5-3') BRICK, medium to coarse SAND with large GRAVEL, loose to medium dense, brown and reddish yellow, moist, no plasticity, no cohesion	NA	
		1.7				
		0.3		(3-5') BRICK, small GRAVEL to COBBLE-sized, dense, yellow red and brown, wet, no plasticity, no cohesion	NA	Stormwater encountered 3-5' bgs
		0.4				
5				End of boring		
10						

Total Borehole Depth: 5' bgs.
Boring terminated at 5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-013-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/24/2016
Weather	: 70s, cloudy
Northing (US ft)	: 563670.27
Easting (US ft)	: 1457355.91

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	78	-	B18-013-SB-1	(0-2') Non-native SLAG SAND and GRAVEL, loose then medium dense at 1.2' bgs, gray and brown, dry, no plasticity, no cohesion	SW/GW	
		0.4				
		1.8		(2-4.5') SLAG SILT to GRAVEL, soft to medium dense, light gray, very moist grading to wet at 4' bgs, no plasticity, no cohesion	ML/GW	Possible stormwater encountered 4-5' bgs
		4.5	B18-013-SB-4			
		0.6				
				End of boring		
5						
10						

Total Borehole Depth: 4.5' bgs.
Boring terminated at 4.5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-014-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/24/2016
Weather	: 70s, sunny
Northing (US ft)	: 563689.42
Easting (US ft)	: 1457451.77

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	86	0.3	B18-014-SB-1	(0-3.5') SLAG SILT to GRAVEL, medium dense, brown, dry, no plasticity, no cohesion	ML/GW	
		1.2				
		0.2				
		0.6		(3.5-9') SLAG and BRICK, SILT to SAND-sized with some GRAVEL-sized, dense, brown, yellow and red, dry then wet at 7.5' bgs, no plasticity, no cohesion		
		0.5	B18-014-SB-5			
5						
	91	0.4			ML/SW	
		0.2				
		0.3				Wet at 7.5' bgs
		0.1				
				End of boring		
10						

Total Borehole Depth: 9' bgs.
Boring terminated at 9' bgs due to refusal and groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-015-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/21/2016
Weather	: 80s, sunny
Northing (US ft)	: 563785.59
Easting (US ft)	: 1457151.69

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	60	-	B18-015-SB-1	(0-3.5') SILTY SAND with SLAG GRAVEL, loose, brown and gray, dry, no plasticity, no cohesion	SM	
		-				
		1.0				
		0.8				
				(3.5-4.8') CONCRETE, dense, light gray, dry, no plasticity, no cohesion	NA	
		4.8				
5				(4.8-6') SILT, firm to very firm, strong brown with trace reddish yellow mottling, moist, low plasticity, cohesive	ML	
		-				
		-		(6-8.2') SANDY AND GRAVELLY CLAY, very soft, brown, saturated, low plasticity, cohesive	CL	
	60	3.7				Wet at 7.5' bgs
		12.6		(8.2-10') SLAG, large GRAVEL, grading to SAND-sized and small GRAVEL-sized, dense, light gray and brown, saturated, no plasticity, no cohesion	SW/GW	
10				End of boring		

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-016-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/21/2016
Weather	: 80s, sunny
Northing (US ft)	: 563790.04
Easting (US ft)	: 1457213.27

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B18-016-SB-1	(0-3') SLAG SAND and GRAVEL with SILT, loose, brown and gray, dry, no plasticity, no cohesion	SW/GW	
		-				
	50	0.6				
				(3-3.6') CONCRETE, medium dense, gray, dry, no plasticity, no cohesion	NA	
		11.7		(3.6-4') SLAG SAND and GRAVEL with SILT, loose, brown and gray, dry, no plasticity, no cohesion	SW/GW	Wet at 4' bgs
		0.8		(4-8.5') SILTY SAND with GRAVEL, medium dense, brown, wet, no plasticity, no cohesion	SM	
5						
		-				
		-				
	70	-				
		-				
				(8.5-8.9') SLAG SAND and GRAVEL with SILT, medium dense, brown and gray, wet, no plasticity	SW/GW	
					CL/GW	
				(8.9-9.1') CLAY with GRAVEL, hard, dark gray with trace reddish yellow, medium plasticity, cohesive	NA	
				(9.1-9.9') WOOD FRAGMENTS, large, wet		
10					SM	
				(9.9-10') SILTY SAND some GRAVEL, medium dense, dark brown, wet, no plasticity, no cohesion		
				End of boring		

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to groundwater.

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Engineers and Scientists

Boring ID: B18-017-SB

(page 1 of 1)

Client	: EnviroAnalytics Group	Date	: 10/19/2016
ARM Project No.	: 150300M-14-3	Weather	: 80s, sunny
Project Description	: Sparrows Point - Parcel B18		
Site Location	: Sparrows Point, MD		
ARM Representative	: L. Perrin		
Checked by	: M. Replogle, E.I.T.	Northing (US ft)	: 563439.48
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1456274.51
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	70	-	B18-017-SB-1	(0-2') SLAG GRAVEL with SAND, loose, grayish brown, dry, no plasticity, no cohesion	SW/GW	
		0.2				
		1.8		(2-4.5') SILTY SAND with intermittent areas of SANDY SILT and some BRICK, medium dense, dark brown, dry, no plasticity, no cohesion	SM	
		3.1				
		0.4		(4.5-10') SLAG SAND and GRAVEL, dense gray, light gray, and very pale brown, dry then wet at 7.5', no plasticity, no cohesion		Product present from 7.5-14' bgs Moderate to high viscosity, black, strong odor
5		-				
		4.2				
	76	11.6	B18-017-SB-7.5		SW/GW	Wet at 7.5' bgs
		245.9				
		167.4				
10		-		(10-14') SLAG SILT to GRAVEL, soft to medium dense, light gray, wet, no plasticity, no cohesion		Black dense product present from 7.5-14' bgs, heaviest from 8-10' bgs
	70	-			ML/GW	
		-				
		-				
15				End of boring		

Total Borehole Depth: 14' bgs.
Boring terminated at 14' bgs due to groundwater and piezometer installation.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-017-SB/PZ NEW

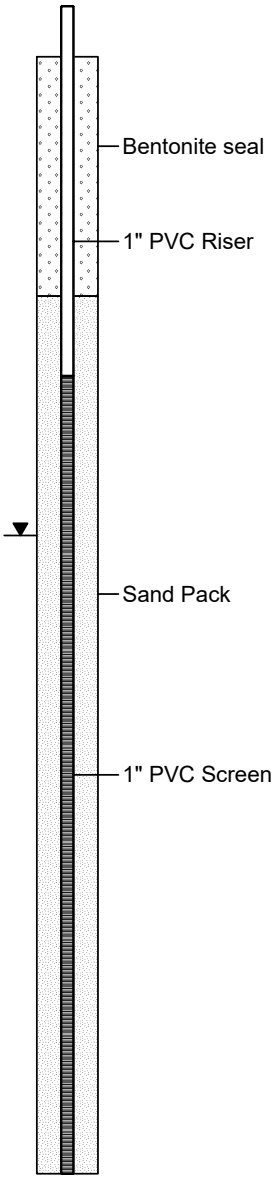
*Replacement of piezometer installed on 10/19/16

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, EIT
Drilling Company	: Allied
Driller	: Tim Moyer
Drilling Equipment	: Geoprobe 77DT

Soil Boring Installation Date	: 1/17/2019
Piezometer Installation Date	: 1/17/2019
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563440.45
Easting (US ft)	: 1456274.04
0-Hr DTW	: 9.27' TOC
48-Hr DTW	: 8.96' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	None	(0-5') BRICK and SLAG, SAND and GRAVEL-sized, medium dense, dark brown and very pale brown with red and gray, dry, non-plastic, non-cohesive	SW/GW	
	40	-				
		0.1				
		0.5				
5		1.3		(5-6') Non-native SAND, fine to medium, medium dense, yellowish red and dark brown, dry, non-plastic, non-cohesive	SW	
		1.1		(6-13') Non-native SAND and SLAG, SAND and GRAVEL-sized, dense, very light gray, dark gray, and green, dry then wet at 7' bgs, non-plastic, non-cohesive, possible coke ash	SW/GW	Wet at 7' bgs
	100	2.4				Very light product present from 7-8' bgs
		7.5				
		9.6				Moderate NAPL 9-10' bgs
10		0.5				Light to moderate NAPL 10-14' bgs with heavy sheen from 9-14' bgs
		2.8				
	100	16.0				
		0.2		(13-14') SAND, fine to medium, medium dense to dense, yellowish red and gray, wet, non-plastic, non-cohesive	SW	
				End of Boring		
15						



Boring terminated at 14' 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: 2.96'
Riser: 0 - 4' bgs
Screen: 4 - 14' bgs [Slot Size: 0.010"]
Sand Pack: 3 - 14' bgs [Grain Size: WG #2]
Bentonite Seal: 0 - 3' bgs [Grain Size: 3/8" chips]

ARM Group LLC
Engineers and Scientists

Boring ID: B18-018-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/19/2016
Weather	: 70s, sunny
Northing (US ft)	: 563308.62
Easting (US ft)	: 1456289.20

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	80	-	B18-018-SB-1	(0-1.2') SANDY SILT with some GRAVEL, soft, brown, dry, no plasticity, no cohesion	ML	Organic matter present
		3.1				
		9.4		(1.2-3.3') SLAG SAND-sized with some GRAVEL, medium dense, strong brown grading to dark brown, dry, no plasticity, no cohesion	SW	
		5.8		(3.3-7') SLAG, SILT to GRAVEL-sized, dense, white, light gray, and very pale brown, moist, no plasticity, no cohesion	ML/GW	Some cement-covered slag
5		1.9				
	50	-				No water encountered
		1000	B18-018-SB-7			
				End of boring		
10						

Total Borehole Depth: 7' bgs.
Boring terminated at 7' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-019-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/27/2016
Weather	: 50s, cloudy
Northing (US ft)	: 563835.99
Easting (US ft)	: 1457462.49

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0		-		(0-7') STOCKPILE MATERIAL		No surface sample collected due to stockpile material
		-				
		-				
		-				
		-				
5		-				
		-				
		17.6	B18-019-SB-8	(7-7.2') SILT with trace SAND, soft, dark brown to black, dry, no plasticity, no cohesion	ML	SLAG is light and has a metallic luster 7.2-10' bgs
	100	2.3		(7.2-10') SLAG, SAND and GRAVEL, fine to medium grained (SAND), medium dense, dark brown and dark gray, dry, no plasticity, no cohesion	SW/GW	
		2.9				
10		15.1	B18-019-SB-11	(10-11.4') SLAG SILT grading to SLAG SAND and GRAVEL, dense, grayish brown grading to light grayish brown, dry then moist at 11' +, no plasticity, no cohesion	ML/GW	
	100	0.4				No water encountered
				(11.4-11.5') SILTY SAND, very fine to fine grained, medium dense, dark brown to black, very moist, no plasticity, no cohesion	SM	
				End of boring		

Total Borehole Depth: 11.5' bgs.
Boring terminated at 11.5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-020-SB

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Client	: EnviroAnalytics Group	Date	: 10/27/2016
ARM Project No.	: 150300M-14-3	Weather	: 50s, cloudy
Project Description	: Sparrows Point - Parcel B18		
Site Location	: Sparrows Point, MD		
ARM Representative	: L. Perrin		
Checked by	: M. Replogle, E.I.T.	Northing (US ft)	: 563824.24
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1457510.08
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0		-		(0-11') STOCKPILE MATERIAL		No surface sample collected due to stockpile material
		-				
		-				
		-				
		-				
5		-				
		-				
		-				
		-				
10		-	B18-020-SB-11			
	75	1.6		(11-14') SILTY SAND with some SLAG and BRICK GRAVEL, dense, brown and yellow, dry then moist at 13' bgs, no plasticity, no cohesion	SM	Non-native fill material used macrocore
		0.6				No water encountered
		0.0	B18-020-SB-14			
15				End of boring		

Total Borehole Depth: 14' bgs.
Boring terminated at 14' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-021-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/25/2016
Weather	: 60s, sunny
Northing (US ft)	: 563890.30
Easting (US ft)	: 1457918.06

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0		-	B18-021-SB-1	(0-3.5') SILTY SAND with some SLAG and CONCRETE GRAVEL, soft, brown and yellow, dry, no plasticity, no cohesion	SM	
	70	0.1				
		2.8				
		0.2	B18-024-SB-4	(3.5-4.2') SLAG GRAVEL and SAND, medium dense, white and grayish brown, dry, no plasticity, no cohesion	SW/GW	
		0.0		(4.2-5.5') CLAY with SAND grading to SANDY CLAY with GRAVEL, very soft, yellowish red, wet, medium plasticity, cohesive	CL	Wet at 4.2' bgs
5	100	0.0				
				End of boring		

Total Borehole Depth: 5.5' bgs.
Boring terminated at 5.5' bgs due to refusal and groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-022-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/24/2016
Weather	: 70s, cloudy, windy
Northing (US ft)	: 563809.16
Easting (US ft)	: 1457930.43

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	100	0.9 1.0	B18-022-SB-1	(0-2') GRAVELLY SAND with SILT, very fine to fine grained, loose, brown to dark brown, dry, no plasticity, no cohesion	SW-SM	No water encountered
				End of boring		
5						

Total Borehole Depth: 2' bgs.
Boring terminated at 2' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-023-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/24/2016
Weather	: 70s, sunny
Northing (US ft)	: 563701.35
Easting (US ft)	: 1457527.09

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	80	-	B18-023-SB-1	(0-6') SILTY SAND with some SLAG GRAVEL, very fine grained, loose grading to medium dense, brown, reddish brown, and very dark gray, dry then moist from 4-5' bgs, no plasticity, no cohesion; with a very large SLAG COBBLE from 3.5-4' bgs	SM	
		0.4				
		1.8				
		0.9				
		0.6				
5			B18-023-SB-6			
	100	2.8		(6-8') SILTY SAND with some SLAG GRAVEL, very fine grained, medium dense; brown, red, grayish brown, and yellow; dry then wet at 7.5' bgs, no plasticity, no cohesion	SM	Light oxidation 6-6.5' bgs
		0.8				
		1.0				Wet at 7.5' bgs
				End of boring		
10						

Total Borehole Depth: 8' bgs.
Boring terminated at 8' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-024-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/24/2016
Weather	: 70s, sunny
Northing (US ft)	: 563628.43
Easting (US ft)	: 1457535.25

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	100	0.6	B18-024-SB-1	(0-3') Non-native SLAG SILT and SAND with some SLAG GRAVEL, loose then medium dense at 2' bgs, dry then moist at 2' bgs, no plasticity, no cohesion	ML/SW	
		0.7				
		3.8				
		3.4	B18-024-SB-4	(3-5') SLAG SILT, very firm, very dark gray, dry, no plasticity, no cohesion	ML	No water encountered
		1.2				
5				End of boring		

Total Borehole Depth: 5' bgs.
Boring terminated at 5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-025-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/19/2016
Weather	: 70s, sunny
Northing (US ft)	: 563216.57
Easting (US ft)	: 1456470.89

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	92	-	B18-025-SB-1	(0-3.6') Non-native SILTY SAND with trace SLAG GRAVEL and COAL, medium dense, brown grading to dark brown/black, dry, no plasticity, no cohesion	SM	
		1.5				
		0.7				
		0.8				
				(3.6-6') SLAG and BRICK, SILT to GRAVEL, medium dense to dense, white, pale brown, and light gray, dry to moist, no plasticity, no cohesion	ML/GW	Some cement-covered slag 3.5-6' bgs
		1.3	B18-025-SB-5			
5		0.0				
				(6-6.5') SLAG SAND and GRAVEL, dense, white, dry, no plasticity, no cohesion	SW/GW	
		1.6		(6.5-7') SILTY SAND with trace SLAG GRAVEL and COAL, medium dense, brown and dark brown, dry, no plasticity, no cohesion	SM	
	100			(7-8.8') SLAG and BRICK, SILT to GRAVEL, medium dense to dense, white, pale brown, and light gray, dry then wet at 7.5', no plasticity, no cohesion	ML/GW	Wet at 7.5' bgs
		23.5				
		0.5				
				(8.8-9') SAND, very fine to fine, medium dense, pale brown, wet, no plasticity, no cohesion	SP	
10				End of boring		

Total Borehole Depth: 9' bgs.
Boring terminated at 9' bgs due to refusal and groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-026-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/19/2016
Weather	: 70s, cloudy
Northing (US ft)	: 563302.91
Easting (US ft)	: 1456456.00

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0		-	B18-026-SB-1	(0-1.9') Non-native SILTY SAND with some GRAVEL, loose, brown, dry, no plasticity, no cohesion	SM	
		300.2				
	74	65.4		(1.9-3') SILTY SAND with WOOD fragments throughout and some GRAVEL, medium dense, dry, no plasticity, no cohesion	SM	Creosote-like odor from 1.9-3' bgs
		91.2	B18-026-SB-4	(3-7.5') SLAG and BRICK, SAND and GRAVEL-sized, medium dense, pale brown and light gray, dry, no plasticity, no cohesion	SW/GW	
		8.8				
5		31.9				
	100	25.6				No water encountered
		9.9				
				End of boring		
10						

Total Borehole Depth: 7.5' bgs.
Boring terminated at 7.5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-027-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Glumac
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 10/17/2016
Weather	: 70s, sunny
Northing (US ft)	: 563675.82
Easting (US ft)	: 1456404.32

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B18-027-SB-1	(0-0.25) CONCRETE, dense, light brown, no plasticity, no cohesion	NA	
				(0.25-2') SAND with some red BRICK, fine, loose, dry, no plasticity, no cohesion	SP	
		0.3				
	84	0.6		(2-4.5') SAND, fine, loose, dry, no plasticity, no cohesion	SP	
		23.8				
		1.9				
5				(4.5-5.5') SLAG, coarse, dense, gray, dry, no plasticity, no cohesion	GW	
		-		(5.5-10') SAND, fine, loose, dry then wet at 10', no plasticity, no cohesion	SP	Wet at 9' bgs
		241.9	B18-027-SB-7			
	80	162.6				
		52.7				
		-				
10				End of boring		

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-028-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/18/2016
Weather	: 70s, sunny
Northing (US ft)	: 563724.10
Easting (US ft)	: 1456398.56

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0				(0-0.3') CONCRETE GRAVEL, loose, white, dry, no plasticity, no cohesion	NA	
		-			NA	
			B18-028-SB-1.5	(0.3-0.5) BRICK GRAVEL, loose, red, dry, no plasticity, no cohesion		
		0.8		(0.5-4.5') SAND with SILT, very fine to fine with trace coarse, brown, dry, loose, no plasticity, no cohesion		Possible cinder ballast
	80	12.4			SW-SM	
		10.1				
		3.2				
5				(4.5-7') SLAG SAND and GRAVEL, loose, white and brown, moist, no plasticity, no cohesion		
		13.1			SW/GW	
		24.5	B18-028-SB-7			
	100			(7-9') SLAG SILT to GRAVEL-sized, medium dense, white, wet, no plasticity, no cohesion		Wet at 7' bgs Cement-covered slag 7-9' bgs
		-			ML/GW	
		-				
				End of boring		
10						

Total Borehole Depth: 9' bgs.
Boring terminated at 9' bgs due to refusal and groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-029-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/18/2016
Weather	: 70s, sunny
Northing (US ft)	: 563499.01
Easting (US ft)	: 1456304.94

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	100	44.9		(0-1) CONCRETE, medium dense, white, dry, no plasticity, no cohesion	NA	
		65.9	B18-029-SB-2	(1-1.8') CINDER BALLAST, loose, dark brown, dry, no plasticity, no cohesion	GW	
		58.2		(1.8-2.8) CONCRETE, medium dense, gray, dry, no plasticity, no cohesion	NA	
		239.6	B18-029-SB-4	(2.8-4') SANDY SILT and WOOD FRAGMENTS, soft, brown, moist, low plasticity, cohesive	ML	Strong odor 3-4' bgs Thick, black product with sheen No water encountered
				End of boring		
5						

Total Borehole Depth: 4' bgs.
Boring terminated at 4' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-030-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/18/2016
Weather	: 70s, sunny
Northing (US ft)	: 563573.05
Easting (US ft)	: 1456305.60

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0		-		(0-1.1') CONCRETE GRAVEL, loose, white, dry, no plasticity, no cohesion	NA	
			B18-030-SB-1.5			
		37.9		(1.1-4.6') SAND, very fine to fine, loose, brown, dry, no plasticity, no cohesion	SW	Possible cinder ballast 1.1-4.6' bgs
	78	6.0				
		4.8		(4.6-7') SLAG SAND and GRAVEL, loose, gray and white, moist, no plasticity, no cohesion	SW/GW	
		0.0				
5		24.6	B18-030-SB-6			Wet at 6' bgs
	100					
		12.2				
				End of boring		
10						

Total Borehole Depth: 7' bgs.
Boring terminated at 7' bgs due to refusal and groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-031-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/18/2016
Weather	: 70s, sunny
Northing (US ft)	: 563490.71
Easting (US ft)	: 1456479.45

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B18-031-SB-1	(0-1') Non-native SANDY SILT with GRAVEL, soft, brown, dry, no plasticity, no cohesion	ML	
		0.6		(1-2.8') CONCRETE SAND, loose, white, dry, no plasticity, no cohesion	NA	
	80	16.8		(2.8-3.1') SANDY SILT with GRAVEL, soft, brown, dry, no plasticity, no cohesion	ML	
		0.4		(3.1-3.8') SANDY SILT, soft, dark brown, dry, no plasticity, no cohesion	ML	
				(3.8-4') CLAY, soft, reddish yellow and brownish gray, moist, high plasticity, cohesive	CH	
		1.2		(4-4.7') CONCRETE, dense, light gray, dry, no plasticity, no cohesion	NA	
5				(4.7-6.5') SLAG SAND and GRAVEL-sized then SILT-sized 6-6.5', strong brown, very pale brown, and brown, dry then moist to very moist at 6', no plasticity, no cohesion		High oxidation 4.7-6.5' bgs
	100	45.3	B18-031-SB-6		SW/GW	
		12.4				No water encountered
				End of boring		
10						

Total Borehole Depth: 6.5' bgs.
Boring terminated at 6.5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-032-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/18/2016
Weather	: 70s, sunny
Northing (US ft)	: 563400.43
Easting (US ft)	: 1456491.26

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
		-		(0-1.5') CONCRETE, medium dense, white, dry, no plasticity, no cohesion	NA	
			B18-032-SB-1.5			
		-		(1.5-4.2') CINDER BALLAST, SILT to fine grained, loose, black, dry, no plasticity	NA	
	55	3.2				
		4.2				
		0.3		(4.2-5.3') CLAY, soft, pale brown, very moist, high plasticity, cohesive	CH	
5		6.3	B18-032-SB-6	(5.3-6.4') CINDER BALLAST, SILT to fine grained, loose, black, dry, no plasticity, no cohesion	CH	
		0.7		(6.4-7') SLAG and BRICK, SILT to GRAVEL-sized, medium dense, white, very pale brown, and yellow, very moist, no plasticity, no cohesion	ML/GW	
	100			(7-7.4') SLAG GRAVEL, medium dense, gray with some olive green, wet, no plasticity, no cohesion	GW	Wet at 7' bgs
		0.6		(7.4-9') SLAG and BRICK, SAND and GRAVEL-sized, medium dense, pale brown and light gray, wet, no plasticity, no cohesion	SW/GW	
		2.9				
				End of boring		
10						

Total Borehole Depth: 9' bgs.
Boring terminated at 9' bgs due to refusal and groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-033-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/21/2016
Weather	: 80s, sunny
Northing (US ft)	: 563549.72
Easting (US ft)	: 1456709.80

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	100	0.0	B18-033-SB-1	(0-1.5') SILTY SAND with GRAVEL SLAG, loose, light brown to brown, dry, no plasticity, no cohesion	SM	No water encountered Small piece of concrete in shoe-drillers could not push through
				End of boring		
5						

Total Borehole Depth: 1.5' bgs.
Boring terminated at 1.5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-034-SB/PZ

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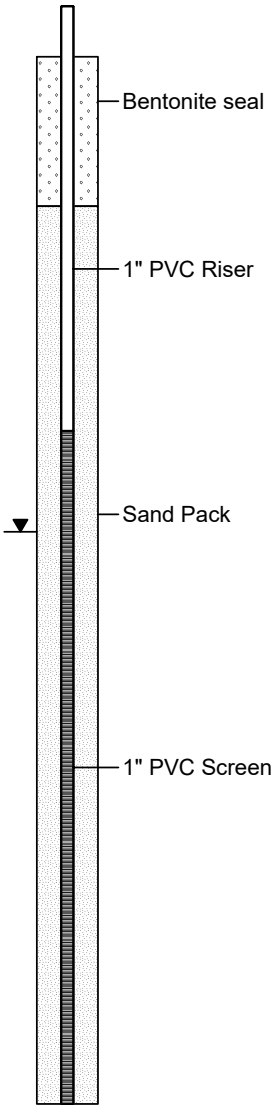
Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 10/21/2016
Piezometer Installation Date	: 10/21/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563582.50
Easting (US ft)	: 1456888.13
0-Hr DTW	: 9.29' TOC
48-Hr DTW	: 9.40' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS
0		-	B18-034-SB-1	(0-1.8') SANDY SILT with SLAG GRAVEL, soft, brown, dry, no plasticity, no cohesion	ML
		2.1			
				(1.8-2.2') CONCRETE, dense, light gray, dry, no plasticity, no cohesion	NA
	80	3.3		(2.2-6') SLAG, SAND and GRAVEL-sized with SILT, and with some large purple SLAG GRAVEL from 4-5' bgs, medium dense, gray, dry, no plasticity, no cohesion	SW/GW
		1.8			
		119.3	B18-034-SB-5		
5		14.3			
		20.2		(6-7.3') SLAG GRAVEL, dense, dark gray and black, saturated, no plasticity, no cohesion	GW
	100	36.4		(7.3-9.8') CLAY with SAND grading to SANDY CLAY, soft, dark gray, very moist to wet, medium plasticity, cohesive	CL
		15.1			
		12.4			
10		-		(9.8-11') SAND, fine to medium grained, medium dense, dark gray and brown, saturated, no plasticity, no cohesion	SW
		-		(11-15') CLAY, hard, reddish yellow and light grayish brown, dry, medium plasticity, cohesive	CL
	70	-			
		-			
		-			
15				End of Boring	



REMARKS
Wet at 6' bgs
Light to moderate product from 6-10' bgs with moderate viscosity and petroleum-like odor, amber brown
Light brown coating on outside of clay with none on inside from 11.5-13.5' bgs

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: 3.05'
Riser: 0 - 5' bgs
Screen: 4 - 14' bgs [Slot Size: 0.010"]
Sand Pack: 2 - 14' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 2' bgs [Grain Size: Granular 30-50 Mesh]

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ARM Group LLC
Engineers and Scientists

Boring ID: B18-035-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/25/2016
Weather	: 60s, sunny
Northing (US ft)	: 563579.44
Easting (US ft)	: 1457971.49

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	82	-	B18-035-SB-1	(0-2') GRAVELLY SILT with very fine SAND, firm, dark brown, dry, no plasticity, no cohesion	ML	
		108.0				
		217.3		(2-3.7') SILTY SAND with trace SLAG GRAVEL, very fine grained, dense, dark brown, dry, no plasticity, no cohesion	SM	
		49.5	B18-035-SB-4			
				(3.7-4') BRICK, medium dense, red, dry, no plasticity, no cohesion	GW	
		10.2		(4-4.8') SILTY SAND with trace SLAG GRAVEL, very fine grained, medium dense, dark brown, wet, no plasticity, no cohesion	SM	
5					CL	
		0.0		(4.8-5') CLAY, hard, grayish green and grayish brown, dry, low plasticity, cohesive	ML	
				(5-5.5') GRAVELLY SILT with very fine SAND, hard, dark brown, dry, no plasticity, no cohesion	SM	
		0.0		(5.5-6') SILTY SAND with trace SLAG GRAVEL, very fine grained, medium dense, dark brown, dry, no plasticity, no cohesion		
	100	0.0		(6-8') CLAY with SAND, hard, grayish green and grayish brown, dry, low plasticity, cohesive	CL	
		0.0		(8-10') SANDY CLAY, very soft, olive yellow with some pale green mottling throughout, moist then wet at 9' bgs, low plasticity, cohesive	CL	Wet at 9' bgs
		0.0				
10				End of Boring		

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-036-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/25/2016
Weather	: 60s, sunny
Northing (US ft)	: 563584.19
Easting (US ft)	: 1458017.92

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.0	B18-036-SB-1	(0-0.3') SLAG SAND and GRAVEL, loose, gray, dry, no plasticity, no cohesion	SW/GW	
				(0.3-1.3') SAND, very fine grained, medium dense, brown to dark brown, dry, no plasticity, no cohesion	SP	
		0.0		(1.3-3.2') SANDY SILT with SLAG GRAVEL, medium dense, brown with trace gray, moist to very moist, no plasticity, no cohesion	ML	
	100	0.1				
		0.0		(3.2-7') SANDY GRAVEL SLAG with SILT, medium dense, brown then gray from 5.5-7' bgs, wet, no plasticity, no cohesion	GW-GM	
		0.0	B18-036-SB-5			
5						
		0.0				
		0.0				
	100	0.0		(7-9') CLAY, hard, yellow, dry, low plasticity, cohesive	CL	Wet at 9' bgs
		0.0				
		0.0		(9-10') SAND, very fine to medium grained, dense, pale brown to yellow, saturated, no plasticity, no cohesion	SW	
10				End of Boring		

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-037-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/20/2016
Weather	: 70s, sunny
Northing (US ft)	: 563377.12
Easting (US ft)	: 1456144.19

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	60	-	B18-037-SB-1	(0-3.3') SANDY SILT with SLAG GRAVEL, soft, grayish brown with trace light gray, dry, no plasticity, no cohesion	ML	No water encountered
		-				
		59.4				
		44.6		(3.3-4.5') BRICK, SAND and GRAVEL-sized, medium dense, red, dry, no plasticity, no cohesion	NA	
		32.7	B18-037-SB-5	(4.5-5') SLAG GRAVEL, loose, light gray and brown with olive yellow, moist, no plasticity, no cohesion	GW	
5				End of boring		

Total Borehole Depth: 5' bgs.
Boring terminated at 5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-038-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/20/2016
Weather	: 70s, sunny
Northing (US ft)	: 563352.22
Easting (US ft)	: 1456163.58

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	60	-	B18-038-SB-1	(0-3.3') SILTY SAND with trace GRAVEL SLAG, fine to medium, loose, brown to dark brown, dry, no plasticity, no cohesion	SM	No water encountered
		14.4				
		3.4				
		0.8		(3.3-4') BRICK and CONCRETE, large GRAVEL with some SAND-sized grains, medium dense, red, pale brown, and brown, dry, no plasticity, no cohesion	NA	Trace wood fragments at 4' bgs
				End of boring		
5						

Total Borehole Depth: 4' bgs.
Boring terminated at 4' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-039-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Glumac
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 10/17/2016
Weather	: 70s, sunny
Northing (US ft)	: 563653.35
Easting (US ft)	: 1456402.27

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B18-039-SB-1	(0-1') CONCRETE, very dense, gray, dry, no plasticity, no cohesion	NA	
		2.2		(1-5') SAND with some CONCRETE, fine, dark brown and gray, dry, no plasticity, no cohesion		
	70	12.6			NA	
		303.3	B18-039-SB-4			
		1.9				
5				(5-8') SAND with CONCRETE, coarse, medium dense, light brown, tan and gray, dry, no plasticity, no cohesion		
		-				
		27.0			SW	
	76					
		21.8				
				(8-8.5') CONCRETE with some SAND, coarse, dense, gray, dry, no plasticity, no cohesion	NA	
		0.1		(8.5-9') SAND with CONCRETE, dense, tan and gray, wet, no plasticity, no cohesion	SW	Wet at 8.5' bgs
				End of boring		
10						

Total Borehole Depth: 9' bgs.
Boring terminated at 9' bgs due to refusal and water.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-040-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Glumac
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 10/17/2016
Weather	: 70s, sunny
Northing (US ft)	: 563630.46
Easting (US ft)	: 1456415.46

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	70	-	B18-040-SB-1	(0-3') SAND with SLAG, loose to dense, tan, dark brown, and gray, dry, no plasticity, no cohesion	SW	Organics present at 1.5' bgs
		2.5				
		0.0		(3-4') CLAY, medium dense, tan, dry, high plasticity, cohesive	CH	
		0.0		(4-6.5') SAND with SLAG, loose to dense, dark brown and gray, dry, no plasticity, no cohesion	SW	
5		1.0				
	100	2.7		(6.5-7') SANDSTONE and SAND, medium dense to loose, light brown and tan, dry, no plasticity, no cohesion	SW/GW	No water encountered
		16.1	B18-040-SB-8	(7-8') GRAVEL and SAND, medium dense, gray and tan, dry, no plasticity, no cohesion	SW/GW	
				End of boring		
10						

Total Borehole Depth: 8' bgs.
Boring terminated at 8' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-041-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/20/2016
Weather	: 80s, sunny
Northing (US ft)	: 563618.72
Easting (US ft)	: 1455630.71

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0		-	B18-041-SB-1	(0-1') ORGANIC SILT, soft, brown, dry, no plasticity, no cohesion	OL	
		13.2		(1-2.5') SILT with SAND and SLAG GRAVEL, soft, brown, dry, no plasticity, no cohesion	ML	
	76	5.6		(2.5-3') SILTY SAND with SLAG GRAVEL, medium dense, brown, dry, no plasticity, no cohesion	SM	
		0.3		(3-5.5') SANDY SLAG GRAVEL, dense, brown and gray, dry, no plasticity, no cohesion	SW/GW	
		2.3				
5		-		(5.5-8.5') CLAYEY SILT, hard grading to firm, grayish brown with some reddish yellow mottling, dry to moist, low plasticity, cohesive	ML	
		0.5	B18-041-SB-7.5			
	74	0.4				
		0.3		(8.5-9.2') SILT with SAND, soft, dark brown, very moist to wet, low plasticity, cohesive	ML	Wet at 9.2' bgs
		0.3		(9.2-10') SILTY SAND, medium dense, dark brown, saturated, no plasticity, no cohesion	SM	
10				End of boring		

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-042-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/21/2016
Weather	: 70s, cloudy
Northing (US ft)	: 563645.54
Easting (US ft)	: 1455766.08

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	78	-	B18-042-SB-1	(0.5-1.5') Non-native SANDY SILT with SLAG GRAVEL grading to SILT, firm to very firm, brown, dry, no plasticity, no cohesion	ML	
		35.8		(1.5-3.2') Non-native SLAG GRAVEL, small to medium, medium dense, brown and black, dry, no plasticity, no cohesion	GW	
		20.3				
		10.4		(3.2-4.6') Non-native SAND with SILT, very fine to fine grained, medium dense, brown, dry, no plasticity, no cohesion	SW-SM	
		17.1	B18-042-SB-5	(4.6-6.5') SANDY SILT, soft, dark brown, dry, no plasticity, no cohesion	SM	
5		-				
	74	7.6		(6.5-10') SLAG GRAVEL, small to medium, medium dense, brown and black, wet, no plasticity, no cohesion	GW	Wet at 7' bgs
		6.3				
		1.7				
		0.7				
10				End of boring		

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to water.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-043-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/21/2016
Weather	: 70s, sunny
Northing (US ft)	: 563690.09
Easting (US ft)	: 1455778.81

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.0	B18-043-SB-1	(0-2') GRAVELLY SILT, soft, brown and gray, dry, no plasticity, no cohesion	ML	Organic matter present
		0.1				
				(2-2.2') SAND, fine, loose, yellow, dry, no plasticity, no cohesion	SP	
	90	0.0		(2.2-3.2') SANDY SILT, soft, brown with trace yellow, dry, no plasticity grading to low plasticity, no cohesion grading to cohesive	ML	
		0.0		(3.2-3.6') SAND, fine, loose, yellow, dry, no plasticity, no cohesion	SP	
				(3.6-5.5') SILT with SAND grading to SANDY SILT, firm, brown, dry then moist from 4.5-5', low plasticity, cohesive	ML	
		0.0	B18-043-SB-5			
5		-		(5.5-9') SLAG GRAVEL with trace SILT, dense, dark gray and brown, saturated, no plasticity, no cohesion	GW	
		15.1				
	70	21.7				
		-				
				(9-9.2') SANDY SILT, soft, brown, saturated, no plasticity, no cohesion	ML	Wet at 6.5' bgs
		-		(9.2-10') SLAG GRAVEL, very small to medium, dense, gray and brown, saturated, no plasticity, no cohesion	GW	
10				End of boring		

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-044-SB/PZ

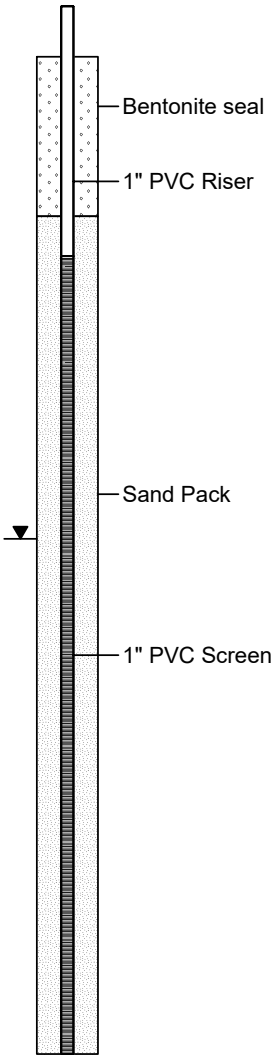
(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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	: 10/20/2016
Piezometer Installation Date	: 10/20/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563460.13
Easting (US ft)	: 1455863.71
0-Hr DTW	: 4.72' TOC
48-Hr DTW	: 9.14' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	92	30.0 38.1 90.2 344.9 259.9		(0-10') SLAG, GRAVEL and SAND-sized, dense, dark gray, dark brown, black, and olive-gray, moist then wet at 7', no plasticity, no cohesion	SW/GW	Product present from 0-10' bgs High viscosity, black, moderate odor, DNAPL
5	90	140.2 71.8 47.8 5.9 36.1				Wet at 5.5' bgs
10	0	- - -		(10-12.5') NO RECOVERY	-	
15				End of Boring		



Boring terminated at 12.5' 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: 3.1'
Riser: 0 - 2.5' bgs
Screen: 2.5 - 12.5' bgs [Slot Size: 0.010"]
Sand Pack: 2 - 12.5' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 2' bgs [Grain Size: Granular 30-50 Mesh]

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ARM Group LLC
Engineers and Scientists

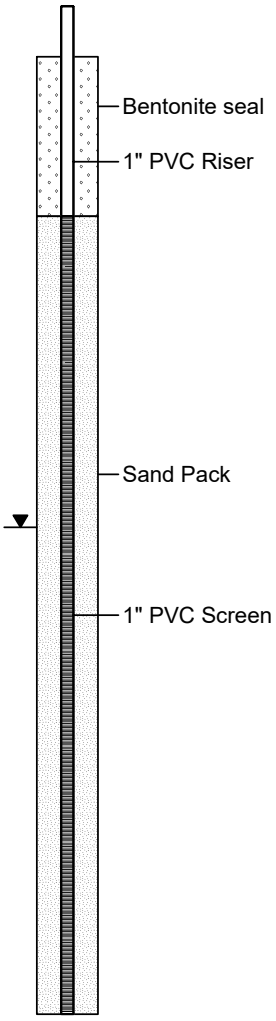
Boring ID: B18-045-SB/PZ

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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	: 10/20/2016
Piezometer Installation Date	: 10/20/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563501.71
Easting (US ft)	: 1455910.74
0-Hr DTW	: 7.81' TOC
48-Hr DTW	: 8.90' TOC

1.28 ft of LNAPL detected at 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		98.9		(0-9.2') SLAG, SAND and GRAVEL-sized, with some large olive green SLAG GRAVEL, dense, grayish brown and black, moist then wet at 5' bgs, no plasticity, no cohesion		Product present from 0-10' bgs High viscosity, black, strong odor, DNAPL, immiscible
		174.9				
	72	133.0				
		257.4				
		236.4			SW/GW	
5		-				Wet at 5' bgs
		34.4				
	84	95.2				
		71.2				
		64.5		(9.2-10') SLAG, SAND and GRAVEL-sized with SILT, dense, black and dark brown, wet, no plasticity, no cohesion	SW/GW	
10		-		(10-12') NO RECOVERY- Drillers stated material was too "sloppy" to recover		
	0				-	
		-				
				End of Boring		
15						



Boring terminated at 12' 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'
Riser: 0 - 2' bgs
Screen: 2 - 12' bgs [Slot Size: 0.010"]
Sand Pack: 2 - 12' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 2' bgs [Grain Size: Granular 30-50 Mesh]

ARM Group LLC
Engineers and Scientists

Boring ID: B18-046-SB/PZ

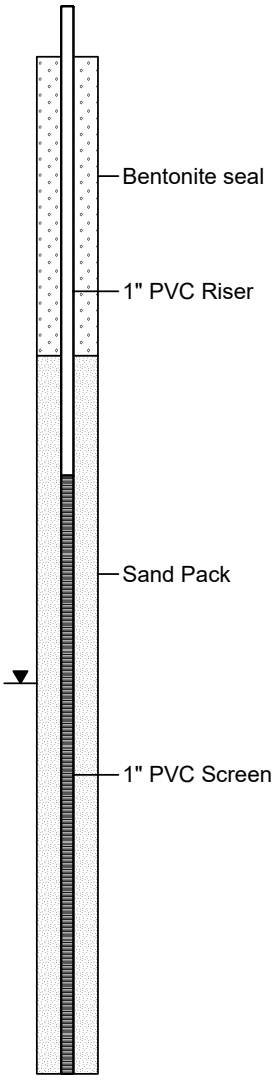
(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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	: 10/26/2016
Piezometer Installation Date	: 10/26/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563301.25
Easting (US ft)	: 1456053.72
0-Hr DTW	: 12.60' TOC
48-Hr DTW	: 13.67' TOC

Trace NAPL detected at 0 and 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	100	3.4	B18-046-SB-1	(0-1') SANDY SILT with GRAVEL, medium dense, grayish brown, dry, no plasticity, no cohesion	ML	
		8.8		(1-1.8') SILT, hard, light greenish gray, pale brown, and brown mottling, dry, low plasticity, cohesive	ML	
		370.4		(1.8-3.5') SILTY SAND with very small GRAVEL, fine to coarse, light olive brown, dry, no plasticity, no cohesion	SM	Light product present from 1.8-3.5' bgs
		232.8				
		184.0		(3.5-6') SLAG, SAND AND GRAVEL-sized, with SILT, medium dense, white and light gray, dry, no plasticity, no cohesion	SW/GW	Moderate product with moderate to strong odor from 3.5-5' bgs
5	60	-				
		-		(6-10') SLAG GRAVEL, dense, light gray, dry then moist 9.5-9.7', saturated at 9.8', no plasticity, no cohesion	GW	Light product from 7-7.5' bgs
		295.7	B18-046-SB-8			
		149.2				
		134.6				Wet at 9.8' bgs
10	0	-		(10-17') NO RECOVERY from 10-15' bgs, continued without liner from 15-17' bgs	-	
		-				
		-				
		-				
		-				
15	0	-				
		-				
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: 3.20'
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: 3/8" chips/Granular 30-50 Mesh]

ARM Group LLC
Engineers and Scientists

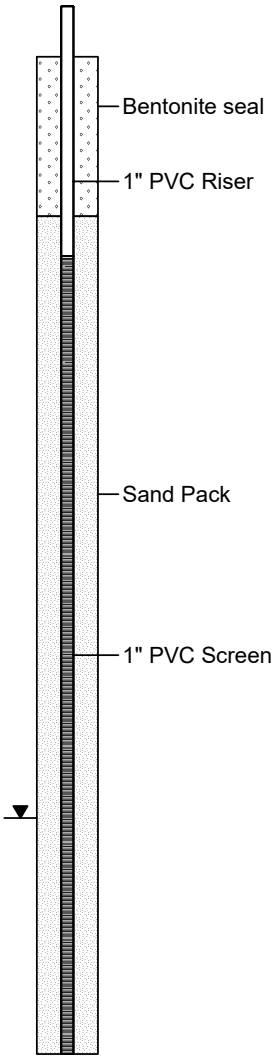
Boring ID: B18-047-SB/PZ

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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	: 10/18/2016
Piezometer Installation Date	: 10/18/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563541.54
Easting (US ft)	: 1456367.34
0-Hr DTW	: 12.63' TOC
48-Hr DTW	: 12.74' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B18-047-SB-1	(0-2.5') SLAG, SAND-sized, medium dense, light grayish brown, dry, no plasticity, no cohesion	SW	
		16.1				
	70	17.1		(2.5-4') CINDER BALLAST with large SLAG, GRAVEL-sized, dark brown and dark gray, moist, no plasticity, no cohesion	SW/GW	Cement covered SLAG from 3-4' bgs
		15.2	B18-047-SB-4			Wet at 4' bgs
		235.5		(4-12') SLAG, GRAVEL-sized with SILT, medium dense, brown, dark brown, olive green, and black, wet, no plasticity, no cohesion	GW/ML	Product present from 4-9' bgs Moderately thick with moderate odor; immiscible
5		-				
		-				
	100	-				
		-				
		-				
10		-				
	100	-				
				(12-12.5') SLAG, SILT to SAND-sized, dense, gray and white, wet, no plasticity, no cohesion	ML/SW	
				End of Boring		
15						



Boring terminated at 12.5' 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: 3.20'
Riser: 0 - 2.5' bgs
Screen: 2.5 - 12.5' bgs [Slot Size: 0.010"]
Sand Pack: 2 - 12.5' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 2' bgs [Grain Size: 3/8" chips/Granular 30-50 Mesh]

ARM Group LLC
Engineers and Scientists

Boring ID: B18-048-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/18/2016
Weather	: 70s, sunny
Northing (US ft)	: 563503.22
Easting (US ft)	: 1456380.23

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0		-		(0-1') CONCRETE, dense, white, dry, no plasticity, no cohesion	NA	
		1.8	B18-048-SB-2	(1-2.6') SANDY SILT with trace GRAVEL SLAG, soft, dark brown, dry, no plasticity, no cohesion	ML	
	84	18.6		(2.6-8.5') SLAG, SILT to GRAVEL-sized, medium dense, white and very pale brown, dry then wet at 7.5', no plasticity, no cohesion		Intermittent areas of cement-covered slag 2.6-7.5' bgs
		37.2	B18-048-SB-4			
		7.3				
5		19.1			ML/GW	
	100	42.0				
		22.0				Wet at 7.5' bgs
		53.9				
				End of boring		
10						

Total Borehole Depth: 8.5' bgs.
Boring terminated at 8.5' bgs due to water.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-049-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/20/2016
Weather	: 70s, sunny
Northing (US ft)	: 563291.37
Easting (US ft)	: 1456152.96

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	70	-	B18-049-SB-1	(0-2') Non-native SILTY SAND with some GRAVEL, medium dense, brown to dark brown, dry, no plasticity, no cohesion	SM	No water encountered
		4.1				
		15.4		(2-2.5') BRICK GRAVEL, flat and elliptical, pale brown, dry, no plasticity, no cohesion	NA	
				(2.5-3.5') SLIT with SAND, medium dense, dark brown to black, dry, no plasticity, no cohesion	ML	
		15.6	B18-049-SB-4	(3.5-5') SLAG SAND and GRAVEL, brown and gray with trace pale green, dry then moist at depth, no plasticity, no cohesion	SW/GW	
		13.8				
5				End of boring		

Total Borehole Depth: 5' bgs.
Boring terminated at 5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-050-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/20/2016
Weather	: 70s, sunny
Northing (US ft)	: 563264.71
Easting (US ft)	: 1456180.37

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	70	-	B18-050-SB-1	(0-1') SANDY SILT with some GRAVEL SLAG, medium dense, brown, dry, no plasticity, no cohesion	ML	
		0.2		(1-3') BRICK, SAND-sized to COBBLES, medium dense, red, brown, and pale brown, wet, no plasticity, no cohesion	SW/GW	Pobable stormwater 2.5-5' bgs
		1.6				
		1.2		(3-4.1') SILT with SAND, medium dense, dark brown to black, dry, no plasticity, no cohesion	ML	
		4.9	B18-050-SB-5	(4.1-5') SLAG, SAND and GRAVEL, medium dense, brown and gray with trace green, dry then moist at depth, no plasticity, no cohesion	SW/GW	No water encountered
5				End of boring		
10						

Total Borehole Depth: 5' bgs.
Boring terminated at 5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-051-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/24/2016
Weather	: 70s, cloudy, windy
Northing (US ft)	: 563725.14
Easting (US ft)	: 1457776.08

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	55	0.2	B18-051-SB-1	(0-1.3') SANDY SILT with small to large GRAVEL SLAG, soft, grayish brown, dry, no plasticity, no cohesion	ML	No water encountered
		0.0		(1.3-2') SILTY SAND with small to large GRAVEL SLAG, loose, brown, dry, no plasticity, no cohesion	SM	
				End of boring		
5						

Total Borehole Depth: 2' bgs.
Boring terminated at 2' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-052-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/24/2016
Weather	: 70s, cloudy, windy
Northing (US ft)	: 563758.56
Easting (US ft)	: 1457768.18

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	100	1.7	B18-052-SB-1	(0-3') SLAG SILT to SAND with some GRAVEL, medium dense, brown with trace gray, dry, no plasticity, no cohesion	ML/SW	No water encountered
		2.3				
		1.9				
				End of boring		
5						

Total Borehole Depth: 3' bgs.
Boring terminated at 3' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-053-SB

(page 1 of 1)

Client	: EnviroAnalytics Group	Date	: 10/25/2016
ARM Project No.	: 150300M-14-3	Weather	: 60s, sunny
Project Description	: Sparrows Point - Parcel B18		
Site Location	: Sparrows Point, MD		
ARM Representative	: L. Perrin		
Checked by	: M. Replogle, E.I.T.	Northing (US ft)	: 563869.82
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1457970.95
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	92	0.2 0.8 0.1 0.4	B18-053-SB-1	(0-5') Non-native SILTY SAND with trace GRAVEL, very fine grained, loose to medium dense, dry then moist at 4' bgs, no plasticity, no cohesion	SM	
		0.5	B18-052-SB-5			
5	87	0.0 0.0		(5-6.2') CLAY, soft, strong brown, very moist to wet, low plasticity, cohesive	CL	
				(6.2-6.5') SLAG GRAVEL with CLAY, large, medium dense, gray and brown, wet, no plasticity, no cohesion	GW-GC	Wet at 6.2' bgs
				End of boring		
10						

Total Borehole Depth: 6.5' bgs.
Boring terminated at 6.5' bgs due to refusal and water.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-054-SB

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Client	: EnviroAnalytics Group	Date	: 10/25/2016
ARM Project No.	: 150300M-14-3	Weather	: 60s, sunny
Project Description	: Sparrows Point - Parcel B18		
Site Location	: Sparrows Point, MD		
ARM Representative	: L. Perrin		
Checked by	: M. Replogle, E.I.T.	Northing (US ft)	: 563805.01
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1457978.93
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B18-054-SB-1	(0-5') Non-native SANDY SILT with SLAG GRAVEL, soft, brown, dry then moist at 3.5' bgs, no plasticity, no cohesion		
		0.3				
	78	0.3			ML	
		0.0				No water encountered
		0.0	B18-054-SB-5			
5				End of boring		

Total Borehole Depth: 5' bgs.
Boring terminated at 5' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-055-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/25/2016
Weather	: 60s, sunny
Northing (US ft)	: 563760.09
Easting (US ft)	: 1457946.21

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	100	0.6 0.8 0.1 - -	B18-055-SB-1	(0-7') SLAG SILT to GRAVEL, medium dense then dense from 3-5' bgs, brown and grayish brown then dark brown at 5' bgs, dry then very moist at 5' bgs, no plasticity, no cohesion	ML/GW	
5			B18-055-SB-5			
	100	- 0.0 - -		(7-10') SANDY CLAY, hard, yellowish brown and brown, dry, low plasticity, cohesive	CL	
10		-	B18-055-SB-10			Wet at 10' bgs
	100	- - - - -		(10-11') CLAYEY SAND, fine grained, medium dense, dark brown, saturated, no plasticity, no cohesion	SC	
				(11-13.5') SAND, fine to medium grained, dense; dark brown, strong brown, and yellowish red; saturated, no plasticity, no cohesion	SW	
				(13.5-15') CLAY, hard, pale brown and grayish brown, moist, medium plasticity, cohesive	CL	
15				End of boring		

Total Borehole Depth: 15' bgs.
Boring terminated at 15' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-056-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/25/2016
Weather	: 60s, sunny, windy
Northing (US ft)	: 563718.29
Easting (US ft)	: 1457944.48

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	100	0.0	B18-056-SB-1	(0-1') Non-native SILTY SAND with SLAG GRAVEL, loose, brown, dry, no plasticity, no cohesion	SM	One large COBBLE-sized piece of metal No water encountered
				End of boring		
5						

Total Borehole Depth: 1' bgs.
Boring terminated at 1' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-057-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/19/2016
Weather	: 80s, sunny
Northing (US ft)	: 563581.19
Easting (US ft)	: 1456141.13

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0		-	B18-057-SB-1	(0-0.8') SILTY SAND with SLAG GRAVEL, medium dense, brown and gray, dry, no plasticity, no cohesion	SM	
		4.6		(0.8-2.9') SANDY SLAG GRAVEL, medium dense, brown and gray, dry, no plasticity, no cohesion	SW/GW	
	80	20.1				
		26.6	B18-057-SB-4	(2.9-7.5') SLAG and BRICK, SILT to GRAVEL-sized, dense, light gray, white, and very pale brown, dry 0-4', very moist 4-5', saturated 5-7.5', no plasticity, no cohesion	ML/GW	Wet at 5' bgs
		19.0				
5		276.2				
	100	378.4				
		376.6				
				End of boring		
10						

Total Borehole Depth: 7.5' bgs.
Boring terminated at 7.5' bgs due to groundwater and refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-058-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/20/2016
Weather	: 70s, sunny
Northing (US ft)	: 563440.33
Easting (US ft)	: 1456159.60

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	75	7.9	B18-058-SB-1	(0-0.5') SILTY SAND with SLAG GRAVEL, loose, brown, dry, no plasticity, no cohesion	SM	No water encountered
		16.3		(0.5-2') SANDY SILT grading to SILTY SAND, soft grading to loose, brown, dry then moist 1.5-2', no plasticity, no cohesion	ML to SM	
				End of boring		
5						

Total Borehole Depth: 2' bgs.
Boring terminated at 2' bgs due to refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-059-SB/PZ

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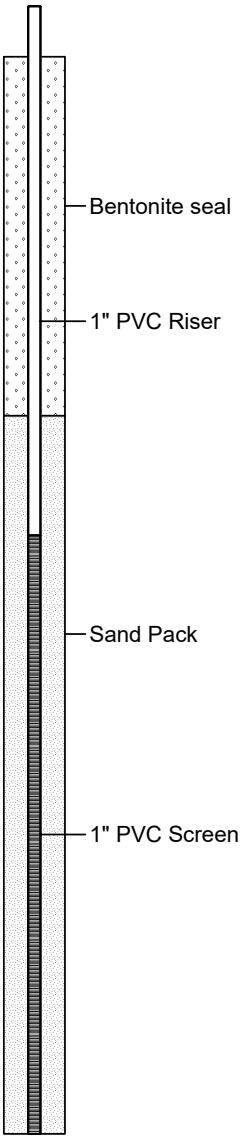
Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 10/18/2016
Piezometer Installation Date	: 10/18/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563560.53
Easting (US ft)	: 1456451.18
0-Hr DTW	: DRY
48-Hr DTW	: DRY

No DNAPL or LNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B18-059-SB-1	(0-2.5') SLAG, SILT to SAND-sized, medium dense to soft, brown, dry, no plasticity, no cohesion	ML/SW	
		3.5				
	90	64.9		(2.5-3') SILT, hard, dark gray and black, dry, no plasticity, no cohesion	ML	Tar-like substance or NAPL, dark brown, light odor, PID reading is 76.7
		11.9		(3-9') SLAG and BRICK, SILT to GRAVEL-sized, dense, brown, dark gray, white, and very pale brown, dry then wet at 7.5', no plasticity, no cohesion		
		5.4				
5		34.8			ML/GW	
		14.2				
	100		B18-059-SB-7.5			
		677.4				Wet at 7.5' bgs
		122.9				
				End of Boring		
10						



Boring terminated at 9' 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: 3.30'
Riser: 0 - 4' bgs
Screen: 4 - 9' bgs [Slot Size: 0.010"]
Sand Pack: 3 - 9' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 3' bgs [Grain Size: Granular 30-50 Mesh]

ARM Group LLC
Engineers and Scientists

Boring ID: B18-060-SB

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Client	: EnviroAnalytics Group	Date	: 10/17/2016
ARM Project No.	: 150300M-14-3	Weather	: 70s, sunny
Project Description	: Sparrows Point - Parcel B18		
Site Location	: Sparrows Point, MD		
ARM Representative	: L. Glumac		
Checked by	: M. Replogle, E.I.T.	Northing (US ft)	: 563664.71
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1456438.91
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	78	-	B18-060-SB-1	(0-2') SAND with some GRAVEL, fine, loose, brown, dry, no plasticity, no cohesion	SW	
		1.4				
		4.5		(2-5.5') SAND, fine, with some CONCRETE GRAVEL, loose, dry, no plasticity, no cohesion	SW	
		1.8				
		0.2	B18-060-SB-5			
5		-		(5.5-10') SLAG, coarse, with some SAND-sized, loose, black, dry then wet at 9', no plasticity, no cohesion	GW	Wet at 9' bgs
	70	0.8				
		0.6				
		0.3				
		-				
10				End of boring		

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-061-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/26/2016-10/27/2016
Weather	: 50s, sunny
Northing (US ft)	: 563243.87
Easting (US ft)	: 1456297.97

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B18-061-SB-1	(0-1.5') Non-native GRAVELLY SAND with SILT, loose, brown, dry, no plasticity, no cohesion	SW/GW	trace organic matter present Coal-like granules throughout 1.5-2.5' bgs
		106.5		(1.5-2.5') SANDY SILT grading to SILTY SAND, firm to medium dense, dark brown, dry, no plasticity, no cohesion	ML to SM	
		13.4		(2.5-15') SLAG and ASH, SILT to COBBLE-sized, white, pale yellow, and very light gray, dry then wet at 9', no plasticity, no cohesion		
		10.3	B18-061-SB-4			
		6.3				
5	80	-				
		3.0				
		2.1				
		0.6			ML/GW	Wet at 9' bgs
		0.1				
10	100	-				
		-				
		-				
		-				
		-				
15		-		(15-16') No recovery; drillers could not recover sleeve		
				End of boring		
20						

Total Borehole Depth: 16' bgs.
Boring terminated at 16' bgs due to groundwater and piezometer installation.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-061-SB/PZ NEW

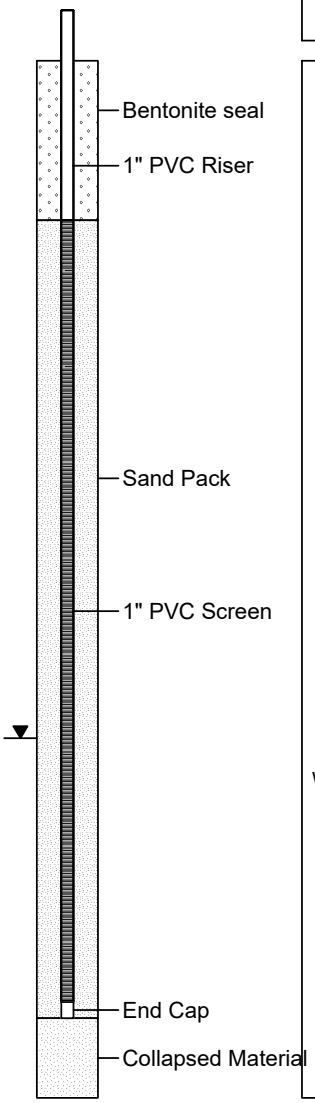
*Replacement of piezometer installed on 10/27/16

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, EIT
Drilling Company	: Allied
Driller	: Tim Moyer
Drilling Equipment	: Geoprobe 77DT

Soil Boring Installation Date	: 2/12/2019
Piezometer Installation Date	: 2/12/2019
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563251.62
Easting (US ft)	: 1456303.61
0-Hr DTW	: 11.82' TOC
48-Hr DTW	: 11.59' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS
0		-	None	(0-1.5') BRICK, SAND and GRAVEL, some CLAY at surface, dense, dark brown and red, wet then moist, no plasticity, no cohesion	NA
		-		(1.5-7') BRICK, SAND, and GRAVEL, dense, bery pale brown with trace gray, very moist, no plasticity, no cohesion	
	50	0.8			
		0.5			NA
5		0.5			
		-			
		-			
	20	-		(7-13') BRICK and SLAG, SAND, and fine GRAVEL, medium dense to dense, very dark brown with red, wet, no plasticity, no cohesion	
		-			
		0.4			NA
10		-			
	50	0.9			
		0.7			
				End of boring	
15					



REMARKS: Wet at 9' bgs

Boring terminated at 13' 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: 3.10'
Riser: 0 - 2' bgs
Screen: 2 - 12' bgs [Slot Size: 0.010"]
Sand Pack: 2 - 12' bgs [Grain Size: WG #2]
Bentonite Seal: 0 - 2' bgs [Grain Size: 3/8" chips]

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ARM Group LLC
Engineers and Scientists

Boring ID: B18-066-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/24/2016
Weather	: 70s, sunny
Northing (US ft)	: 563723.80
Easting (US ft)	: 1457727.57

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B18-066-SB-1	(0-2.5') SANDY SLAG SILT and GRAVEL, soft, grayish brown, dry, no plasticity, no cohesion	ML/GW	
		0.9				
	70	2.5		(2.5-4') SILT, hard, brown and red, dry, no plasticity, no cohesion	ML	
		1.7	B18-066-SB-4			
				(4-4.1') CONCRETE, dense, light gray, dry, no plasticity, no cohesion	NA	Wet at 4.1' bgs
		18.6		(4.1-4.5') SILT, very firm, dark brown, wet, no plasticity, no cohesion	ML	
5				(4.5-6') SLAG GRAVEL and SAND, loose, gray, wet, no plasticity, no cohesion	SW/GW	
		-				
	50	-		(6-7.3') CLAYEY GRAVEL, loose, brown, wet, no plasticity, no cohesion	GC	
		-		(7.3-8') CLAYEY SILT, very soft, very light gray, wet, low plasticity, cohesive	ML	Possible ash; very light with wood fragments
				End of boring		
10						

Total Borehole Depth: 8' bgs.
Boring terminated at 8' bgs due to groundwater and refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-067-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/24/2016
Weather	: 70s, sunny
Northing (US ft)	: 563799.00
Easting (US ft)	: 1457711.99

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	86	0.2	B18-067-SB-1	(0-2.7') SANDY SLAG SILT and GRAVEL, soft, grayish brown, dry, no plasticity, no cohesion	ML	
		2.4				
		19.2		(2.7-3.5') CONCRETE, dense, light gray, dry, no plasticity, no cohesion	NA	
		10.5	B18-067-SB-4	(3.5-6') SLAG GRAVEL with trace SAND, dense, brown and gray, dry then wet at 4.2' bgs, no plasticity, no cohesion	GW	Wet at 4.2' bgs
		0.3				
5						
	100	-		(6-6.5') SILT with SLAG GRAVEL, very soft, black, wet, low plasticity, cohesive	ML	Light to moderate fuel-type odor, no sheen 6-6.5' bgs
				End of boring		
10						

Total Borehole Depth: 6.5' bgs.
Boring terminated at 6.5' bgs due to groundwater and refusal.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-068-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/21/2016
Weather	: 70s, sunny
Northing (US ft)	: 563626.15
Easting (US ft)	: 1456602.73

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0						
	56	-	B18-068-SB-1	(0-3.7') GRAVELLY SLAG, SAND-sized, loose, brown, dry, no plasticity, no cohesion	SW/GW	
		-				
		30				
		10.8				
		8.1		(3.7-6') SLAG, SANDY SILT-sized grading to SANDY GRAVEL-sized, soft to loose, brown and gray, dry, no plasticity, no cohesion	ML/GW	Gravel slag is very light and has dull metallic luster 3.7-5' bgs
5		-				
	60	-		(6-7.9') SLAG, SILT to GRAVEL-sized, soft to loose, brown and gray, dry, no plasticity, no cohesion	ML/GW	
		1.0				
		18.0	B18-068-SB-9	(7.9-9.9') SLAG, SAND and GRAVEL-sized, with some SILT from 9-9.9' bgs, medium dense to dense, pale brown, dry then wet at 9' bgs, no plasticity, no cohesion	SW/GW	Some cementation of grains 7.9-9' bgs Wet at 9' bgs
		137.7				
10				(9.9-10') SAND, very fine to medium, loose, yelllow, wet, no plasticity, no cohesion	SW	
				End of boring		
15						

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-069-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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

Date	: 10/21/2016
Weather	: 70s, sunny
Northing (US ft)	: 563632.23
Easting (US ft)	: 1456626.17

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0		-	B18-069-SB-1	(0-1.5') Non-native SANDY SILT with SLAG GRAVEL, soft, brown, dry, no plasticity, no cohesion	ML	
		6.6		(1.5-5.5') SLAG SAND and GRAVEL, medium dense, brown and black with trace gray, dry, no plasticity, no cohesion		
	80	48.6				
		32.4			SW/GW	Coal gravel present/possible cinder ballast 4-5' bgs
		0.7				
5		-		(5.5-9.8') SLAG SAND and GRAVEL, dense, light gray and white, dry then wet at 8', no plasticity, no cohesion		Moderate cement covering slag 6-9.8' bgs
		20.6				
	90	67.2	B18-069-SB-8		SW/GW	Wet at 8' bgs
		21.1				
		-				
10				(9.8-10') SANDY SLAG GRAVEL with SILT, medium dense, dark brown, wet, no plasticity, no cohesion	SW/GW	
				End of boring		
15						

Total Borehole Depth: 10' bgs.
Boring terminated at 10' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-070-SB/PZ

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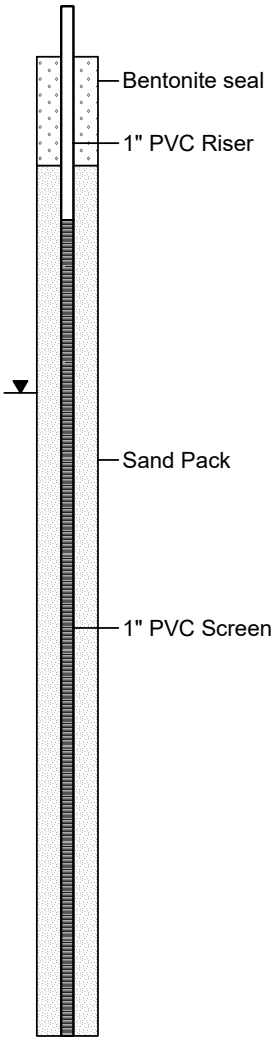
Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: GSI/Allied Drilling Co.
Driller	: Don Marchese/Mike Waller
Drilling Equipment	: Dietrich D120

Soil Boring Installation Date	: 10/26/16-12/2/16
Piezometer Installation Date	: 12/2/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 3.25"
Riser/Screen Diameter	: 2"
Northing (US ft)	: 563870.81
Easting (US ft)	: 1458116.24
0-Hr DTW	: 4.47' TOC
48-Hr DTW	: 8.98' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	Blow Count	DESCRIPTION	USCS
0		-	B18-070-SB-1		(0-4') SLAG, SAND and GRAVEL-sized, and SILT, with trace BRICK and increasing SILT content from 3-4', medium dense, brown and gray, dry, no plasticity, no cohesion	SW/GW
	84	1.7				
		3.5				
		15.0				
		12.3	B18-070-SB-5		(4-4.3') CONCRETE, medium dense, white, dry, no plasticity, no cohesion	NA
5		-			(4.3-7') SANDY SILT with GRAVEL and trace COAL, medium dense, dark brown with trace red, dry, no plasticity, no cohesion	ML
		0.2				
	100	0.2			(7-7.5') SILTY SAND with GRAVEL and trace WOOD fragments, medium dense, dark brown with trace red, very moist to wet, no plasticity, no cohesion	SM
		0.3				ML
		0.2			(7.5-8.4') SANDY SILT, very soft, red, wet, low plasticity, cohesive	SM
10		-			(8.4-10.5') SILTY SAND with GRAVEL, fine to medium grained, loose, red, wet, no plasticity, no cohesion	
		-			(10.5-15') POOR RECOVERY due to drilling method, 1' of concrete recovered from 11-15', no spilt spoons used	-
	20	-				
		-				
		-				
15		0.0		7 8 3 4	(15-15.7') SAND, medium to very coarse, with trace GRAVEL, very small, medium dense, brown and grayish brown, wet, no plasticity, no cohesion	SW
	100	0.0				GWSW
		0.0		1 2 3 4	(15.7-18.1') SANDY GRAVEL grading to GRAVEL with SAND, medium dense, grayish brown, yellow, and very pale brown, wet, no plasticity, no cohesion	
	100	0.0				
		0.0				CH
	100	0.0		8 11	(18.1-20') CLAY, hard, yellowish red and pale brown mottling, moist, high plasticity, cohesive	
20					End of Boring	



REMARKS

White to cloudy transparent material present from 4.3'-5' bgs, viscous with tensile strength, soft with some WOOD fragments

Wet at 7' bgs

Material 10-15' bgs was logged on 12/1/2016 and 12/2/2016 using a Dietrich D120 hollow stem auger rig with split spoons, diamond core, and roller bit managed by Mike Waller with Allied Drilling Co.

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: 2.8'
Riser: 0 - 3' bgs
Screen: 3 - 18' bgs [Slot Size: 0.020"]
Sand Pack: 2 - 18' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 2' bgs [Grain Size: 3/8" chips/Granular 30-50 Mesh]

ARM Group LLC
Engineers and Scientists

Boring ID: B18-071-SB/PZ

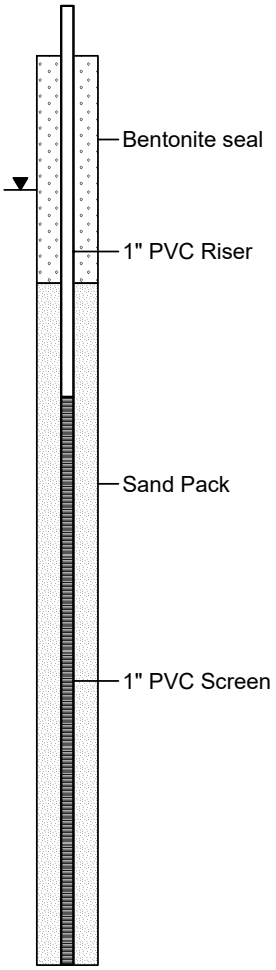
(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: GSI/Allied Driiling Co.
Driller	: A. Niblett/M. Waller
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 10/26/16 &12/2/16
Piezometer Installation Date	: 12/5/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 3.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563757.80
Easting (US ft)	: 1458118.54
0-Hr DTW	: 3.00' TOC
48-Hr DTW	: 5.16' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	Blow Count	DESCRIPTION	USCS
0		-	B18-071-SB-1		(0-3') Non-native SANDY SILT with trace COAL and SLAG GRAVEL, medium dense, brown, dry, no plasticity, no cohesion	ML
	70	3.8				
		5.8				
		0.0			(3-5') SLAG, SAND and GRAVEL-sized, loose, gray and brown, dry, no plasticity, no cohesion	SW/GW
		0.0	B18-071-SB-5			
5	85	-			(5-7') CONCRETE, hard, gray, dry, no plasticity, nocohesion	NA
		-				
	50	0.0			(7-8') SLAG, SILT to small GRAVEL-sized, medium dense, brown, dry, no plasticity, no cohesion	ML/GW
		0.0			(8-9') SLAG, GRAVEL-sized with SILT, loose, brown and gray, wet, no plasticity, no cohesion	GW-GM
10	0	-			(9-15') SAND with trace SILT and very small GRAVEL, fine to very coarse, medium dense, brownish gray, wet, no plasticity, no cohesion	SW
	0	-				
	0	-				
		-				
15	100	-		2 3 3 4	(15-15.8') CLAY, hard, grayish brown with trace yellowish red mottling, moist, high plasticity, cohesive	CL
					(15.8-17') SAND, medium to very coarse, medium dense, brown and grayish brown, wet, no plasticity, no cohesion	SW
					End of Boring	
20						



REMARKS

Viterous luster from 3.5-5' bgs

Diamond core used from 5-7' bgs

Wet at 8' bgs

No recovery from 9-15' bgs due to heaving sands, but visually inspected material pumped out

Material 5-17' bgs was logged on 12/2/2016 and 12/5/2016 using a Dietrich D120 hollow stem auger rig with split spoons, diamond core, and roller bit managed by Mike Waller with Allied Drilling Co.

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: 2.8'
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: 3/8" chips/Granular 30-50 Mesh]

ARM Group LLC
Engineers and Scientists

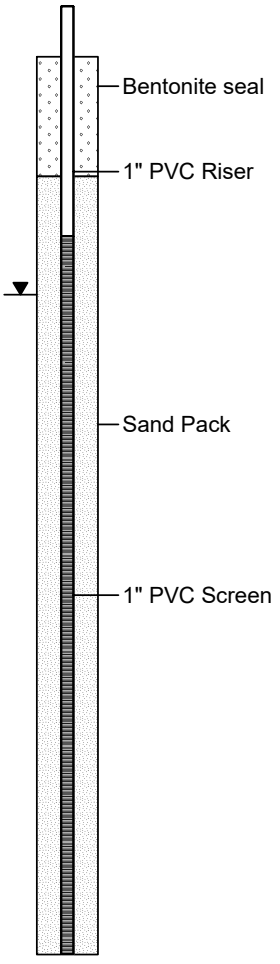
Boring ID: B18-072-SB/PZ

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: GSI/Allied Drilling Co.
Driller	: Don Marchese/Mike Waller
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 10/26/16 & 11/28/16
Piezometer Installation Date	: 11/28/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 3.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563637.25
Easting (US ft)	: 1458123.94
0-Hr DTW	: 10.85' TOC
48-Hr DTW	: 6.98' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	Blow Count	DESCRIPTION	USCS
0	92	0.8	B18-072-SB-1		(0-2') GRAVELLY SILT with SAND, firm, brown with some gray, dry, no plasticity, no cohesion	ML
		12.0				
		1.5			(2-4') SILT with SLAG/BRICK GRAVEL, hard, brown with trace gray and red, dry, no plasticity, no cohesion	ML/GW
		0.1	B18-072-SB-4			
5		0.0			(4-6') SAND and GRAVEL with SILT, fine to coarse grained, medium dense, brown with trace very pale brown, wet, no plasticity, no cohesion	SW/GW
	46	-			(6-10') GRAVEL with very coarse SAND, dense; gray, dark gray, and reddish yellow; wet, no plasticity, no cohesion	GW/SP
10		-			(10-15') Very hard drilling; no split spoons	-
	0	-				
15	75	-		1 1 2 2	(15-17') CLAY, firm, gray with some reddish yellow, moist, medium plasticity, cohesive	CL
20					End of Boring	



REMARKS

Wet at 4' bgs

Material was logged from 10-17' bgs on 11/28/2016 using Dietrich D120 Hollow stem auger rig with split spoons, diamond core, and roller bit managed by Mike Waller of Allied Drilling Co.

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: 3.00'
Riser: 0 - 3' bgs
Screen: 3 - 15' bgs [Slot Size: 0.020"]
Sand Pack: 2 - 15' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 2' bgs [Grain Size: 3/8" chips/Granular 30-50 Mesh]

ARM Group LLC
Engineers and Scientists

Boring ID: B18-073-SB

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
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
Date	: 10/24/2016
Weather	: 70s, sunny
Northing (US ft)	: 563493.89
Easting (US ft)	: 1457480.95

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample ID/Interval	DESCRIPTION	USCS	REMARKS
0		-	B18-073-SB-1	(0-2.9') SLAG SILT to SAND with GRAVEL, soft, grayish brown, dry, no plasticity, no cohesion	ML/GW	
		-				
	60	1.9				
		0.5		(2.9-4.8') SILT with some SLAG GRAVEL, very firm, red and dark gray, dry, low plasticity, cohesive	ML	
		5.9	B18-073-SB-5			
5				(4.8-5') GRAVELLY SLAG SAND, medium dense, grayish brown, dry to moist, no plasticity, no cohesion	SW/GW	
		2.9		(5-5.3') CONCRETE, loose, gray, dry, no plasticity, no cohesion	NA	
					SW	
		1.8		(5.3-5.6') SLAG SAND, dense, yellow-brown, dry, no plasticity, no cohesion	NA	
	100	0.0		(5.6-6.2') CONCRETE, loose, white, dry, no plasticity, no cohesion	SW	
		0.0		(6.2-7.3') SAND with some SLAG, fine to medium grained, medium dense, yellow-brown, moist, no plasticity, no cohesion	CL	
		0.0		(7.3-8.1') CLAY, soft, olive yellow, wet to very moist, medium plasticity, cohesive	CL	
10		0.0		(8.1-10.7') CLAY, hard, olive yellow with reddish yellow mottling, dry, medium plasticity, cohesive		Wet at 10.7' bgs
		0.0		(10.7-12') CLAY, soft, olive yellow, wet to very moist, medium plasticity, cohesive	CL	
	96	0.0		(12-12.8') SANDY CLAY, firm, olive yellow, moist to very moist, medium plasticity, cohesive	CL	
		0.0		(12.8-15') SAND, very fine to fine grained, medium dense to dense, olive yellow, wet, no plasticity, no cohesion	SW	
		0.0				
15				End of boring		

Total Borehole Depth: 15' bgs.
Boring terminated at 15' bgs due to groundwater.

ARM Group LLC
Engineers and Scientists

Boring ID: B18-074-SB/PZ

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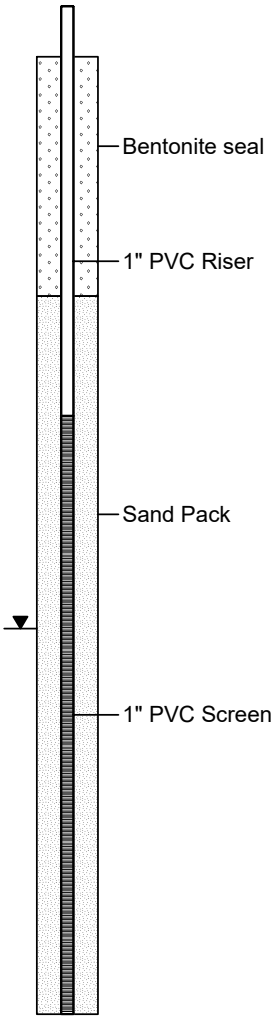
Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: GSI/Allied Drilling Co.
Driller	: Don Marchese/Mike Waller
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 10/17/16&11/30/16
Piezometer Installation Date	: 11/30/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 3.25"
Riser/Screen Diameter	: 2"
Northing (US ft)	: 563210.34
Easting (US ft)	: 1458045.83
0-Hr DTW	: 12.36' TOC
48-Hr DTW	: 12.36' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	Blow Count	DESCRIPTION	USCS	REMARKS
0		-	B18-074-SB-1		(0-3') SAND, fine to medium, loose, dark brown to black, dry, no plasticity, no cohesion	SW	
		4.6					
	84	3.7					
		2.2			(3-6') SAND with BRICK and CONCRETE, fine to medium, loose, dark brown to black and gray with some reddish yellow 3-4', dry, no plasticity, no cohesion	SW	
		1.5					
5		-					Wet at 9' bgs
		-			(6-9') CLAY and SAND with CONCRETE, soft/loose, light brown, white, gray, and dark brown to black, dry, high plasticity/no plasticity, cohesive/no cohesion	CL/SW	
	60	6.0					NAPL present 12-13.5' bgs, strong odor, black, sheen present on water
		35.3	B18-074-SB-9				
		21.3			(9-10') SAND and SLAG GRAVEL, loose, black, wet, no plasticity, no cohesion	SW/GW	
10		-			(10-12') SLAG, SAND-sized, medium dense, black, wet, no plasticity, no cohesion	SW	Organics/wood from 13-13.5' bgs
	100	25.7					
		8.8			(12-13') SAND with some CLAY lenses, dense, black and light brown, wet, no plasticity, no cohesion	SW-SC	
		-		4			
	60			5	(13-15.2') SAND with SILT, medium dense to dense, black, wet, no plasticity, no cohesion	SW-SM	Material was logged from 13-16' bgs on 11/30/2016 using the Dietrich D120 hollow stem auger rig with splitspoons managed by Mike Waller of Allied Drilling Co.
		-		11			
15				7			
	100	-		4	(15.2-16') CLAY, very firm, light olive gray, moist, high plasticity, cohesive	CL	
				4			
					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: 2.8'
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: 3/8" chips/Granular 30-50 Mesh]

ARM Group LLC
Engineers and Scientists

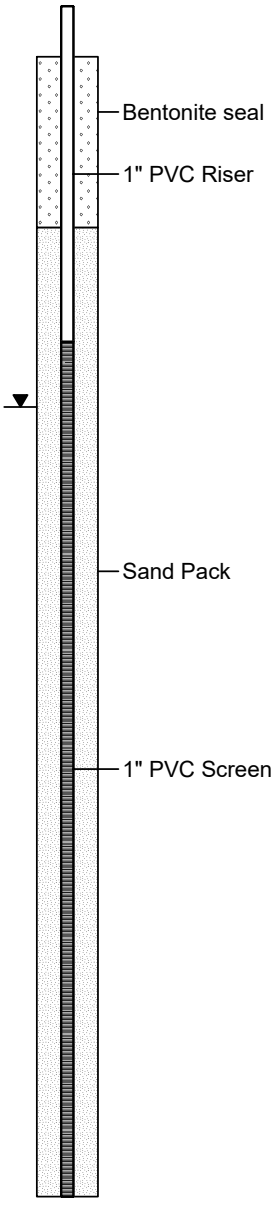
Boring ID: B18-075-SB/PZ

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: GSI/Allied Drilling Co.
Driller	: Don Marchese/Mike Waller
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 10/27/16&12/1/16
Piezometer Installation Date	: 12/1/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 3.25"
Riser/Screen Diameter	: 2"
Northing (US ft)	: 563176.91
Easting (US ft)	: 1457703.00
0-Hr DTW	: 9.40' TOC
48-Hr DTW	: 9.15' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	Blow Count	DESCRIPTION	USCS
0	80	0.7			(0-1.5') CONCRETE, SILT-sized, with SLAG GRAVEL, very firm, grayish brown, dry, no plasticity, no cohesion	NA/GW
		6.6	B18-075-SB-2			
	80	-		30 50/3	(1.5-4.2') SAND with SILT and GRAVEL, very fine to medium with some coarse, medium dense, dark brown and grayish brown, dry, no plasticity, no cohesion	SW-SM
		-				
5	75	0.0	B18-074-SB-5.5	11 8 9 14	(4.2-5') SILTY SAND, medium dense, black, very moist, no plasticity, no cohesion	SM
		0.1			(5-8.7') SLAG and BRICK, SAND-sized with some GRAVEL, medium dense, yellow, gray, and dark brown, dry then wet at 8', no plasticity, no cohesion	SW
	75	0.1				
	0	-				
	65	0.1		19 5 3 3		
		0.0	B18-075-SB-10		(8.7-9.1') SLAG, SAND and GRAVEL-sized, medium dense, green, wet, no plasticity, no cohesion	SW/GW
10	80	0.1		2 4 10 7	(9.1-11.4') CLAY with trace SAND, hard, pale brown and reddish yellow, dry, medium plasticity, cohesive	CL
		0.1			(11.4-12.5') SAND with CLAY, fine to medium, dense, very pale brown with trace reddish yellow, wet, no plasticity, no cohesion	SW
	100	0.1		6 8 12 14		CL
		0.1			(12.5-13.1') SANDY CLAY, very soft, pale brown, wet, low plasticity, cohesive	SW
15	100	0.1		2 2 2 3	(13.1-14.6') SAND, fine to medium, dense then loose 14-14.6', very pale brown with trace reddish yellow, wet, no plasticity, no cohesion	CL
		0.0				
	100	0.0		4 4 5 5	(14.6-16') CLAY, hard, light brownish gray, moist, high plasticity, cohesive	SW
		0.0				
	100	0.0		1 1 2 1	(16-17.6') SAND, fine to medium, dense, pale brown to reddish yellow, wet, no plasticity, no cohesion	CL
20		0.0			(17.6-20') CLAY, hard, light brownish gray, moist, high plasticity, cohesive	
					End of Boring	



REMARKS

Wet at 11.4' bgs

Material was logged from 2-20' bgs on 12/1/2016 using the Dietrich D120 hollow stem auger rig with splitspoons managed by Mike Waller of Allied Drilling Co.

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: 2.95'
Riser: 0 - 5' bgs
Screen: 5 - 20' bgs [Slot Size: 0.010"]
Sand Pack: 3 - 20' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 3' bgs [Grain Size: 3/8" chips/Granular 30-50 Mesh]

ARM Group LLC
Engineers and Scientists

Boring ID: B18-076-SB/PZ

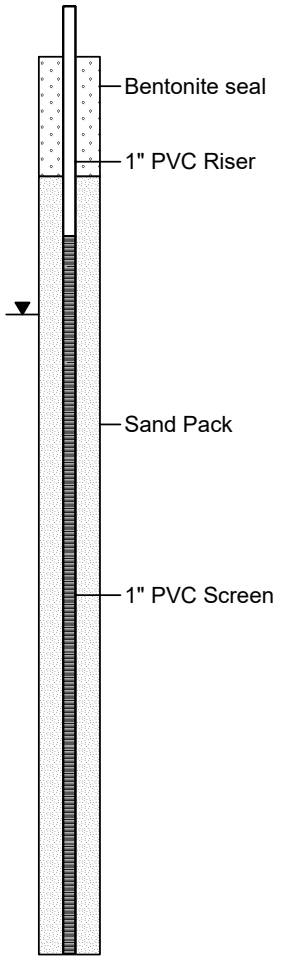
(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: GSI/Allied Drilling Co.
Driller	: Don Marchese/Mike Waller
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 10/17/16&12/5/16
Piezometer Installation Date	: 12/6/2016
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 3.25"
Riser/Screen Diameter	: 2"
Northing (US ft)	: 563176.10
Easting (US ft)	: 1457422.60
0-Hr DTW	: 6.94' TOC
48-Hr DTW	: 7.11' TOC

No LNAPL or DNAPL detected at 0 or 48 hours

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	Blow Count	DESCRIPTION	USCS
0		-	B18-076-SB-1		(0-1.5') SAND with some gray CONCRETE, medium grained, loose, black, dry, no plasticity, no cohesion	SP
	78	0.3			(1.5-3') SANDSTONE, SAND and GRAVEL-sized, very dense, tan, dry, no plasticity, no cohesion	SW/GW
		0.2			(3-3.5') BRICK, SAND and GRAVEL-sized, very dense, red, wet, no plasticity, no cohesion	SW/GW
		0.2			(3.5-5') SANDSTONE, SAND and GRAVEL-sized, very dense, tan, wet, no plasticity, no cohesion	SW/GW
5		-				
	44	-			(5-9') SLAG and CONCRETE with trace SAND, dense, black, gray, and brown, wet, no plasticity, no cohesion	GW
		-				
		-				
	50	-		14 50/5	(9-12.2') SAND, fine to coarse grained, with SILT, and with trace CONCRETE at 10', loose, brown, wet, no plasticity, no cohesion	SW-SM
10	0	-				
		-		4 4 8 4	(12.2-12.5') BRICK, SAND and GRAVEL-sized, loose, pink, wet, no plasticity, no cohesion	SW/GW
	75	-		5 7 8 5	(12.5-14.6') SAND, fine to medium with some coarse, dense, light grayish green, pale brown, and light red, wet, no plasticity, no cohesion	SW
	95	-		1 2	(14.6-16') CLAY, hard, very pale brown, moist, high plasticity, cohesive	CL
15	100				End of Boring	
20						



REMARKS
Drillers hit concrete from 2-3' bgs
Wet at 4' bgs
Material was logged from 9-16' bgs on 12/5/2016 using a Dietrich D120 hollow stem auger rig with split spoons managed by Mike Waller of Allied Drilling Co.

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: 2.80'
Riser: 0 - 3' bgs
Screen: 3 - 15' bgs [Slot Size: 0.010"]
Sand Pack: 2 - 15' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 2' bgs [Grain Size: 3/8" chips/Granular 30-50 Mesh]

ARM Group LLC
Engineers and Scientists

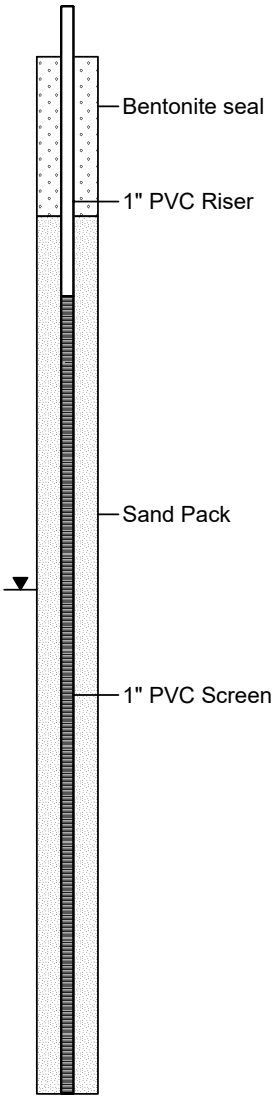
Boring ID: B18-077-SB/PZ

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-14-3
Project Description	: Sparrows Point - Parcel B18
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: M. Replogle, E.I.T.
Drilling Company	: Green Services, Inc
Driller	: Rick Miller
Drilling Equipment	: Geoprobe 7822DT

Soil Boring Installation Date	: 6/28/2017
Piezometer Installation Date	: 6/28/2017
Casing/Riser/Screen Type	: PVC
Borehole Diameter	: 2.25"
Riser/Screen Diameter	: 1"
Northing (US ft)	: 563516.70
Easting (US ft)	: 1456183.33
0-Hr DTW	: 9.16' TOC
48-Hr DTW	: 9.78' TOC
Trace NAPL detected at 0 hours	

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B18-077-SB-1	(0-1.5') SANDY SILT with GRAVEL, medium dense, light brown, dry, no plasticity, no cohesion	ML	
		0.0		(1.5-2.2') SILTY SAND, very fine to coarse, with some GRAVEL, medium dense, dark brown, dry, no plasticity, no cohesion	SM	
	68	0.0		(2.2-4') SAND with GRAVEL grading to SILTY SAND, medium dense, yellow with alternating brown layers, dry, no plasticity, no cohesion	SW/SM	
		0.0	B18-077-SB-4.5			Wet at 4.5' bgs
		0.0		(4-7') SLAG and BRICK, GRAVEL-sized with some SAND-sized,with trace SILT, medium dense to dense, gray, brown, and very pale brown, dry then wet at 4.5' bgs, no plasticity, no cohesion	GW/SW	Petroleum-like product from 7-10' bgs (light from 7-7.5' bgs, moderate from 7.5-8.8' bgs, trace from 8.8-10')
5		-				
		0.0				
	90	0.0		(7-10') SLAG, GRAVEL and SAND-sized, with SILT from 8.8-10' bgs, dense, gray, dark gray, and light gray, wet, no plasticity, no cohesion	GW/SW	
		0.0				
		1.8				
10		-		(10-13') SLAG, SAND and GRAVEL-sized, with trace SILT, medium dense to dense, light gray and light brown, wet, no plasticity, no cohesion	GW/SW	Very light to trace product from 10-13' bgs
	100	-				
		-				
				End of Boring		
15						



Boring terminated at 13' 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: 3.10'
Riser: 0 - 3' bgs
Screen: 3 - 13' bgs [Slot Size: 0.010"]
Sand Pack: 2 - 13' bgs [Grain Size: WG #1]
Bentonite Seal: 0 - 2' bgs [Grain Size: 3/8" chips/Granular 30-50 Mesh]

APPENDIX C

March 27, 2017

Mr. James Calenda
EnviroAnalytis Group, LLC
1650 Des Peres Road, Suite 303
St. Louis, MO 63131

Re: Sparrows Point Well Survey
Sparrows Point, MD
Triad Engineering Job No. 03-15-0343

Mr. Calenda:
Below are the specified surveyed wells, date of last field work completed on March 15, 2017. The coordinate values shown were derived from G.P.S. observations based on National Geodetic Surveys stations “GIS 1”, PID AC7684 and “GIS 2”, PID AC7685 which purport to be on NAD83(2011) Maryland Grid coordinate system with NAVD88 (AMSL) elevations.

DESCRIPTION	*NORTHING*	*EASTING*	*TOP CASING ELEVATION*	*GROUND AT WELL/PIEZOMETER ELEVATION*
B18-007-PZ	563152.5601	1456556.5282	16.82	14.12
B18-046-PZ	563301.2512	1456053.7155	17.00	13.81
B18-061-PZ	563243.8731	1456297.9748	16.17	13.29
B18-070-PZ	563864.9161	1458116.9032	14.63	11.74
B18-071-PZ	563752.9641	1458120.8073	14.75	11.93
B18-072-PZ	563629.2464	1458125.9132	14.28	11.53
B18-074-PZ	563204.9798	1458049.2716	15.74	12.87
B18-075-PZ	563168.4935	1457705.4134	16.07	13.24
B18-076-PZ	563171.2410	1457422.0494	15.34	12.55

December 18, 2018

Mr. James Calenda
EnviroAnalytis Group, LLC
1650 Des Peres Road, Suite 303
St. Louis, MO 63131

Re: Sparrows Point Well Survey
Sparrows Point, MD
Triad Engineering Job No. 03-15-0343

Mr. Calenda:
Below are the specified surveyed wells, date of last field work completed on December 11-13, 2018. The coordinate values shown were derived from G.P.S. observations based on National Geodetic Surveys stations “GIS 1”, PID AC7684 and “GIS 2”, PID AC7685 which purport to be on NAD83(2011) Maryland Grid coordinate system with NAVD88 (AMSL) elevations.

DESCRIPTION	*NORTHING*	*EASTING*	*TOP CASING ELEVATION*	*GROUND AT WELL ELEVATION*
B18-077-PZ	563516.695	1456183.330	16.16	13.03

APPENDIX D

PID CALIBRATION LOG

PROJECT NAME: Area B, Parcel B18 Phase II	SAMPLER NAME: L. Glumac, L. Perrin, N. Kurtz	
PROJECT NUMBER: 150300M-14	DATE: 10/17/2016	PAGE 1 of 1

DATE/TIME	SAMPLER INITIALS	PID SERIAL #	FRESH AIR CAL	STANDARD	STANDARD CONCENTRATION	METER READING	COMMENTS
10/17/2016 8:20	LMG	592-913262	0.0	Isobutylene	100 ppm	99.9	-
10/18/2016 7:55	LP	592-913262	0.0	Isobutylene	100 ppm	100.9	-
10/19/2016 8:21	LP	592-913262	0.0	Isobutylene	100 ppm	100.3	-
10/20/2016 8:34	LP	592-913262	0.0	Isobutylene	100 ppm	99.9	-
10/21/2016 9:18	LP	592-913262	0.0	Isobutylene	100 ppm	99.9	-
10/24/2016 8:00	NK	592-913262	0.0	Isobutylene	100 ppm	99.8	-
10/25/2016 8:14	LP	592-913262	0.0	Isobutylene	100 ppm	99.7	-
10/26/2016 7:55	LP	592-913262	0.0	Isobutylene	100 ppm	99.9	-
10/27/2016 8:12	LP	592-913262	0.0	Isobutylene	100 ppm	99.9	-
12/1/2016 8:15	LP	592-913262	0.0	Isobutylene	100 ppm	101.0	-
6/28/2017 8:00	LP	592-901073	0.0	Isobutylene	100 ppm	99.6	-
11/6/2017 9:30	LP	592-919897	0.0	Isobutylene	100 ppm	100.0	-
11/13/2017 9:15	LP	592-919897	0.0	Isobutylene	100 ppm	100.0	-

APPENDIX E

Low Flow Sampling
Temporary Piezometers

ARM Group Inc.
Earth Resource Engineers and Consultants

Project Name: Parcel B18 Phase II	Project Number: 150300M-14-3
Piezometer Number: B18-007-PZ	Date: 12/13/16
Piezometer Diameter (in): 2"	One Well Volume (gal):
Depth to Product (ft): ———	QED Controller Settings:
Depth to Water (ft): 11.45	Flow Rate (mL/min) 300
Product Thickness (ft): ———	Length of time Purged (min) ~20
Depth to Bottom (ft):	

PURGING RECORD

Time	Volume Purged (gallons)	DTW (feet)	Temp (°C)	pH (s.u.) ± 0.1	Specific Conductance (ms/cm) ± 3%	Dissolved Oxygen (mg/L) ± 0.3	ORP (mV) ± 10	Turbidity (NTU) ± 10% or < 5	Comments
1114	0.2	11.46	18.00	12.11	3.029	0.16	-305.3	106.4	cloudy
1119	0.5	11.47	18.17	12.12	3.043	0.16	-309.8	69.3	
1124	0.9	11.48	18.44	12.11	3.010	0.13	-273.8	34.7	
1129	1.3	11.50	18.59	12.08	2.991	0.14	-274.6	19.8	clearer
1134	1.7	11.50	18.6	12.05	2.837	0.13	-272.0	16.8	

MONITORING SAMPLE RECORD

Sample ID	Time Collected	Parameter/Order	Container	Perservative	Collected?
B18-007-PZ	1140	TCL-VOCs	3 - 40 mL VOA	HCl	Y
		TPH-GRO	3 - 40 mL VOA	HCl	
		TPH-DRO	2 - 1 L Amber	none	
		TCL-SVOCs	2- 1 L Amber	none	
		Oil & Grease	1 - 1 L Amber	HCl	
		Total Cyanide	1 - 250 mL Plastic	NaOH	
		TAL-Metals & Mercury (Dissolved) **Field Filtered**	1 - 250 mL Plastic	HNO3	
		Hexavalent Chromium (Dissolved) **Field Filtered**	1 - 250 mL Plastic	None	
		Matrix Spike			
		Duplicate			

Sampled By: LMG

Comments:

Casing Volume: **1" I.D.** = 0.041 gal/ft - **2" I.D.** = 0.163 gal/ft - **4" I.D.** = 0.653 gal/ft - **6" I.D.** = 1.47 gal/ft

_____ ft x _____ gal/ft = _____ (gal)

Low Flow Sampling
Temporary Piezometers

ARM Group Inc.
Earth Resource Engineers and Consultants

Project Name: Parcel B/S Phase II	Project Number: 150200M-14-3
Piezometer Number: B18-046-PZ	Date: 12/13/16
Piezometer Diameter (in): 1"	One Well Volume (gal):
Depth to Product (ft): —	QED Controller Settings:
Depth to Water (ft): 7.76 TOC	Flow Rate (mL/min) 300
Product Thickness (ft): —	Length of time Purged (min) 15
Depth to Bottom (ft):	

PURGING RECORD

Time	Volume Purged (gallons)	DTW (feet)	Temp (°C)	pH (s.u.) ± 0.1	Specific Conductance (ms/cm) ± 3%	Dissolved Oxygen (mg/L) ± 0.3	ORP (mV) ± 10	Turbidity (NTU) ± 10% or < 5	Comments
1348	0.2	7.71	13.33	11.52	1.056	1.04	-118.5	1.16	very clear
1353	0.8	7.78	13.59	11.51	1.076	0.93	-123.9	0.72	
1358	1.2	7.79	13.47	11.52	1.071	0.88	-124.5	0.43	
~~1353~~ 1403	1.6	7.78	13.46	11.52	1.071	0.85	-124.9	0.56	

MONITORING SAMPLE RECORD

Sample ID	Time Collected	Parameter/Order	Container	Perservative	Collected?
B18-046-PZ	1407	TCL-VOCs	3 - 40 mL VOA	HCl	Y
		TPH-GRO	3 - 40 mL VOA	HCl	
		TPH-DRO	2 - 1 L Amber	none	
		TCL-SVOCs	2- 1 L Amber	none	
		Oil & Grease	1 - 1 L Amber	HCl	
		Total Cyanide	1 - 250 mL Plastic	NaOH	
		TAL-Metals & Mercury (Dissolved) **Field Filtered**	1 - 250 mL Plastic	HNO3	
		Hexavalent Chromium (Dissolved) **Field Filtered**	1 - 250 mL Plastic	None	
Matrix Spike					
Duplicate					

Sampled By: UMG

Comments:

Casing Volume: **1" I.D.** = 0.041 gal/ft - **2" I.D.** = 0.163 gal/ft - **4" I.D.** = 0.653 gal/ft - **6" I.D.** = 1.47 gal/ft

_____ ft x _____ gal/ft = _____ (gal)

Low Flow Sampling
Temporary Piezometers

ARM Group Inc.
Earth Resource Engineers and Consultants

Project Name: Parcel B1B Phase II	Project Number: 150300M-14-3
Piezometer Number: B1B-061-PZ	Date: 12/13/16
Piezometer Diameter (in): 1"	One Well Volume (gal):
Depth to Product (ft): ~~———~~	QED Controller Settings:
Depth to Water (ft): 10.30	Flow Rate (mL/min) 300
Product Thickness (ft): ———	Length of time Purged (min) ~20
Depth to Bottom (ft):	

PURGING RECORD

Time	Volume Purged (gallons)	DTW (feet)	Temp (°C)	pH (s.u.) ± 0.1	Specific Conductance (ms/cm) ± 3%	Dissolved Oxygen (mg/L) ± 0.3	ORP (mV) ± 10	Turbidity (NTU) ± 10% or < 5	Comments
1227	0.4	10.30	17.05	10.28	1.058	1.92	-170.9	21.1	Clear
1232	0.9	10.30	17.22	9.88	1.054	0.26	-140.8	6.38	
1237	1.3	10.31	17.42	9.75	1.055	0.24	-147.1	2.58	
1242	1.75	10.32	17.36	9.75	1.056	0.22	-146.0	1.38	
1247	2.1	10.31	17.40	9.75	1.057	0.22	-149.7	0.72	

MONITORING SAMPLE RECORD

Sample ID	Time Collected	Parameter/Order	Container	Perservative	Collected?
B1B-061-PZ	1255	TCL-VOCs	3 - 40 mL VOA	HCl	Y
		TPH-GRO	3 - 40 mL VOA	HCl	
		TPH-DRO	2 - 1 L Amber	none	
		TCL-SVOCs	2- 1 L Amber	none	
		Oil & Grease	1 - 1 L Amber	HCl	
		Total Cyanide	1 - 250 mL Plastic	NaOH	
		TAL-Metals & Mercury (Dissolved) **Field Filtered**	1 - 250 mL Plastic	HNO3	
		Hexavalent Chromium (Dissolved) **Field Filtered**	1 - 250 mL Plastic	None	
Matrix Spike					
Duplicate					

Sampled By: LMG

Comments:

Casing Volume: **1" I.D.** = 0.041 gal/ft - **2" I.D.** = 0.163 gal/ft - **4" I.D.** = 0.653 gal/ft - **6" I.D.** = 1.47 gal/ft

_____ft x _____gal/ft = _____(gal)

Low Flow Sampling
Temporary Piezometers

ARM Group Inc.
Earth Resource Engineers and Consultants

Project Name: Parcel B1B Phase II	Project Number: 150300M-14-3
Piezometer Number: B1B-070-PZ	Date: 12/14/16
Piezometer Diameter (in): 2"	One Well Volume (gal):
Depth to Product (ft): —	QED Controller Settings:
Depth to Water (ft): 9.28 TOC	Flow Rate (mL/min) 250
Product Thickness (ft): —	Length of time Purged (min)
Depth to Bottom (ft):	

PURGING RECORD

Time	Volume Purged (gallons)	DTW (feet)	Temp (°C)	pH (s.u.) ± 0.1	Specific Conductance (ms/cm) ± 3%	Dissolved Oxygen (mg/L) ± 0.3	ORP (mV) ± 10	Turbidity (NTU) ± 10% or < 5	Comments
1118	0.5	9.28	17.25	6.69	3.340	0.32	-70.2	25.1	
1123	0.8	9.28	17.49	6.42	3.260	0.56	-105.6	36.8	
1128	1.1	9.28	17.46	6.25	3.233	0.56	-116.0	32.1	
1133	1.4	9.28	17.57	6.15	3.236	0.48	-118.8	27.4	
1138	1.75	9.28	17.54	6.05	3.261	0.46	-127.1	15.2	
1143									

MONITORING SAMPLE RECORD

Sample ID	Time Collected	Parameter/Order	Container	Perservative	Collected?
B1B-070-PZ	1143	TCL-VOCs	3 - 40 mL VOA	HCl	Y
		TPH-GRO	3 - 40 mL VOA	HCl	
		TPH-DRO	2 - 1 L Amber	none	
		TCL-SVOCs	2- 1 L Amber	none	
		Oil & Grease	1 - 1 L Amber	HCl	
		Total Cyanide	1 - 250 mL Plastic	NaOH	
		TAL-Metals & Mercury (Dissolved) **Field Filtered**	1 - 250 mL Plastic	HNO3	
		Hexavalent Chromium (Dissolved) **Field Filtered**	1 - 250 mL Plastic	None	
		Matrix Spike			
		Duplicate			

Sampled By: LMG

Comments:

Casing Volume: **1" I.D.** = 0.041 gal/ft - **2" I.D.** = 0.163 gal/ft - **4" I.D.** = 0.653 gal/ft - **6" I.D.** = 1.47 gal/ft

_____ft x _____gal/ft = _____(gal)

Low Flow Sampling
Temporary Piezometers

ARM Group Inc.
Earth Resource Engineers and Consultants

Project Name: Parcel B/C Phase II	Project Number: 150300M-14-3
Piezometer Number: B18-071-PZ	Date: 12/14/16
Piezometer Diameter (in): 2	One Well Volume (gal):
Depth to Product (ft): —	QED Controller Settings:
Depth to Water (ft): 9.23	Flow Rate (mL/min) 250 → 100 → as low as gp5pump
Product Thickness (ft): —	Length of time Purged (min) ~20
Depth to Bottom (ft):	

PURGING RECORD

Time	Volume Purged (gallons)	DTW (feet)	Temp (°C)	pH (s.u.) ± 0.1	Specific Conductance (ms/cm) ± 3%	Dissolved Oxygen (mg/L) ± 0.3	ORP (mV) ± 10	Turbidity (NTU) ± 10% or < 5	Comments
1324	0.2	9.58	16.19	12.07	2.251	0.35	-159.5	26.8	cloudy/turbid
1329	0.5	10.21	16.11	12.09	2.288	0.21	-159.0	28.1	
1334	0.8	13.87	15.99	12.11	2.323	0.18	-174.1	32.4	
1339	1.1	15.39	15.81	12.14	2.361	0.19	-183.7	31.8	
1344	1.4	17.48	15.84	12.17	3.399	0.19	-188.9	28.5	

MONITORING SAMPLE RECORD

Sample ID	Time Collected	Parameter/Order	Container	Perservative	Collected?
B18-071-PZ	1349 (12/14) 0822 (12/15)	TCL-VOCs	3 - 40 mL VOA	HCl	12/14
		TPH-GRO	3 - 40 mL VOA	HCl	12/14
		TPH-DRO	2 - 1 L Amber	none	12/15 & 12/14
		TCL-SVOCs	2- 1 L Amber	none	12/14 & 12/15
		Oil & Grease	1 - 1 L Amber	HCl	12/15
		Total Cyanide	1 - 250 mL Plastic	NaOH	12/15
		TAL-Metals & Mercury (Dissolved) **Field Filtered**	1 - 250 mL Plastic	HNO3	12/15
		Hexavalent Chromium (Dissolved) **Field Filtered**	1 - 250 mL Plastic	None	12/15
Matrix Spike					
Duplicate					

Sampled By: LMG

Comments: Purged dry during sample very slow recharge

Casing Volume: 1" I.D. = 0.041 gal/ft - 2" I.D. = 0.163 gal/ft - 4" I.D. = 0.653 gal/ft - 6" I.D. = 1.47 gal/ft

_____ ft x _____ gal/ft = _____ (gal)

Low Flow Sampling
Temporary Piezometers

ARM Group Inc.
Earth Resource Engineers and Consultants

Project Name: Parcel B1R Phase II	Project Number: 150300M-14-3
Piezometer Number: B18-072-PZ	Date: 12/14/16
Piezometer Diameter (in): 2"	One Well Volume (gal):
Depth to Product (ft): —	QED Controller Settings:
Depth to Water (ft): 6.81 TOC	Flow Rate (mL/min) 300
Product Thickness (ft): —	Length of time Purged (min)
Depth to Bottom (ft):	

PURGING RECORD

Time	Volume Purged (gallons)	DTW (feet)	Temp (°C)	pH (s.u.) ± 0.1	Specific Conductance (ms/cm) ± 3%	Dissolved Oxygen (mg/L) ± 0.3	ORP (mV) ± 10	Turbidity (NTU) ± 10% or < 5	Comments
1004	0.5	6.81	15.71	11.86	2.887	0.20	-177.4	18.6	
1009	1.0	6.82	15.05	12.10	2.129	0.19	-200.6	15.3	
1014	1.3	6.82	14.96	12.08	1.932	0.19	-209.2	8.71	very clear
1019	1.7	6.83	14.80	12.00	1.901	0.20	-204.7	5.62	
1024	2.1	6.83	14.78	11.99	1.892	0.21	-203.6	6.83	

MONITORING SAMPLE RECORD

Sample ID	Time Collected	Parameter/Order	Container	Perservative	Collected?
B18-072-PZ	1029	TCL-VOCs	3 - 40 mL VOA	HCl	Y
		TPH-GRO	3 - 40 mL VOA	HCl	
		TPH-DRO	2 - 1 L Amber	none	
		TCL-SVOCs	2- 1 L Amber	none	
		Oil & Grease	1 - 1 L Amber	HCl	
		Total Cyanide	1 - 250 mL Plastic	NaOH	
		TAL-Metals & Mercury (Dissolved) **Field Filtered**	1 - 250 mL Plastic	HNO3	
		Hexavalent Chromium (Dissolved) **Field Filtered**	1 - 250 mL Plastic	None	
Matrix Spike					
Duplicate					

Sampled By: LMG

Comments:

Casing Volume: **1" I.D.** = 0.041 gal/ft - **2" I.D.** = 0.163 gal/ft - **4" I.D.** = 0.653 gal/ft - **6" I.D.** = 1.47 gal/ft

_____ ft x _____ gal/ft = _____ (gal)

Low Flow Sampling
Temporary Piezometers

ARM Group Inc.
Earth Resource Engineers and Consultants

Project Name: Parcel B18 Phase-II	Project Number: 150300M-14-3
Piezometer Number: B18-074-PZ	Date: 12/14/16
Piezometer Diameter (in): 2"	One Well Volume (gal):
Depth to Product (ft): —	QED Controller Settings:
Depth to Water (ft): 12.32 TOC	Flow Rate (mL/min) 300
Product Thickness (ft): —	Length of time Purged (min) ~25
Depth to Bottom (ft):	

PURGING RECORD

Time	Volume Purged (gallons)	DTW (feet)	Temp (°C)	pH (s.u.) ± 0.1	Specific Conductance (ms/cm) ± 3%	Dissolved Oxygen (mg/L) ± 0.3	ORP (mV) ± 10	Turbidity (NTU) ± 10% or < 5	Comments
0856	0.5	12.33	16.42	8.45	2.984	0.22	-261.9	37.0	brown
0901	0.9	12.33	16.55	9.06	2.699	0.17	-216.8	21.9	clear
0906	1.25	12.35	16.42	9.15	2.585	0.15	-224.1	11.21	
0911	1.7	12.35	16.57	9.22	2.527	0.14	-216.7	12.87	
0916	2.1	12.36	16.48	9.30	2.505	0.12	-224.1	9.82	

MONITORING SAMPLE RECORD

Sample ID	Time Collected	Parameter/Order	Container	Perservative	Collected?
B18-074-PZ	0921	TCL-VOCs	3 - 40 mL VOA	HCl	Y
		TPH-GRO	3 - 40 mL VOA	HCl	
		TPH-DRO	2 - 1 L Amber	none	
		TCL-SVOCs	2- 1 L Amber	none	
		Oil & Grease	1 - 1 L Amber	HCl	
		Total Cyanide	1 - 250 mL Plastic	NaOH	
		TAL-Metals & Mercury (Dissolved) **Field Filtered**	1 - 250 mL Plastic	HNO3	
		Hexavalent Chromium (Dissolved) **Field Filtered**	1 - 250 mL Plastic	None	
Matrix Spike					
Duplicate					

Sampled By: LMG

Comments:

Casing Volume: **1" I.D.** = 0.041 gal/ft - **2" I.D.** = 0.163 gal/ft - **4" I.D.** = 0.653 gal/ft - **6" I.D.** = 1.47 gal/ft

_____ft x _____gal/ft = _____(gal)

Low Flow Sampling
Temporary Piezometers

ARM Group Inc.
Earth Resource Engineers and Consultants

Project Name: Parcel B18 Phase II	Project Number: 150300M-14-3
Piezometer Number: B18-075-PZ	Date: 12/14/16
Piezometer Diameter (in): 2"	One Well Volume (gal):
Depth to Product (ft): —	QED Controller Settings:
Depth to Water (ft): 9.13 TOC	Flow Rate (mL/min) 300
Product Thickness (ft): —	Length of time Purged (min) ~30
Depth to Bottom (ft):	

PURGING RECORD

Time	Volume Purged (gallons)	DTW (feet)	Temp (°C)	pH (s.u.) ± 0.1	Specific Conductance (ms/cm) ± 3%	Dissolved Oxygen (mg/L) ± 0.3	ORP (mV) ± 10	Turbidity (NTU) ± 10% or < 5	Comments
0750	0.3	9.13	18.40	5.82	12.89	0.70	9.3	47.6	Cloudy
0755	0.6	9.13	19.02	5.71	11.21	1.79	35.2	65.6	
0800	1.0	9.13	19.23	5.43	10.24	0.93	64.2	57.3	
0805	1.3	9.14	19.25	5.37	9.320	0.59	66.4	24.4	
0810	1.75	9.14	19.31	5.316	9.172	0.49	66.6	17.1	clear
0815	2.1	9.15	19.28	5.43	9.998	0.40	67.2	9.51	

MONITORING SAMPLE RECORD

Sample ID	Time Collected	Parameter/Order	Container	Perservative	Collected?
B18-075-PZ	0820	TCL-VOCs	3 - 40 mL VOA	HCl	Y
		TPH-GRO	3 - 40 mL VOA	HCl	
		TPH-DRO	2 - 1 L Amber	none	
		TCL-SVOCs	2- 1 L Amber	none	
		Oil & Grease	1 - 1 L Amber	HCl	
		Total Cyanide	1 - 250 mL Plastic	NaOH	
		TAL-Metals & Mercury (Dissolved) **Field Filtered**	1 - 250 mL Plastic	HNO3	
		Hexavalent Chromium (Dissolved) **Field Filtered**	1 - 250 mL Plastic	None	
Matrix Spike					
Duplicate					

Sampled By: LMG

Comments:

Casing Volume: **1" I.D.** = 0.041 gal/ft - **2" I.D.** = 0.163 gal/ft - **4" I.D.** = 0.653 gal/ft - **6" I.D.** = 1.47 gal/ft

_____ft x _____gal/ft = _____(gal)

Low Flow Sampling
Temporary Piezometers

ARM Group Inc.
Earth Resource Engineers and Consultants

Project Name: Parcel B1B Phase II	Project Number: 100300M-14-3
Piezometer Number: B1B-076-PZ	Date: 12/13/16
Piezometer Diameter (in): 2"	One Well Volume (gal):
Depth to Product (ft):	QED Controller Settings:
Depth to Water (ft): 7.10	Flow Rate (mL/min) 300
Product Thickness (ft):	Length of time Purged (min) ~35
Depth to Bottom (ft):	

PURGING RECORD

Time	Volume Purged (gallons)	DTW (feet)	Temp (°C)	pH (s.u.) ± 0.1	Specific Conductance (ms/cm) ± 3%	Dissolved Oxygen (mg/L) ± 0.3	ORP (mV) ± 10	Turbidity (NTU) ± 10% or < 5	Comments
1454	0.50	7.12	16.26	8.80	6.013	0.63	-297.0	21.1	
1459	0.9	7.12	16.11	9.37	4.830	0.78	-124.4	16.0	
1504	1.3	7.13	15.91	9.44	4.796	0.92	-105.6	14.2	
1509	1.75	7.13	15.87	9.47	4.703	0.83	-121.9	12.7	
1514	2.1	7.12	15.96	9.50	4.710	0.86	-122.7	8.93	
1519	2.5	7.12	16.41	9.51	4.699	0.81	-122.3	9.21	

MONITORING SAMPLE RECORD

Sample ID	Time Collected	Parameter/Order	Container	Perservative	Collected?
B1B-076-PZ	1525	TCL-VOCs	3 - 40 mL VOA	HCl	Y
		TPH-GRO	3 - 40 mL VOA	HCl	
		TPH-DRO	2 - 1 L Amber	none	
		TCL-SVOCs	2- 1 L Amber	none	
		Oil & Grease	1 - 1 L Amber	HCl	
		Total Cyanide	1 - 250 mL Plastic	NaOH	
		TAL-Metals & Mercury (Dissolved) **Field Filtered**	1 - 250 mL Plastic	HNO3	
		Hexavalent Chromium (Dissolved) **Field Filtered**	1 - 250 mL Plastic	None	
Matrix Spike					
Duplicate					yes

Sampled By: LMG

Comments:

Casing Volume: **1" I.D.** = 0.041 gal/ft - **2" I.D.** = 0.163 gal/ft - **4" I.D.** = 0.653 gal/ft - **6" I.D.** = 1.47 gal/ft

_____ ft x _____ gal/ft = _____ (gal)

Low Flow Sampling

PRZO ~~Permanent Wells~~

ARM Group Inc.
Earth Resource Engineers and Consultants

Project Name: B18 Phase II	Project Number: 150300M-
Well Number: B18-077-PZ	Date: 8/10/17
Well Diameter (in): 1	One Well Volume (gal):
Depth to Product (ft): —	QED Controller Settings:
Depth to Water (ft): 9.32	Flow Rate (mL/min) 150
Product Thickness (ft): —	Length of time Purged (min)
Depth to Bottom (ft): 15.49	Condition of Pad/Cover: /

PURGING RECORD

Time	Volume Purged (gallons)	DTW (feet)	Temp (°C)	pH (s.u.) ± 0.1	Specific Conductance (ms/cm) ± 3%	Dissolved Oxygen (mg/L) ± 0.3	ORP (mV) ± 10	Turbidity (NTU) ± 10% or < 5	Comments
0838	0.2	9.32	22.1	7.33	1.009	1.34	242.6	31.2	
0843	0.4	9.33	22.6	7.45	0.854	1.48	229.0		
0848	0.6	9.33	22.5	7.53	0.829	1.61	211.4		
0853	0.8		22.8	7.61	0.813	1.84	185.4		
0858	1.0		22.7	7.61	0.812	2.02	181.0		
0903	1.2		23.0	7.57	0.795	2.15	171.0	8.5	

MONITORING SAMPLE RECORD

Sample ID	Time Collected	Parameter/Order	Container	Perservative	Collected?
B18-077-PZ	0908	TCL-VOCs	3 - 40 mL VOA	HCl	Y
		TPH-GRO	3 - 40 mL VOA	HCl	Y
		TPH-DRO	2 - 1 L Amber	none	Y
		TCL-SVOCs	2- 1 L Amber	none	Y
		Oil & Grease	2- 1 L Amber	HCl	Y
		TAL-Metals & Mercury (total)	1 - 250 mL Plastic	HNO3	
		Hexavalent Chromium (total)	1 - 250 mL Plastic	none	
		Total Cyanide	1 - 250 mL Plastic	NaOH	Y
		TAL-Metals & Mercury (Dissolved) **Field Filtered**	1 - 250 mL Plastic	HNO3	Y
		Hexavalent Chromium (Dissolved) **Field Filtered**	1 - 250 mL Plastic	none	Y
		PCB	2 - 1 L Amber	None	
Matrix Spike					
Duplicate					

Sampled By: DEN

Comments:

Casing Volume: **1" I.D.** = 0.041 gal/ft - **2" I.D.** = 0.163 gal/ft - **4" I.D.** = 0.653 gal/ft - **6" I.D.** = 1.47 gal/ft

_____ ft x _____ gal/ft = _____ (gal)

TABLE 1
MULTIPARAMETER CALIBRATION LOG

Project Name Area B Parcel B18 Phase II Date 12-13-16
Weather 40s, Sunny
Calibrated by L. Glumac Instrument YSI 556 MPS #19883
Lamotte 2020WE #1840-0412

Parameters	Morning Calibration	Morning Temperature	End of Day Calibration Check	End of Day Temperature
Specific Conductance Standard 1.413 mS/cm	1.413	38 F¥	1.380	41 F¥
Specific Conductance Standard #2	-		-	
pH (7)	7.00		7.13	
pH (4)	4.00		-	
pH(10)	10.03		-	
ORP Zobel Solution	240.1		245.9	
Dissolved Oxygen 100% water saturated air mg/L	-		104.5%	
Dissolved Oxygen Zero Dissolved Oxygen Solution mg/L	10.44		-	
Barometric Pressure in. Hg	30.22		30.16	
Turbidity #1 (0 NTU)	0.0		-0.03¥	
Turbidity #2 (1 NTU)	1.26¥		1.03¥	
Turbidity #3 (10 NTU)	10.00		8.89¥	

¥ Turbidity was outside of the calibration acceptance criteria. Temperature is an estimate. Values displayed on field purge logs may be inaccurate.

TABLE 1
MULTIPARAMETER CALIBRATION LOG

Project Name Area B Parcel B18 Phase II Date 12-14-16
Weather 40s, Sunny to Overcast
Calibrated by L. Glumac Instrument YSI 556 MPS #19883
Lamotte 2020WE #1840-0412

Parameters	Morning Calibration	Morning Temperature	End of Day Calibration Check	End of Day Temperature
Specific Conductance Standard 1.413 mS/cm	1.410	35 F¥	1.383	46 F¥
Specific Conductance Standard #2	-		-	
pH (7)	7.00		-	
pH (4)	4.00		4.06	
pH(10)	10.03		-	
ORP Zobel Solution	240.1		245.3	
Dissolved Oxygen 100% water saturated air mg/L	-		-	
Dissolved Oxygen Zero Dissolved Oxygen Solution mg/L	9.78		9.45	
Barometric Pressure mm Hg	763.778		-	
Turbidity #1 (0 NTU)	0.0		0.24¥	
Turbidity #2 (1 NTU)	1.00		1.23¥	
Turbidity #3 (10 NTU)	10.00		10.13¥	

¥ Turbidity was outside of the calibration acceptance criteria. Temperature is an estimate. Values displayed on field purge logs may be inaccurate.

APPENDIX F

Parcel B18 - IDW Drum Log

Drum Identification Number	Designation	Activity/Phase	Contents	Open Date
730-Liners-10/17/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Liners	10/17/2016
731-Decon Water-10/17/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Water	10/17/2016
732-Nitric-10/17/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Nitric Acid	10/17/2016
733-PPE-10/17/16-B18	Non-Haz	Parcel B18 Phase II Investigation	PPE	10/17/2016
734-Soil-10/17/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Soil	10/17/2016
735-Soil-10/21/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Soil	10/21/2016
736-Liners-10/24/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Liners	10/24/2016
737-PPE-10/24/16-B18	Non-Haz	Parcel B18 Phase II Investigation	PPE	10/24/2016
738-Soil-10/26/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Soil	10/26/2016
739-PPE-10/26/16-B18	Non-Haz	Parcel B18 Phase II Investigation	PPE	10/26/2016
755-Soil-11/28/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Soil	11/28/116
759-Purge Water-12/9/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Water	12/9/2016
760-Purge Water-12/9/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Water	12/9/2016
761-Purge Water-12/9/16-B18	Non-Haz	Parcel B18 Phase II Investigation	Water	12/9/2016
762-PPE-12/9/16-B18	Non-Haz	Parcel B18 Phase II Investigation	PPE	12/9/2016

APPENDIX G

NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	10/17/2016			10/18/2016			10/19/2016		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NA	NA	NA	NA	NA	NA	-	9.97	-
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NA	NA	NA	-	12.63	-	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NA	NA	NA	-	dry	-	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10	-	12.58	-	NM	NM	NM	-	12.57	-
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable
NM = Not Measured
TOC = Top of Casing
bgs = below ground surface
* Piezometer observed to have been destroyed
Pink = LNAPL Detection
Blue = DNAPL Detection
Purple = LNAPL & DNAPL Detection

NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	10/20/2016			10/21/2016			10/24/2016		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NM	NM	NM	-	10.06	-	NM	NM	NM
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NA	NA	NA	-	9.29	-	-	9.40	-
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	-	4.72	-	NM	NM	NM	-	9.14	-
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	-	7.81	-	NM	NM	NM	**7.62**	**8.90**	**1.28**
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	-	12.74	-	NM	NM	NM	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

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NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	10/26/2016			10/28/2016			11/2/2016		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	-	9.46	-	NM	NM	NM	-	9.43	-
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	**8.92**	**10.58**	**1.66**	NM	NM	NM	**9.00**	**13.87**	**4.87**
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	**trace**	**12.60**	**trace**	**trace**	**13.67**	**trace**	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

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NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	11/11/2016			11/18/2016			11/21/2016		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NM	NM	NM	NM	NM	NM	-	10.67	-
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM	-	9.94	-
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	-	9.45	-	NM	NM	NM	-	3.03	-
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	**9.20**	**8.25**	**5.75**	NM	NM	NM	**9.10**	**-**	**5.85**
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	-	13.23	-	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	-	dry	-	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10	NM	NM	NM	* Destroyed					
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

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NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	11/28/2016			11/30/2016			12/2/2016		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	-	8.12	-	NM	NM	NM	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10									
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NA	NA	NA	-	12.36	-	-	12.36	-
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Blue = DNAPL Detection
Purple = LNAPL & DNAPL Detection

NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	12/16/2016			12/22/2016			12/29/2016		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	NM	NM	NM	NM	NM	NM	-	5.62	-
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	**11.90**	**7.85**	**3.05**	**12.90**	**6.75**	**2.05**	**9.65**	**6.43**	**5.30**
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10									
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Purple = LNAPL & DNAPL Detection

NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	1/3/2017			1/20/2017			1/27/2017		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	NM	NM	NM	-	4.99	-	NM	NM	NM
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	NM	NM	NM	**10.80**	**6.15**	**4.15**	**5.71**	**7.40**	**1.69**
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10									
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	-	12.27	-	NM	NM	NM	NM	NM	NM
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TOC = Top of Casing
bgs = below ground surface
* Piezometer observed to have been destroyed
Pink = LNAPL Detection
Blue = DNAPL Detection
Purple = LNAPL & DNAPL Detection

NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	2/9/2017			2/23/2017			3/29/2017		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	NM	NM	NM	-	5.73	-	NM	NM	NM
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	**12.39**	**6.78**	**2.56**	**trace**	**6.39**	**trace**	**11.55**	**8.00**	**3.40**
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10									
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

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NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	4/6/2017			4/13/2017			4/20/2017		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	**11.41**	**7.89**	**3.54**	**11.73**	**8.31**	**3.22**	**14.10**	**8.33**	**0.85**
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10									
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

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NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	4/24/2017			5/4/2017			5/24/2017		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NM	NM	NM	NM	NM	NM	-	9.70	-
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	NM	NM	NM	NM	NM	NM	-	7.10	-
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	**14.08**	**8.34**	**0.87**	**13.80**	**8.29**	**1.15**	-	9.40	-
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	NM	NM	NM	**trace**	**13.10**	**trace**
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	NM	NM	NM	-	12.20	-
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10									
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NM	NM	NM	NM	NM	NM	-	12.75	-
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

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NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	5/30/2017			6/8/2017			6/15/2017		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	-	9.52	-	NM	NM	NM	NM	NM	NM
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	-	4.64	-	NM	NM	NM	NM	NM	NM
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	**8.05**	**8.30**	**0.25**	**14.40**	**8.10**	**0.55**	**14.60**	**8.65**	**0.35**
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	-	12.59	-	NM	NM	NM	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	-	12.74	-	NM	NM	NM	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10									
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	-	12.74	-	NM	NM	NM	NM	NM	NM
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA

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bgs = below ground surface
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Pink = LNAPL Detection
Blue = DNAPL Detection
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NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	6/20/2017			6/26/2017			6/28/2017		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	NA	NA	NA	NA	NA	NA
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	**9.12**	**8.27**	**5.83**	**9.18**	**8.30**	**5.77**	NM	NM	NM
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10									
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NM	NM	NM	NM	NM	NM	NM	NM	NM
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NA	NA	NA	NA	NA	NA	**trace**	**9.16**	**trace**

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NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	8/10/2017			1/17/2019		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10	* Destroyed					
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	NA	NA	NA	-	9.27	-
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	NM	NM	NM
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	NM	NM	NM	NM	NM	NM
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	NM	NM	NM	NM	NM	NM
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NM	NM	NM	NM	NM	NM
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	NM	NM	NM
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	NM	NM	NM
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10						
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NM	NM	NM	NM	NM	NM
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	-	9.32	-	NM	NM	NM

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NAPL Gauging Activities
Parcel B18
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Installation Date	Abandonment Date	Well Total Depth (ft. bgs)	Screen Interval (ft. bgs)	Riser Stick-Up (ft.)	1/21/2019			11/6/2019		
						Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)	Depth to NAPL (ft. TOC)	Depth to Water (ft. TOC)	NAPL Thickness (ft.)
B18-017-PZ	10/19/2016	7/26/2017*	14	4-14	3.10						
B18-017-PZ (reinstallation)	1/17/2019	NA	14	4-14	2.96	-	8.96	-	-	7.36	-
B18-034-PZ	10/21/2016	11/6/2019*	14	4-14	3.05	NM	NM	NM	* Destroyed		
B18-044-PZ	10/20/2016	NA	12.5	2.5-12.5	3.08	NM	NM	NM	**trace**	**5.28**	**trace**
B18-045-PZ	10/20/2016	NA	12	2-12	2.95	NM	NM	NM	**trace LNAPL and 7.90 DNAPL**	**7.65**	**7.05**
B18-046-PZ	10/26/2016	NA	17	7-17	3.18	NM	NM	NM	-	12.04	-
B18-047-PZ	10/18/2016	NA	12.5	2.5-12.5	3.22	NM	NM	NM	-	12.40	-
B18-059-PZ	10/18/2016	11/6/2019*	9	4-9	3.30	NM	NM	NM	* Destroyed		
B18-074-PZ	10/17/2016	11/18/2016*	13.5	3.5-13.5	3.10						
B18-074-PZ (reinstallation)	11/30/2016	NA	16	6-16	3.05	NM	NM	NM	-	13.21	-
B18-077-PZ	6/28/2017	NA	13	3-13	3.10	NM	NM	NM	-	9.36	-

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Purple = LNAPL & DNAPL Detection

APPENDIX H

QA/QC Tracking Log

Trip Blank:	Date:	Sample IDs:		
	10/17/2016	1) B18-001-SB-1		
X		2) B18-001-SB-4		
		3) B18-074-SB-1		
X		4) B18-074-SB-9		
		5) B18-076-SB-1		
		6) B18-006-SB-1		
X		7) B18-039-SB-1	Duplicate:	B18-039-SB-4
		8) B18-039-SB-4	Date:	10/17/2016
X		9) B18-027-SB-1	MS/MSD:	B18-027-SB-7
		10) B18-027-SB-7	Date:	10/17/2016
		11) B18-060-SB-1	Field Blank:	
		12) B18-060-SB-5	Date:	10/17/2016
		13) B18-040-SB-1	Eq. Blank:	
X		14) B18-040-SB-8	Date:	10/17/2016
	10/18/2016	15) B18-028-SB-1.5		
X		16) B18-028-SB-7		
X		17) B18-030-SB-1.5		
X		18) B18-030-SB-6		
X		19) B18-029-SB-2		
X		20) B18-029-SB-4		

Trip Blank:	Date:	Sample IDs:		
X	10/19/2016	1) B18-018-SB-7		
		2) B18-017-SB-1		
X		3) B18-017-SB-7.5		
		4) B18-057-SB-1		
X		5) B18-057-SB-4		
	10/20/2016	6) B18-058-SB-1		
X		7) B18-037-SB-1	Duplicate:	B18-038-SB-1
X		8) B18-037-SB-5	Date:	10/20/2016
X		9) B18-038-SB-1	MS/MSD:	B18-049-SB-1
		10) B18-049-SB-1	Date:	10/20/2016
X		11) B18-049-SB-4	Field Blank:	
		12) B18-050-SB-1	Date:	10/19/2016
		13) B18-050-SB-5	Eq. Blank:	
X		14) B18-041-SB-1	Date:	10/19/2016
		15) B18-041-SB-7.5		
X	10/21/2016	16) B18-042-SB-1		
X		17) B18-042-SB-5		
		18) B18-043-SB-1		
		19) B18-043-SB-5		
		20) B18-069-SB-1		

Trip Blank:	Date:	Sample IDs:		
X	10/18/2016	1) B18-047-SB-1		
X		2) B18-047-SB-4		
		3) B18-048-SB-2		
X		4) B18-048-SB-4		
		5) B18-059-SB-1		
X		6) B18-059-SB-7.5		
		7) B18-031-SB-1	Duplicate:	B18-026-SB-1
X		8) B18-031-SB-6	Date:	10/19/2016
		9) B18-032-SB-1.5	MS/MSD:	B18-032-SB-1.5
		10) B18-032-SB-6	Date:	10/18/2016
X	10/19/2016	11) B18-009-SB-1	Field Blank:	
X		12) B18-009-SB-4	Date:	10/18/2016
X		13) B18-010-SB-1	Eq. Blank:	
		14) B18-010-SB-6	Date:	10/18/2016
X		15) B18-026-SB-1		
		16) B18-026-SB-4		
X		17) B18-025-SB-1		
		18) B18-025-SB-5		
		19) B18-008-SB-1		
		20) B18-018-SB-1		

Trip Blank:	Date:	Sample IDs:		
X	10/21/2016	1) B18-069-SB-8		
		2) B18-068-SB-1		
X		3) B18-068-SB-9		
		4) B18-033-SB-1		
		5) B18-034-SB-1		
X		6) B18-034-SB-5		
		7) B18-016-SB-1	Duplicate:	B18-034-SB-5
		8) B18-015-SB-1	Date:	10/21/2016
	10/24/2016	9) B18-013-SB-1	MS/MSD:	B18-066-SB-1
		10) B18-013-SB-4	Date:	10/24/2016
		11) B18-014-SB-1	Field Blank:	
		12) B18-014-SB-5	Date:	10/21/2016
		13) B18-023-SB-1	Eq. Blank:	
		14) B18-023-SB-6	Date:	10/21/2016
		15) B18-024-SB-1		
		16) B18-024-SB-4		
		17) B18-073-SB-1		
		18) B18-073-SB-5		
		19) B18-073-SB-10		
		20) B18-066-SB-1		

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

QA/QC Tracking Log

Trip Blank:	Date:	Sample IDs:		
	10/24/2016	1) B18-066-SB-4		
		2) B18-067-SB-1		
X		3) B18-067-SB-4		
		4) B18-052-SB-1		
		5) B18-051-SB-1		
	10/25/2016	6) B18-021-SB-1		
		7) B18-021-SB-4	Duplicate:	B18-053-SB-5
		8) B18-053-SB-1	Date:	10/25/2016
		9) B18-053-SB-5	MS/MSD:	B18-054-SB-5
		10) B18-055-SB-1	Date:	10/25/2016
		11) B18-055-SB-5	Field Blank:	
		12) B18-056-SB-1	Date:	10/24/2016
		13) B18-054-SB-1	Eq. Blank:	
		14) B18-054-SB-5	Date:	10/24/2016
		15) B18-036-SB-1		
		16) B18-036-SB-5		
X		17) B18-035-SB-1		
X		18) B18-035-SB-4		
		19) B18-002-SB-1		
		20) B18-011-SB-1		

Trip Blank:	Date:	Sample IDs:		
	10/27/2016	1) B18-005-SB-1		
		2) B18-075-SB-2		
	12/1/2016	3) B18-075-SB-5.5	Split Spoon	
		4) B18-075-SB-10	Split Spoon	
		5)		
		6)		
		7)	Duplicate:	B18-075-SB-2
		8)	Date:	10/27/2016
		9)	MS/MSD:	
		10)	Date:	
		11)	Field Blank:	
		12)	Date:	10/27/2016
		13)	Eq. Blank:	
		14)	Date:	10/27/2016
		15)		
		16)		
		17)		
		18)		
		19)		
		20)		

	10/25/2016	1) B18-011-SB-4		
		2) B18-012-SB-1		
	10/26/2016	3) B18-004-SB-1		
		4) B18-003-SB-1		
		5) B18-070-SB-1		
X		6) B18-070-SB-5		
		7) B18-071-SB-1	Duplicate:	B18-072-SB-1
		8) B18-071-SB-5	Date:	10/26/2016
		9) B18-072-SB-1	MS/MSD:	B18-061-SB-1
		10) B18-072-SB-4	Date:	10/26/2016
		11) B18-046-SB-1	Field Blank:	
X		12) B18-046-SB-8	Date:	10/25/2016
X		13) B18-061-SB-1	Eq. Blank:	
X		14) B18-061-SB-4	Date:	10/25/2016
X	10/27/2016	15) B18-007-SB-1		
		16) B18-007-SB-4		
		17) B18-020-SB-11		
		18) B18-020-SB-14		
X		19) B18-019-SB-8		
X		20) B18-019-SB-11		

	6/28/2017	1) B18-077-SB-1		
		2) B18-077-SB-4.5		
		3)		
		4)		
		5)		
		6)		
		7)	Duplicate:	B18-077-SB-1
		8)	Date:	6/28/2017
		9)	MS/MSD:	B18-077-SB-4.5
		10)	Date:	6/28/2017
		11)	Field Blank:	
		12)	Date:	6/28/2017
		13)	Eq. Blank:	
		14)	Date:	6/28/2017
		15)		
		16)		
		17)		
		18)		
		19)		
		20)		

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

QA/QC Tracking Log

Trip Blank:	Date:	Sample IDs:		
X	12/13/2016	1) B18-007-PZ		
		2) B18-061-PZ		
		3) B18-046-PZ		
		4) B18-076-PZ		
X	12/14/2016	5) B18-075-PZ		
		6) B18-074-PZ		
		7) B18-072-PZ	Duplicate:	B18-076-PZ
		8) B18-070-PZ	Date:	12/13/2016
		9) B18-071-PZ	MS/MSD:	B18-070-PZ
	12/15/2016	10) B18-071-PZ	Date:	12/14/2016
X	8/10/2017	11) B18-077-PZ	Field Blank:	
		12)	Date:	12/13/2016
		13)	Eq. Blank:	
		14)	Date:	
		15)		
		16)		
		17)		
		18)		
		19)		
		20)		

Trip Blank:	Date:	Sample IDs:	
		1)	
		2)	
		3)	
		4)	
		5)	
		6)	
		7)	Duplicate:
		8)	Date:
		9)	MS/MSD:
		10)	Date:
		11)	Field Blank:
		12)	Date:
		13)	Eq. Blank:
		14)	Date:
		15)	
		16)	
		17)	
		18)	
		19)	
		20)	

N/A	9/21/2016	1) B18-062-SG		
		2) B18-064-SG		
		3) B18-065-SG		
N/A	9/28/2016	4) B18-063-SG		
		5)		
		6)		
		7)	Duplicate:	B18-063-SG
		8)	Date:	9/28/2016
		9)	MS/MSD:	N/A
		10)	Date:	
		11)	Field Blank:	
		12)	Date:	9/21/2016
		13)	Eq. Blank:	
		14)	Date:	9/21/2016
		15)		
		16)		
		17)		
		18)		
		19)		
		20)		

Trip Blank:	Date:	Sample IDs:	
		1)	
		2)	
		3)	
		4)	
		5)	
		6)	
		7)	Duplicate:
		8)	Date:
		9)	MS/MSD:
		10)	Date:
		11)	Field Blank:
		12)	Date:
		13)	Eq. Blank:
		14)	Date:
		15)	
		16)	
		17)	
		18)	
		19)	
		20)	

APPENDIX I

EVALUATION OF DATA COMPLETENESS
Percentage of Non-Rejected Results vs. Total Results

Parameter	Parameter Group	Matrix	Unit	Number of Validated Results	Detections	Number of Rejected Results	Number of Non-rejected Results	Completeness
1,1,1-Trichloroethane	VOC	Air	ug/m^3	3	2	0	3	100.00%
1,1,2,2-Tetrachloroethane	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,1,2-Trichloroethane	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,1-Dichloroethane	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,1-Dichloroethene	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,2,3-Trichlorobenzene	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,2,4-Trichlorobenzene	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,2-Dibromo-3-chloropropane	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,2-Dibromoethane	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,2-Dichlorobenzene	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,2-Dichloroethane	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,2-Dichloroethene (Total)	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,2-Dichloropropane	VOC	Air	ug/m^3	3	0	0	3	100.00%
1,4-Dichlorobenzene	VOC	Air	ug/m^3	3	0	0	3	100.00%
2-Butanone (MEK)	VOC	Air	ug/m^3	3	3	0	3	100.00%
4-Methyl-2-pentanone (MIBK)	VOC	Air	ug/m^3	3	0	0	3	100.00%
Acetone	VOC	Air	ug/m^3	3	1	0	3	100.00%
Benzene	VOC	Air	ug/m^3	3	3	0	3	100.00%
Bromodichloromethane	VOC	Air	ug/m^3	3	1	0	3	100.00%
Bromoform	VOC	Air	ug/m^3	3	0	0	3	100.00%
Bromomethane	VOC	Air	ug/m^3	3	0	0	3	100.00%
Carbon disulfide	VOC	Air	ug/m^3	3	3	0	3	100.00%
Carbon tetrachloride	VOC	Air	ug/m^3	3	0	0	3	100.00%
Chlorobenzene	VOC	Air	ug/m^3	3	0	0	3	100.00%
Chloroethane	VOC	Air	ug/m^3	3	3	0	3	100.00%
Chloroform	VOC	Air	ug/m^3	3	3	0	3	100.00%
Chloromethane	VOC	Air	ug/m^3	3	3	0	3	100.00%
cis-1,2-Dichloroethene	VOC	Air	ug/m^3	3	0	0	3	100.00%
cis-1,3-Dichloropropene	VOC	Air	ug/m^3	3	0	0	3	100.00%
Dibromochloromethane	VOC	Air	ug/m^3	3	0	0	3	100.00%
Ethylbenzene	VOC	Air	ug/m^3	3	2	0	3	100.00%
Isopropylbenzene	VOC	Air	ug/m^3	3	0	0	3	100.00%
Methyl tert-butyl ether (MTBE)	VOC	Air	ug/m^3	3	0	0	3	100.00%
Methylene Chloride	VOC	Air	ug/m^3	3	2	0	3	100.00%
Styrene	VOC	Air	ug/m^3	3	0	0	3	100.00%
Tetrachloroethene	VOC	Air	ug/m^3	3	0	0	3	100.00%
Toluene	VOC	Air	ug/m^3	3	3	0	3	100.00%
trans-1,2-Dichloroethene	VOC	Air	ug/m^3	3	0	0	3	100.00%
trans-1,3-Dichloropropene	VOC	Air	ug/m^3	3	0	0	3	100.00%
Trichloroethene	VOC	Air	ug/m^3	3	0	0	3	100.00%
Vinyl chloride	VOC	Air	ug/m^3	3	3	0	3	100.00%
Xylenes	VOC	Air	ug/m^3	3	3	0	3	100.00%
1,4-Dioxane	VOC/SVOC	Air	ug/m^3	3	0	0	3	100.00%
Cyanide	CN	Soil	mg/kg	72	69	0	72	100.00%
Aluminum	Metal	Soil	mg/kg	72	72	0	72	100.00%
Antimony	Metal	Soil	mg/kg	72	6	0	72	100.00%
Arsenic	Metal	Soil	mg/kg	72	41	0	72	100.00%
Barium	Metal	Soil	mg/kg	72	72	0	72	100.00%
Beryllium	Metal	Soil	mg/kg	72	52	0	72	100.00%
Cadmium	Metal	Soil	mg/kg	72	41	0	72	100.00%

EVALUATION OF DATA COMPLETENESS
Percentage of Non-Rejected Results vs. Total Results

Parameter	Parameter Group	Matrix	Unit	Number of Validated Results	Detections	Number of Rejected Results	Number of Non-rejected Results	Completeness
Chromium	Metal	Soil	mg/kg	72	71	0	72	100.00%
Chromium VI	Metal	Soil	mg/kg	72	13	0	72	100.00%
Cobalt	Metal	Soil	mg/kg	72	57	0	72	100.00%
Copper	Metal	Soil	mg/kg	72	72	0	72	100.00%
Iron	Metal	Soil	mg/kg	72	72	0	72	100.00%
Lead	Metal	Soil	mg/kg	72	68	0	72	100.00%
Manganese	Metal	Soil	mg/kg	72	72	0	72	100.00%
Mercury	Metal	Soil	mg/kg	72	46	0	72	100.00%
Nickel	Metal	Soil	mg/kg	72	68	0	72	100.00%
Selenium	Metal	Soil	mg/kg	72	14	0	72	100.00%
Silver	Metal	Soil	mg/kg	72	40	0	72	100.00%
Thallium	Metal	Soil	mg/kg	72	31	0	72	100.00%
Vanadium	Metal	Soil	mg/kg	72	72	0	72	100.00%
Zinc	Metal	Soil	mg/kg	72	69	0	72	100.00%
Aroclor 1016	PCB	Soil	mg/kg	40	0	0	40	100.00%
Aroclor 1221	PCB	Soil	mg/kg	40	0	0	40	100.00%
Aroclor 1232	PCB	Soil	mg/kg	40	0	0	40	100.00%
Aroclor 1242	PCB	Soil	mg/kg	40	0	0	40	100.00%
Aroclor 1248	PCB	Soil	mg/kg	40	1	0	40	100.00%
Aroclor 1254	PCB	Soil	mg/kg	40	3	0	40	100.00%
Aroclor 1260	PCB	Soil	mg/kg	40	4	0	40	100.00%
Aroclor 1262	PCB	Soil	mg/kg	40	0	0	40	100.00%
Aroclor 1268	PCB	Soil	mg/kg	40	0	0	40	100.00%
PCBs (total)	PCB	Soil	mg/kg	40	5	0	40	100.00%
1,1-Biphenyl	SVOC	Soil	mg/kg	72	29	0	72	100.00%
1,2,4,5-Tetrachlorobenzene	SVOC	Soil	mg/kg	72	0	0	72	100.00%
2,3,4,6-Tetrachlorophenol	SVOC	Soil	mg/kg	72	0	37	35	48.61%
2,4,5-Trichlorophenol	SVOC	Soil	mg/kg	72	0	37	35	48.61%
2,4,6-Trichlorophenol	SVOC	Soil	mg/kg	72	0	37	35	48.61%
2,4-Dichlorophenol	SVOC	Soil	mg/kg	72	1	37	35	48.61%
2,4-Dimethylphenol	SVOC	Soil	mg/kg	72	16	30	42	58.33%
2,4-Dinitrophenol	SVOC	Soil	mg/kg	72	0	38	34	47.22%
2,4-Dinitrotoluene	SVOC	Soil	mg/kg	72	1	1	71	98.61%
2,6-Dinitrotoluene	SVOC	Soil	mg/kg	72	2	0	72	100.00%
2-Chloronaphthalene	SVOC	Soil	mg/kg	72	1	0	72	100.00%
2-Chlorophenol	SVOC	Soil	mg/kg	72	1	37	35	48.61%
2-Methylnaphthalene	SVOC	Soil	mg/kg	72	62	0	72	100.00%
2-Methylphenol	SVOC	Soil	mg/kg	72	14	31	41	56.94%
2-Nitroaniline	SVOC	Soil	mg/kg	72	1	0	72	100.00%
3&4-Methylphenol(m&p Cresol)	SVOC	Soil	mg/kg	72	18	31	41	56.94%
3,3'-Dichlorobenzidine	SVOC	Soil	mg/kg	72	1	1	71	98.61%
4-Chloroaniline	SVOC	Soil	mg/kg	72	0	0	72	100.00%
4-Nitroaniline	SVOC	Soil	mg/kg	72	0	1	71	98.61%
Acenaphthene	SVOC	Soil	mg/kg	72	43	0	72	100.00%
Acenaphthylene	SVOC	Soil	mg/kg	72	56	0	72	100.00%
Acetophenone	SVOC	Soil	mg/kg	72	15	0	72	100.00%
Anthracene	SVOC	Soil	mg/kg	72	65	0	72	100.00%
Benz[a]anthracene	SVOC	Soil	mg/kg	72	67	0	72	100.00%
Benzaldehyde	SVOC	Soil	mg/kg	72	16	15	57	79.17%
Benzo[a]pyrene	SVOC	Soil	mg/kg	72	65	0	72	100.00%
Benzo[b]fluoranthene	SVOC	Soil	mg/kg	72	70	0	72	100.00%
Benzo[g,h,i]perylene	SVOC	Soil	mg/kg	72	65	0	72	100.00%
Benzo[k]fluoranthene	SVOC	Soil	mg/kg	72	69	0	72	100.00%
bis(2-chloroethoxy)methane	SVOC	Soil	mg/kg	72	1	0	72	100.00%
bis(2-Chloroethyl)ether	SVOC	Soil	mg/kg	72	0	0	72	100.00%
bis(2-Chloroisopropyl)ether	SVOC	Soil	mg/kg	72	0	0	72	100.00%
bis(2-Ethylhexyl)phthalate	SVOC	Soil	mg/kg	72	11	0	72	100.00%
Caprolactam	SVOC	Soil	mg/kg	72	8	0	72	100.00%
Carbazole	SVOC	Soil	mg/kg	72	37	0	72	100.00%

EVALUATION OF DATA COMPLETENESS
Percentage of Non-Rejected Results vs. Total Results

Parameter	Parameter Group	Matrix	Unit	Number of Validated Results	Detections	Number of Rejected Results	Number of Non-rejected Results	Completeness
Chrysene	SVOC	Soil	mg/kg	72	69	0	72	100.00%
Dibenz[a,h]anthracene	SVOC	Soil	mg/kg	72	56	0	72	100.00%
Diethylphthalate	SVOC	Soil	mg/kg	72	0	0	72	100.00%
Di-n-butylphthalate	SVOC	Soil	mg/kg	72	2	0	72	100.00%
Di-n-ocytlphthalate	SVOC	Soil	mg/kg	72	1	0	72	100.00%
Fluoranthene	SVOC	Soil	mg/kg	72	69	0	72	100.00%
Fluorene	SVOC	Soil	mg/kg	72	52	0	72	100.00%
Hexachlorobenzene	SVOC	Soil	mg/kg	72	0	0	72	100.00%
Hexachlorobutadiene	SVOC	Soil	mg/kg	72	0	0	72	100.00%
Hexachlorocyclopentadiene	SVOC	Soil	mg/kg	72	0	1	71	98.61%
Hexachloroethane	SVOC	Soil	mg/kg	72	0	0	72	100.00%
Indeno[1,2,3-c,d]pyrene	SVOC	Soil	mg/kg	72	63	0	72	100.00%
Isophorone	SVOC	Soil	mg/kg	72	0	0	72	100.00%
Naphthalene	SVOC	Soil	mg/kg	72	60	0	72	100.00%
Nitrobenzene	SVOC	Soil	mg/kg	72	0	0	72	100.00%
N-Nitroso-di-n-propylamine	SVOC	Soil	mg/kg	72	0	0	72	100.00%
N-Nitrosodiphenylamine	SVOC	Soil	mg/kg	72	0	0	72	100.00%
Pentachlorophenol	SVOC	Soil	mg/kg	72	0	37	35	48.61%
Phenanthrene	SVOC	Soil	mg/kg	72	65	0	72	100.00%
Phenol	SVOC	Soil	mg/kg	72	16	30	42	58.33%
Pyrene	SVOC	Soil	mg/kg	72	68	0	72	100.00%
Diesel Range Organics	TPH	Soil	mg/kg	72	72	0	72	100.00%
Gasoline Range Organics	TPH	Soil	mg/kg	72	2	0	72	100.00%
Oil and Grease	TPH	Soil	mg/kg	72	72	0	72	100.00%
1,1,1-Trichloroethane	VOC	Soil	mg/kg	29	1	0	29	100.00%
1,1,2,2-Tetrachloroethane	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,1,2-Trichloro-1,2,2-Trifluoroethane	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,1,2-Trichloroethane	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,1-Dichloroethane	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,1-Dichloroethene	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,2,3-Trichlorobenzene	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,2,4-Trichlorobenzene	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,2-Dibromo-3-chloropropane	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,2-Dibromoethane	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,2-Dichlorobenzene	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,2-Dichloroethane	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,2-Dichloroethene (Total)	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,2-Dichloropropane	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,3-Dichlorobenzene	VOC	Soil	mg/kg	29	0	0	29	100.00%
1,4-Dichlorobenzene	VOC	Soil	mg/kg	29	0	0	29	100.00%
2-Butanone (MEK)	VOC	Soil	mg/kg	29	6	0	29	100.00%
2-Hexanone	VOC	Soil	mg/kg	29	0	0	29	100.00%
4-Methyl-2-pentanone (MIBK)	VOC	Soil	mg/kg	29	0	0	29	100.00%
Acetone	VOC	Soil	mg/kg	29	17	0	29	100.00%
Benzene	VOC	Soil	mg/kg	29	10	0	29	100.00%
Bromodichloromethane	VOC	Soil	mg/kg	29	1	0	29	100.00%
Bromoform	VOC	Soil	mg/kg	29	0	0	29	100.00%
Bromomethane	VOC	Soil	mg/kg	29	0	5	24	82.76%
Carbon disulfide	VOC	Soil	mg/kg	29	0	0	29	100.00%
Carbon tetrachloride	VOC	Soil	mg/kg	29	0	0	29	100.00%
Chlorobenzene	VOC	Soil	mg/kg	29	0	0	29	100.00%
Chloroethane	VOC	Soil	mg/kg	29	0	0	29	100.00%
Chloroform	VOC	Soil	mg/kg	29	3	0	29	100.00%
Chloromethane	VOC	Soil	mg/kg	29	0	0	29	100.00%
cis-1,2-Dichloroethene	VOC	Soil	mg/kg	29	0	0	29	100.00%
cis-1,3-Dichloropropene	VOC	Soil	mg/kg	29	0	0	29	100.00%
Cyclohexane	VOC	Soil	mg/kg	29	2	0	29	100.00%
Dibromochloromethane	VOC	Soil	mg/kg	29	0	0	29	100.00%
Dichlorodifluoromethane	VOC	Soil	mg/kg	29	0	0	29	100.00%

EVALUATION OF DATA COMPLETENESS
Percentage of Non-Rejected Results vs. Total Results

Parameter	Parameter Group	Matrix	Unit	Number of Validated Results	Detections	Number of Rejected Results	Number of Non-rejected Results	Completeness
Ethylbenzene	VOC	Soil	mg/kg	29	2	0	29	100.00%
Isopropylbenzene	VOC	Soil	mg/kg	29	0	0	29	100.00%
Methyl Acetate	VOC	Soil	mg/kg	29	0	0	29	100.00%
Methyl tert-butyl ether (MTBE)	VOC	Soil	mg/kg	29	0	0	29	100.00%
Methylene Chloride	VOC	Soil	mg/kg	29	0	0	29	100.00%
Styrene	VOC	Soil	mg/kg	29	2	0	29	100.00%
Tetrachloroethene	VOC	Soil	mg/kg	29	1	0	29	100.00%
Toluene	VOC	Soil	mg/kg	29	8	0	29	100.00%
trans-1,2-Dichloroethene	VOC	Soil	mg/kg	29	0	0	29	100.00%
trans-1,3-Dichloropropene	VOC	Soil	mg/kg	29	0	0	29	100.00%
Trichloroethene	VOC	Soil	mg/kg	29	0	0	29	100.00%
Trichlorofluoromethane	VOC	Soil	mg/kg	29	0	0	29	100.00%
Vinyl chloride	VOC	Soil	mg/kg	29	0	0	29	100.00%
Xylenes	VOC	Soil	mg/kg	29	6	0	29	100.00%
1,4-Dioxane	VOC/SVOC	Soil	mg/kg	29	0	29	0	0.00%
Cyanide	CN	Water	ug/L	5	3	0	5	100.00%
Aluminum	Metal	Water	ug/L	5	5	0	5	100.00%
Antimony	Metal	Water	ug/L	5	0	0	5	100.00%
Arsenic	Metal	Water	ug/L	5	1	0	5	100.00%
Barium	Metal	Water	ug/L	5	5	0	5	100.00%
Beryllium	Metal	Water	ug/L	5	2	0	5	100.00%
Cadmium	Metal	Water	ug/L	5	2	0	5	100.00%
Chromium	Metal	Water	ug/L	5	2	0	5	100.00%
Chromium VI	Metal	Water	ug/L	5	0	0	5	100.00%
Cobalt	Metal	Water	ug/L	5	2	0	5	100.00%
Copper	Metal	Water	ug/L	5	2	0	5	100.00%
Iron	Metal	Water	ug/L	5	4	0	5	100.00%
Lead	Metal	Water	ug/L	5	0	0	5	100.00%
Manganese	Metal	Water	ug/L	5	4	0	5	100.00%
Mercury	Metal	Water	ug/L	5	0	0	5	100.00%
Nickel	Metal	Water	ug/L	5	5	0	5	100.00%
Selenium	Metal	Water	ug/L	5	0	0	5	100.00%
Silver	Metal	Water	ug/L	5	1	0	5	100.00%
Thallium	Metal	Water	ug/L	5	0	0	5	100.00%
Vanadium	Metal	Water	ug/L	5	2	0	5	100.00%
Zinc	Metal	Water	ug/L	5	2	0	5	100.00%
1,1-Biphenyl	SVOC	Water	ug/L	5	1	0	5	100.00%
1,2,4,5-Tetrachlorobenzene	SVOC	Water	ug/L	5	0	0	5	100.00%
2,3,4,6-Tetrachlorophenol	SVOC	Water	ug/L	5	0	0	5	100.00%
2,4,5-Trichlorophenol	SVOC	Water	ug/L	5	0	0	5	100.00%
2,4,6-Trichlorophenol	SVOC	Water	ug/L	5	0	0	5	100.00%
2,4-Dichlorophenol	SVOC	Water	ug/L	5	0	0	5	100.00%
2,4-Dimethylphenol	SVOC	Water	ug/L	5	0	0	5	100.00%
2,4-Dinitrophenol	SVOC	Water	ug/L	5	1	0	5	100.00%
2,4-Dinitrotoluene	SVOC	Water	ug/L	5	0	0	5	100.00%
2,6-Dinitrotoluene	SVOC	Water	ug/L	5	0	0	5	100.00%
2-Chloronaphthalene	SVOC	Water	ug/L	5	0	0	5	100.00%
2-Chlorophenol	SVOC	Water	ug/L	5	0	0	5	100.00%
2-Methylnaphthalene	SVOC	Water	ug/L	5	3	0	5	100.00%
2-Methylphenol	SVOC	Water	ug/L	5	1	0	5	100.00%
2-Nitroaniline	SVOC	Water	ug/L	5	0	0	5	100.00%
3&4-Methylphenol(m&p Cresol)	SVOC	Water	ug/L	5	1	0	5	100.00%
3,3'-Dichlorobenzidine	SVOC	Water	ug/L	5	0	0	5	100.00%
4-Chloroaniline	SVOC	Water	ug/L	5	0	0	5	100.00%
4-Nitroaniline	SVOC	Water	ug/L	5	0	0	5	100.00%
Acenaphthene	SVOC	Water	ug/L	5	4	0	5	100.00%
Acenaphthylene	SVOC	Water	ug/L	5	4	0	5	100.00%
Acetophenone	SVOC	Water	ug/L	5	1	0	5	100.00%
Anthracene	SVOC	Water	ug/L	5	5	0	5	100.00%

EVALUATION OF DATA COMPLETENESS
Percentage of Non-Rejected Results vs. Total Results

Parameter	Parameter Group	Matrix	Unit	Number of Validated Results	Detections	Number of Rejected Results	Number of Non-rejected Results	Completeness
Benz[a]anthracene	SVOC	Water	ug/L	5	1	0	5	100.00%
Benzaldehyde	SVOC	Water	ug/L	5	1	0	5	100.00%
Benzo[a]pyrene	SVOC	Water	ug/L	5	4	0	5	100.00%
Benzo[b]fluoranthene	SVOC	Water	ug/L	5	3	0	5	100.00%
Benzo[g,h,i]perylene	SVOC	Water	ug/L	5	1	0	5	100.00%
Benzo[k]fluoranthene	SVOC	Water	ug/L	5	2	0	5	100.00%
bis(2-chloroethoxy)methane	SVOC	Water	ug/L	5	0	0	5	100.00%
bis(2-Chloroethyl)ether	SVOC	Water	ug/L	5	0	0	5	100.00%
bis(2-Chloroisopropyl)ether	SVOC	Water	ug/L	5	0	0	5	100.00%
bis(2-Ethylhexyl)phthalate	SVOC	Water	ug/L	5	2	0	5	100.00%
Caprolactam	SVOC	Water	ug/L	5	1	0	5	100.00%
Carbazole	SVOC	Water	ug/L	5	2	0	5	100.00%
Chrysene	SVOC	Water	ug/L	5	4	0	5	100.00%
Dibenz[a,h]anthracene	SVOC	Water	ug/L	5	0	0	5	100.00%
Diethylphthalate	SVOC	Water	ug/L	5	3	0	5	100.00%
Di-n-butylphthalate	SVOC	Water	ug/L	5	0	0	5	100.00%
Di-n-ocytlphthalate	SVOC	Water	ug/L	5	0	0	5	100.00%
Fluoranthene	SVOC	Water	ug/L	5	5	0	5	100.00%
Fluorene	SVOC	Water	ug/L	5	4	0	5	100.00%
Hexachlorobenzene	SVOC	Water	ug/L	5	0	0	5	100.00%
Hexachlorobutadiene	SVOC	Water	ug/L	5	0	0	5	100.00%
Hexachlorocyclopentadiene	SVOC	Water	ug/L	5	0	0	5	100.00%
Hexachloroethane	SVOC	Water	ug/L	5	0	0	5	100.00%
Indeno[1,2,3-c,d]pyrene	SVOC	Water	ug/L	5	0	0	5	100.00%
Isophorone	SVOC	Water	ug/L	5	0	0	5	100.00%
Naphthalene	SVOC	Water	ug/L	5	3	0	5	100.00%
Nitrobenzene	SVOC	Water	ug/L	5	0	0	5	100.00%
N-Nitroso-di-n-propylamine	SVOC	Water	ug/L	5	0	0	5	100.00%
N-Nitrosodiphenylamine	SVOC	Water	ug/L	5	0	0	5	100.00%
Pentachlorophenol	SVOC	Water	ug/L	5	1	0	5	100.00%
Phenanthrene	SVOC	Water	ug/L	5	5	0	5	100.00%
Phenol	SVOC	Water	ug/L	5	1	0	5	100.00%
Pyrene	SVOC	Water	ug/L	5	5	0	5	100.00%
Diesel Range Organics	TPH	Water	ug/L	5	5	0	5	100.00%
Gasoline Range Organics	TPH	Water	ug/L	5	1	0	5	100.00%
Oil and Grease	TPH	Water	ug/L	5	1	0	5	100.00%
1,1,1-Trichloroethane	VOC	Water	ug/L	5	0	0	5	100.00%
1,1,2,2-Tetrachloroethane	VOC	Water	ug/L	5	0	0	5	100.00%
1,1,2-Trichloro-1,2,2-Trifluoroethane	VOC	Water	ug/L	5	0	0	5	100.00%
1,1,2-Trichloroethane	VOC	Water	ug/L	5	0	0	5	100.00%
1,1-Dichloroethane	VOC	Water	ug/L	5	2	0	5	100.00%
1,1-Dichloroethene	VOC	Water	ug/L	5	1	0	5	100.00%
1,2,3-Trichlorobenzene	VOC	Water	ug/L	5	0	0	5	100.00%
1,2,4-Trichlorobenzene	VOC	Water	ug/L	5	0	0	5	100.00%
1,2-Dibromo-3-chloropropane	VOC	Water	ug/L	5	0	0	5	100.00%
1,2-Dibromoethane	VOC	Water	ug/L	5	0	0	5	100.00%
1,2-Dichlorobenzene	VOC	Water	ug/L	5	0	0	5	100.00%
1,2-Dichloroethane	VOC	Water	ug/L	5	0	0	5	100.00%
1,2-Dichloroethene (Total)	VOC	Water	ug/L	5	0	0	5	100.00%
1,2-Dichloropropane	VOC	Water	ug/L	5	0	0	5	100.00%
1,3-Dichlorobenzene	VOC	Water	ug/L	5	0	0	5	100.00%
1,4-Dichlorobenzene	VOC	Water	ug/L	5	0	0	5	100.00%
2-Butanone (MEK)	VOC	Water	ug/L	5	1	0	5	100.00%
2-Hexanone	VOC	Water	ug/L	5	1	0	5	100.00%
4-Methyl-2-pentanone (MIBK)	VOC	Water	ug/L	5	1	0	5	100.00%
Acetone	VOC	Water	ug/L	5	4	0	5	100.00%
Benzene	VOC	Water	ug/L	5	2	0	5	100.00%
Bromodichloromethane	VOC	Water	ug/L	5	0	0	5	100.00%
Bromoform	VOC	Water	ug/L	5	0	0	5	100.00%

EVALUATION OF DATA COMPLETENESS
Percentage of Non-Rejected Results vs. Total Results

Parameter	Parameter Group	Matrix	Unit	Number of Validated Results	Detections	Number of Rejected Results	Number of Non-rejected Results	Completeness
Bromomethane	VOC	Water	ug/L	5	0	0	5	100.00%
Carbon disulfide	VOC	Water	ug/L	5	0	0	5	100.00%
Carbon tetrachloride	VOC	Water	ug/L	5	0	0	5	100.00%
Chlorobenzene	VOC	Water	ug/L	5	0	0	5	100.00%
Chloroethane	VOC	Water	ug/L	5	0	0	5	100.00%
Chloroform	VOC	Water	ug/L	5	2	0	5	100.00%
Chloromethane	VOC	Water	ug/L	5	0	0	5	100.00%
cis-1,2-Dichloroethene	VOC	Water	ug/L	5	0	0	5	100.00%
cis-1,3-Dichloropropene	VOC	Water	ug/L	5	0	0	5	100.00%
Cyclohexane	VOC	Water	ug/L	5	1	0	5	100.00%
Dibromochloromethane	VOC	Water	ug/L	5	0	0	5	100.00%
Dichlorodifluoromethane	VOC	Water	ug/L	5	0	0	5	100.00%
Ethylbenzene	VOC	Water	ug/L	5	0	0	5	100.00%
Isopropylbenzene	VOC	Water	ug/L	5	1	0	5	100.00%
Methyl Acetate	VOC	Water	ug/L	5	1	0	5	100.00%
Methyl tert-butyl ether (MTBE)	VOC	Water	ug/L	5	0	0	5	100.00%
Methylene Chloride	VOC	Water	ug/L	5	0	0	5	100.00%
Styrene	VOC	Water	ug/L	5	0	0	5	100.00%
Tetrachloroethene	VOC	Water	ug/L	5	0	0	5	100.00%
Toluene	VOC	Water	ug/L	5	1	0	5	100.00%
trans-1,2-Dichloroethene	VOC	Water	ug/L	5	0	0	5	100.00%
trans-1,3-Dichloropropene	VOC	Water	ug/L	5	0	0	5	100.00%
Trichloroethene	VOC	Water	ug/L	5	0	0	5	100.00%
Trichlorofluoromethane	VOC	Water	ug/L	5	0	0	5	100.00%
Vinyl chloride	VOC	Water	ug/L	5	0	0	5	100.00%
Xylenes	VOC	Water	ug/L	5	0	0	5	100.00%
1,4-Dioxane	VOC/SVOC	Water	ug/L	5	5	0	5	100.00%

Data validation has been completed for a representative 50% of all samples