

# Phase II Investigation Work Plan

## Area B: Parcel B18 Tradepoint Atlantic Sparrows Point, Maryland

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## 1.0 INTRODUCTION

### 1.1. INTRODUCTION

ARM Group Inc. (ARM), on behalf of EnviroAnalytics Group (EAG), has prepared the following Work Plan to complete a Phase II site investigation on a portion of the Tradepoint Atlantic property that has been designated as Area B, Parcel B18 (the Site). Parcel B18 is comprised of approximately 36.8 acres of the approximately 3,100-acre former plant property located as shown on **Figure 1**.

Site characterization of Parcel B18 will be performed in compliance with requirements pursuant to the following:

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

An application to enter the Tradepoint Atlantic property into the Maryland Department of the Environment Voluntary Cleanup Program (MDE-VCP) was submitted to MDE on September 10, 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.

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

Tradepoint Atlantic has developed an initial master plan for the entire site that shows potential future development areas across the entire Tradepoint Atlantic property. This master plan is a working document and it is expected to undergo subsequent revisions in the future. Based on this document and additional development information provided by EAG, up to 100% of the total area within Parcel B18 may ultimately be proposed for environmental capping. The parcel

contains a former Kinder Morgan Warehouse (now under the authority of Tradepoint Atlantic), which may be occupied or redeveloped based on the future needs of the property.

The objective of this Phase II Investigation is to identify the presence or absence of any existing hazardous conditions for future tenants or personnel working on the Site. During the Phase II Investigation, a total of 72 soil borings and four sub-slab soil gas samples will be collected and analyzed to assess the presence or absence of contamination in Parcel B18. Groundwater at the Site has been previously investigated by the separate Area B Groundwater Investigation (conducted in accordance with the approved Work Plan dated October 6, 2015), but nine additional groundwater sample collection points are proposed to supplement this earlier investigation. Following the receipt of analytical data, a Human Health Screening Level Risk Analysis (SLRA) will be completed to evaluate the potential risk to future workers, and a Phase II Investigation Report will be prepared to summarize the findings.

## **1.2. SITE BACKGROUND**

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

Groundcover at the Site is comprised of approximately 66% natural soils and 34% slag based on the approximate shoreline of the Sparrows Point Peninsula in 1916, as shown on **Figure 2** (Adapted from Figure 2-20 on the Description of Current Conditions (DCC) Report prepared by Rust Environmental and Infrastructure, dated January 1998). 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 parcel boundary. Towards 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. While the majority of the Coke Oven Area is outside the boundary of Parcel B18, due to the nature of the processes within the parcel boundary, and the proximity to the Coke Oven Area, it is possible that Parcel B18 could also be impacted by this process area.

A Mechanical Maintenance Office and Service Building was located towards the western portion of the Parcel B18. A Maintenance Yard was located in the south western 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. Two former Coke Batteries and a former Coke Wharf were historically located in the area occupied by the Kinder Morgan Warehouse. It is our understanding that the warehouse was previously used to store Kinder Morgan equipment and bulk materials that were imported and exported at the Site.

A field visit was completed on August 31, 2016 in order to observe the current conditions and contents being stored within the former Kinder Morgan Warehouse. Several large zinc storage piles were observed during within the warehouse, with identifying labels present on each pile. The labels stated that each pile contained either “Concord Raw Zinc” or “Concord IMM Zinc.” The stockpiles were located along the northern and southern walls of the warehouse, with an access road running through the middle of the structure and large bay doors at either end. The warehouse was not filled to capacity, and several large open areas were located between the stockpiles. The concrete floor slab appeared to be in good condition with little evidence of cracking or pitting. The pad was covered by a thin layer of soil and/or stockpile material in most areas. A photograph log from the field visit has been included as **Appendix A**.

A subsequent site visit was completed on September 21, 2016 to perform a simple inventory of the stockpiles currently stored on-site outside of the warehouse building. This task was specifically requested by the MDE following an initial Site visit completed by agency personnel in mid-September. During the stockpile inventory, a hand-held GPS unit was used to document materials management areas within the parcel. Small individual stockpiles were not documented because the materials are regularly relocated and the current positions are temporary. However, the areas dedicated to materials management were recorded, and the types of materials managed in each area were also noted by the field technician. The approximate locations of the materials management areas are indicated in **Figure 3**. The large materials management area in the southern portion of the parcel included piles of gravel-sized grey/brown slag. The materials stored in each pile were graded based on the grain size. The only exception was a large pile in the southwest portion of the material management area which was covered by a tarp/liner. This pile was comprised of finer grained (coarse sand) dark grey material. The field technician suspected that it was made up of the same zinc materials stored in the former Kinder Morgan Warehouse located directly adjacent. A dense marshy area was also observed within the southern materials management area, but the position of the marsh is not expected to restrict access. The smaller materials management area in the northern section of the Site also contained several slag piles, but also included several piles of concrete and building material rubble. Several derelict building foundations were also present in this area. Areas between the individual stockpiles may be utilized to complete the sampling plan discussed herein if any field shifts are required due to obstructions.

### **1.2.1. Background Environmental Data**

Prior to the Area B Groundwater Investigation there were five historical existing wells located within Parcel B18. These wells include SW13-PZM003, SW13-PZM025, SW13-PZM111, SW14-PZM004 and SW14-PZM099. Available analytical data from these wells were extracted from the Site Wide Investigation Groundwater Study Report prepared by the Bethlehem Steel Corporation Sparrows Point Division dated December 20, 2001, and the Site Wide Investigation Report of Nature & Extent of Releases to Groundwater from the Special Study Areas prepared by URS, dated January 2005. Relevant historical data from these wells are presented in **Appendix B**. Results highlighted in yellow indicate exceedances of the aqueous Project Action Limits (PALs) for individual constituents. The appendix also indicates the screened interval for each of the existing wells, as well as the hydrogeologic zone.

Several new wells were installed within and surrounding the parcel, and these wells (along with two redeveloped historical wells located within parcel boundary) were sampled during the Area B Groundwater Investigation. Two historical wells (SW13-PZM003 and SW14-PZM004) that were observed to be damaged during a preliminary inspection were replaced with new wells; which were constructed with screen intervals similar to the damaged wells. SW14-PZM099 (also damaged) was not reconstructed because the Area B Groundwater Investigation Work Plan specified that wells installed in the lower hydrogeologic zone would not be replaced. The results from the recent groundwater sampling events (December 2015 through March 2016) are provided in **Appendix C**. Any aqueous PAL exceedances in the recently obtained groundwater data are highlighted in yellow. The appendix also indicates the screened interval for each of the existing wells, as well as the hydrogeologic zone. In accordance with the approved Area B Groundwater Investigation Work Plan, each of the wells included in the groundwater study were checked for non-aqueous phase liquid (NAPL) using an oil-water interface probe prior to sampling. None of the wells in the vicinity of Parcel B18 had measureable NAPL.

There is no historical soil or soil gas sampling data available from this parcel.

## **1.3. SAMPLING DESIGN AND RATIONALE**

### **1.3.1. Soil Sampling Targets**

Parcel B18 contains a total of 36.8 acres: 34.8 acres without engineered barriers and 2.0 acres with current engineered barriers (building slabs). Of the 2.0 acres covered by existing building slabs, the Kinder Morgan Warehouse occupies roughly 1.7 acres and is addressed by sub-slab soil gas samples (discussed below). To remain conservative, the current engineered barriers were used to define the density requirements for the parcel. In accordance with the relevant sampling density requirements set forth in the Quality Assurance Project Plan (QAPP) Worksheet 17 – Sampling Design and Rationale, a minimum of 24 soil boring locations are

required in the areas without engineered barriers, and a minimum of 2 soil boring locations are required in the areas currently with engineered barriers. A total of 69 borings have been proposed in areas without engineered barriers, and a total of 3 borings have been proposed to target areas with current engineered barriers. **Figure 4** shows the proposed borings on an aerial image to indicate locations of borings with regard to physical landmarks. This figure acts as a reference map and indicates the boring ID's assigned to each individual location. The soil boring IDs have been removed from all subsequent soil sampling figures. **Figure 5** shows the boring locations in relation to the current engineered barriers within Parcel B18. Sampling locations were selected as follows.

Across the whole Tradepoint Atlantic property, several buildings and facilities may have been historical sources of environmental contamination. These areas were identified as targets for sampling through a careful review of historical documents. The first sampling targets to be identified were Recognized Environmental Conditions (RECs), if they exist, that are located within the Site boundaries as shown on the REC Location Map provided in the Phase I Environmental Site Assessment (ESA) prepared by Weaver Boos Consultants dated May 19, 2014. Weaver Boos completed site visits of Sparrows Point from February 19 through 21, 2014, for the purpose of characterizing current conditions at the former steel plant. All RECs would be targeted with at least three (3) borings. The following RECs were identified at the Site:

**Number 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 surface waters of the adjoining coal slip 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.



A second group of sampling targets was defined, if necessary, based on previous RCRA Facility Assessment (RFA) documentation and a previous visual site inspection (VSI) prepared by A.T. Kearney, Inc. (dated August 1993) provided in the DCC Report. The purpose of the VSI was to identify Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) on the property. SWMUs and AOCs, if present, were identified from the DCC report Figure 3-1. There were no SWMUs or AOCs that were identified at the Site based on this figure, and no additional units were identified from the DCC report Table 3-1. **Figure 6** shows the proposed borings overlain on the DCC figure, which shows the SWMUs, AOCs, and main facility areas within the property boundaries.

Following the identification of all RECs, SWMUs, and AOCs, four (4) sets of historical site drawings were reviewed to identify additional sampling targets. These site 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. Sampling target locations were identified if the historical site drawings depicted industrial activities or a specific feature at a location that may have been a source of environmental contamination that impacted the Site. 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 within the parcel boundaries based on this final drawing set. **Figures 7 through 9** show the proposed borings and the parcel boundary overlain on the 5000 Set, 5100 Set, and 5500 Set, respectively. A summary of the specific drawings covering the Site is presented in the table below:

<b>Parcel B18 Historical Site Drawings Details</b>				
<u>Set Name</u>	<u>Typical Features Shown</u>	<u>Drawing Number</u>	<u>Original Date Drawn</u>	<u>Latest Revision Date</u>
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	<i>Unknown</i>	3/12/2008
		5114	<i>Unknown</i>	8/14/2008
		5115	<i>Unknown</i>	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	<i>Unknown</i>	1/22/1982
		5515	Oct-58	9/11/2008
Drip Legs	Coke Oven Gas Drip Legs Locations	5885B	<i>Unknown</i>	Sept. 1988

A list and figure of former PCB-containing transformer equipment was also reviewed for inclusion as additional targets. There were no possible PCB-contaminated equipment areas identified in the parcel based on this information.

The number of proposed borings that targeted a specific feature is directly related to the size and likely historical presence of materials that could have impacted the Site. Careful review of the geospatially referenced figures and review of other historical documents (previously discussed) yielded the proposed boring locations. Based on this criterion, the following sampling targets were identified at the Site: Coke Batteries, Coke Wharf, Coke Oven Lab, Cooling Slag, Disintegrator Building, Electric Substation, Filter Building, Filters, Hot Slag Pits, Mechanical Maintenance Office and Service Building, Mechanical Maintenance Storage, Mechanical Maintenance Yard, Mechanical Maintenance Shop, No. 1 Boiler House, No. 1 Pump Station, Phoenix Recycle Area, Pipe Shop, Tar Pump House / Oil Station, Pump House, Repair Shop, Service Building, Settling Basin, Spray Pond, Storage Shed, Turbo Generator, Old No. 1 Gas Engine, Old No. 2 Gas Engine, Belt Storage, and Tar Storage Tanks. When a sampling target was identified, at least two borings were placed at or around its location using GIS software (ArcMap Version 10.3.1), unless specifically directed otherwise by the MDE. Sample locations were also added to fill in large spatial gaps between proposed borings within the Site and to meet the sample density requirements set forth in the QAPP Worksheet 17 – Sampling Design and Rationale. The full list of sampling targets, along with the specific rationale for sampling each, is provided as **Appendix D**.

### 1.3.2. Groundwater

Groundwater at the Site was previously investigated as described in the Area B Groundwater Investigation Work Plan. The completed groundwater sample locations from this separate plan are shown on **Figure 10**. Groundwater analytical data has been provided in **Appendix C** for each of the sampled wells. Additionally, groundwater will be investigated along the southern and eastern boundaries of the Site using nine temporary installed groundwater monitoring piezometers. These additional groundwater samples (B18-007-PZ, B18-046-PZ, B18-061-PZ, B18-070-PZ, B18-071-PZ, B18-072-PZ, B18-074-PZ, B18-075-PZ, and B18-076-PZ) were requested by the MDE based on an initial site visit and an informal review of the preliminary sampling plan. **Figure 11** shows an aerial view of the additional proposed groundwater sample locations.

### 1.3.3. Sub-Slab Soil Gas

The sub-slab soil gas investigation below the Kinder Morgan Warehouse is necessary to verify that conditions within, below, and around the building do not pose a potentially unacceptable risk to current and future commercial workers occupying the buildings. The former Kinder Morgan Warehouse has an area of approximately 74,962 ft<sup>2</sup>. According to the density requirement given

in QAPP Worksheet 17 – Sampling Design and Rationale, four (4) sampling locations are required in a structure of this size. Sub-slab soil gas samples have been included in the parcel specific sampling plan, with two (2) locations (B18-062-SG and B18-063-SG) targeting former Coke Batteries and one (1) location (B18-064-SG) targeting a Coke Wharf. The final sub-slab soil gas sample (B18-065-SG) provides general coverage within the building. **Figure 12** displays the locations of these sub-slab soil gas samples. The approximate locations of the zinc stockpiles are also included in the figure.

## 2.0 PROJECT ORGANIZATION AND RESPONSIBILITIES

### 2.1. PROJECT PERSONNEL

The site characterization of Area B Parcel B18 will be conducted by ARM under a contract with EAG. ARM will provide project planning, field sampling and reporting support. The required drilling, Geoprobe<sup>®</sup> and laboratory services will be contracted directly by EAG. The management, field, and laboratory responsibilities of key project personnel are defined in this section.

The ARM Project Manager, Mr. Eric Magdar is responsible for ensuring that all activities are conducted in accordance with this Work Plan and the contract requirements. Mr. Magdar will provide technical coordination with the MDE, EPA and EAG. The ARM Project Manager is responsible for managing all operations conducted for this project including:

- Ensure all personnel assigned to this project review the technical project plans before initiation of all tasks associated with the project.
- Review of project plans in a timely manner.
- Ensure proper methods and procedures are implemented to collect representative samples.
- Monitor the project budget and schedule and ensure the availability of necessary personnel, equipment, subcontractors, and other necessary services.

The lead ARM Project Scientist, Mr. Nicholas Kurtz, will be responsible for coordinating field activities including the collection, preservation, documentation and shipment of samples. Mr. Kurtz will directly communicate with the ARM Project Manager and Laboratory Project Manager on issues pertaining to sample shipments, schedules, container requirements, and other necessary issues. Mr. Kurtz is also responsible for ensuring the accuracy of sample documentation including the completion of the chain-of-custody (CoC) forms.

Pace Analytical Services, Inc. (PACE) of Greensburg, Pennsylvania will provide the analytical services for this project. The address for the laboratory is as follows:

Pace Analytical  
1638 Roseytown Road  
Greensburg, PA 15601

During the field activities, the Laboratory Project Manager will coordinate directly with the ARM Project Manager on issues regarding sample shipments, schedules, container requirements, and other field-laboratory logistics. The Laboratory Project Manager will monitor the daily activities of the laboratory, coordinate all production activities, and ensure that work is being

conducted as specified in this document. Ms. Samantha Bayura will be the Laboratory Project Manager for PACE on this project.

## **2.2. HEALTH AND SAFETY ISSUES**

Because of the potential presence of metals, petroleum hydrocarbons and chlorinated hydrocarbons in the soil and groundwater at the Site, the investigation will be conducted under a site-specific Health and Safety Plan to protect investigation workers from possible exposure to contaminated materials. The site-specific HASP for Parcel B18 is provided as **Appendix E**.

Based on information provided to ARM, the planned site activities will be conducted under modified Level D personal protection. The requirements of the modified Level D protection are defined in ARM's site specific Health and Safety Plan. All field personnel assigned for work at the Site have been trained in accordance with the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response standard (29 CFR 1910.120) and other applicable OSHA training standards. All field staff will be experienced in hazardous waste site work, use of personal protective equipment (PPE), and emergency response procedures.

### 3.0 FIELD ACTIVITIES AND PROCEDURES

#### 3.1. UTILITY CLEARANCE

ARM will take appropriate precautions to avoid subsurface utilities and structures during the site investigation. Prior to initiating any subsurface investigations, ARM will attempt to determine the location of utilities in the project area using the Miss Utility system. Additionally, any required state or local permits will be acquired prior to the commencement of site activities.

In addition to the Miss Utility system, EAG will clear each proposed boring with utility personnel currently working on the property. To facilitate this, ARM will locate with a GPS and mark all proposed boring locations in the field. ARM will coordinate the staking of borings in the field with Tradepoint Atlantic utility personnel to avoid conflicts. Historical utility drawings which may be relevant include the 5600 Set (Plant Water Lines) and 5800 Set (Plant Gas Lines).

#### 3.2. SAMPLING PLAN

The purpose of this site characterization is to identify any existing hazardous conditions across the entire Site. A summary of the RECs and other areas of concern that will be investigated, along with the proposed boring identification number and the analyses being performed, has been provided as **Appendix D**.

This Work Plan presents the methods and protocols to be used to complete the site characterization. These methods and procedures follow the MDE-VCP and EPA guidelines. Information regarding the project organization, field activities and sampling methods, sampling equipment, sample handling and management procedures, the laboratory analytical methods and selected laboratory, quality control and quality assurance procedures, investigation-derived waste (IDW) management methods, reporting requirements are described in detail in the QAPP that has been developed to support the investigation and remediation of the Tradepoint Atlantic Site (Quality Assurance Project Plan, ARM Group Inc., April 5, 2016).

The proposed schedule of this investigation is contained in this work plan (Section 8.0). All site characterization activities will be conducted under the site-specific HASP (**Appendix E**).

#### 3.3. SOIL INVESTIGATION

Soil samples will be collected from the locations identified on **Figures 4 through 9**, and in accordance with procedures referenced in the QAPP Worksheet 21 – Field SOPs (Standard Operating Procedures), SOP No. 009 – Sub-surface Soil Sampling. Regarding soil sampling depth, a shallow sample will be collected from the 0 to 1 foot depth interval, and a deeper sample will be collected from the 4 to 5 foot depth interval. One additional set of samples will also be collected from the 9 to 10 foot depth interval if groundwater has not been encountered; however,

these samples will be held by the laboratory pending the analysis of the 0 to 1 and 4 to 5 foot depth interval samples. If a concrete slab or slag aggregate occupies the 0-1 foot bgs sample, the interval may be shifted to the depth of the first observed fine-grained soil interval. If the PID or other field observations indicate contamination to exist at a depth greater than 3 feet bgs but less than 9 feet bgs, and is above the water table, the sample from the deeper 4-5 foot interval may be shifted to the depth interval indicated by the PID response. It should be noted that no soil samples will be collected from a depth that is below the water table.

After soil sampling has been concluded at a location, all down-hole soil sampling equipment will be decontaminated according to procedures referenced in the QAPP Worksheet 21 – Field SOPs, SOP No. 016 Equipment Decontamination. The decontamination procedures that will be used during the course of this investigation include Decontamination Area (Section 3.1 of the SOP), Decontamination of Sampling Equipment (Section 3.5), Decontamination of Measurement Devices & Monitoring Equipment (Section 3.7), Decontamination of Subsurface Drilling Equipment (Section 3.8), and Document and Record Keeping (Section 5).

All soil samples will be analyzed for TCL-SVOCs, TAL-Metals, Oil & Grease, TPH-DRO, TPH-GRO, hexavalent chromium, and cyanide. During field screening of the soil cores, any sample interval which exceeds a PID reading of 10 ppm will also be analyzed for TCL-VOCs. Additionally, the shallow soil samples collected across the Site from the 0-1 foot bgs interval will also be analyzed for PCBs. In the event that a shallow sample is shifted below the 0-1 foot interval, the new interval will still be collected as a surface soil sample and analyzed for PCBs. Analytical methods, 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. GROUNDWATER INVESTIGATION**

The groundwater sampling plan for Parcel B18 is covered by the Area B Groundwater Investigation Work Plan (Revision 3), dated October 6, 2015. The sample locations from this approved Work Plan are indicated on **Figure 10**. The groundwater investigation included four groundwater sample locations within the parcel boundaries (SW13-PZM003, SW13-PZM025, SW13-PZM111, and SW14-PZM004). An additional four wells are located just beyond the parcel boundaries (SW-029-MWS, SW-030-MWS, SW-031-MWS, and SW-065-MWS). Of the eight total groundwater locations associated with the parcel, six wells were installed in the shallow water bearing unit. One location (SW13-PZM025) is screened in the intermediate hydrogeologic zone, and one location (SW13-PZM111) is screened in the lower zone.

To supplement this prior investigation, temporary piezometers will be installed at the locations identified on **Figure 11** in accordance with the procedures referenced in the QAPP Worksheet 21 – Field SOPs, SOP No. 028 – Direct Push Installation and Construction of Temporary

Groundwater Sample Collection Points. Sample locations where piezometers will be installed include: B18-007-PZ, B18-046-PZ, B18-061-PZ, B18-070-PZ, B18-071-PZ, B18-072-PZ, B18-074-PZ, B18-075-PZ, and B18-076-PZ. Groundwater samples will be collected from temporary piezometers in accordance with the procedures referenced in the QAPP Worksheet 21 – Field SOPs, SOP No. 006 – Groundwater Sampling. All groundwater samples will be analyzed for TCL-VOCs, TCL-SVOCs, TAL-Dissolved Metals, Oil & Grease, TPH-DRO, TPH-GRO, dissolved hexavalent chromium, and total cyanide. Analytical methods, sample containers, preservatives, and holding times for the sample analyses are listed in the QAPP Worksheet 19 & 30 – Sample Containers, Preservation, and Holding Times. Available data from the existing shallow wells already sampled for the Area B (listed above) will also be included in the exceedance report for the parcel.

Each temporary groundwater sampling point will be checked for the presence of NAPL using an oil-water interface probe, in accordance with methods referenced in the QAPP Worksheet 21 – Field SOPs, SOP No. 019 – Depth to Groundwater and NAPL Measurements.

Once each PVC piezometer has been sampled and/or checked for NAPL, it will be emptied, removed and discarded. The boreholes will then be abandoned in accordance with Maryland abandonment standards as stated in COMAR 26.04.04.34 through 36.

### **3.5. SUB-SLAB SOIL GAS INVESTIGATION**

Sub-slab soil gas samples will be collected from temporary monitoring probes installed at each of the locations provided on **Figure 12** to determine if historical on-site activities have negatively impacted the soil beneath the Kinder Morgan Warehouse and to determine if there is a potentially unacceptable risk associated with the vapor intrusion to indoor air risk pathway. Soil gas samples will be collected according to procedures outlined in QAPP Worksheet 21 – Field SOPs, SOP No. 002 – Sub-Slab Soil Gas Sampling. All sub-slab soil gas samples will be analyzed for VOCs. Analytical methods, sample containers, preservatives, and holding times for the sample analyses are listed in the QAPP Worksheet 19 & 30 – Sample Containers, Preservation, and Holding Times.

### **3.6. NAPL DELINEATION**

In the event that NAPL bearing soils are identified in a soil boring, a temporary piezometer will be installed according to the specifications identified in SOP No. 028 – Direct Push Installation and Construction of Temporary Groundwater Sample Collection Points. The temporary piezometers will be immediately checked for the presence of NAPL using an oil-water interface probe in accordance with methods referenced in the SOP No. 019 – Depth to Groundwater and NAPL Measurements. If NAPL is not detected, the piezometer will be allowed to equilibrate for at least 48 hours prior to a second measurement. If no measureable product is detected after 48 hours, the piezometer will be emptied, removed and discarded, and the borehole will be



abandoned in accordance with Maryland abandonment standards as stated in COMAR 26.04.04.34 through 36. If measureable NAPL is detected during either check, another measurement will be made after a 30 day (minimum) equilibration period to determine NAPL thickness.

If measureable NAPL is present in the initial piezometer, additional soil borings with shallow temporary piezometers will be installed to the north, south, east, and west of the detection point at distances of 25 feet. Delineation piezometers will extend into adjacent parcels (if applicable) but will not be installed off of Tradepoint Atlantic property and will only be installed up to the edge of existing buildings. At each location, continuous core soil samples will be screened with a hand-held PID and inspected for evidence of NAPL, and the additional temporary piezometers will be installed to a final depth determined by ARM personnel.

Each additional piezometer installed to delineate the NAPL will be checked for the presence of product with an oil-water interface probe immediately after installation, 48 hours after installation, and again after a 30 day equilibration period. If measureable NAPL is present within any of the piezometers, additional borings/piezometers will be added as necessary to complete the delineation. The MDE will be notified within 48 hours if NAPL is detected within the temporary piezometers. Once the MDE has given approval to abandon the additional piezometers, each piezometer will be emptied, removed and discarded. All boreholes will be abandoned in accordance with Maryland abandonment standards as stated in COMAR 26.04.04.34 through 36. A full report documenting the results of the delineation, including NAPL thickness, will be submitted to the MDE within 30 days of completing the field activities.

### **3.7. SAMPLE DOCUMENTATION**

#### **3.7.1. Sample Numbering**

Samples will be numbered in accordance with the QAPP Appendix C – Data Management Plan.

#### **3.7.2. Sample Labels & Chain-of-Custody Forms**

Samples will be labeled and recorded on the Chain-of-Custody form in accordance with methods referenced in the QAPP Worksheet 26 & 27 – Sample Handling, Custody and Disposal.

### **3.8. LABORATORY ANALYSIS**

EAG has contracted PACE of Greensburg, Pennsylvania to perform the laboratory analysis for this project. All sample analyses to be performed are listed in **Appendix D**. The samples will be submitted for analysis with a standard turnaround time (approximately 5 work days). The specific list of compounds and analytes that the soil and sub-slab soil gas samples will be analyzed for, as well as the quantitation limits and project action limits, is provided in QAPP Worksheet 15 – Project Action Limits and Laboratory-Specific Detection/Quantitation Limits.

#### 4.0 QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

All soil, groundwater, and sub-slab soil gas samples will be collected using dedicated equipment including new soil core liners, sampling kits, tubing, and filters. Each cooler temperature will be measured and documented by the laboratory upon receipt.

Quality control (QC) samples are collected during field studies for various purposes, among which are to isolate site effects (control samples), to define background conditions (background sample), and to evaluate field/laboratory variability (spikes and blanks, trip blanks, duplicates, etc.).

The following QC samples will be submitted for analysis to support the data validation:

- Trip Blank – at a rate of one per cooler with VOC samples
  - Soil – VOCs only
  - Water – VOCs only
- Blind Field Duplicate – at a rate of one duplicate per twenty samples
  - Soil – VOCs, SVOCs, Metals, Oil & Grease, TPH-DRO, TPH-GRO, PCBs, Hexavalent Chromium, and Cyanide
  - Water – VOCs, SVOCs, Metals, Oil & Grease, TPH-DRO, TPH-GRO, Hexavalent Chromium, and Cyanide
  - Sub-Slab Soil Gas – VOCs only
- Matrix Spike/Matrix Spike Duplicate – at a rate of one per twenty samples
  - Soil – VOCs, SVOCs, Metals, Oil & Grease, TPH-DRO, TPH-GRO, PCBs, and Hexavalent Chromium
  - Water – VOCs, SVOCs, Metals, Oil & Grease, TPH-DRO, TPH-GRO, and Hexavalent Chromium
- Field Blank and Equipment Blank – at a rate of one per twenty samples
  - Soil – VOCs, SVOCs, Metals, Oil & Grease, TPH-DRO, TPH-GRO, Hexavalent Chromium, and Cyanide
  - Water – VOCs, SVOCs, Metals, Oil & Grease, TPH-DRO, TPH-GRO, Hexavalent Chromium, and Cyanide (an equipment blank would be collected in the event of non dedicated equipment use only)
  - Sub-Slab Soil Gas – VOCs only

The QC samples will be 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.

## **5.0 MANAGEMENT OF INVESTIGATION-DERIVED WASTE**

All investigation derived waste (IDW) procedures will be carried out in accordance with methods referenced in the QAPP Worksheet 21 – Field SOPs, SOP No. 005 – Investigation-Derived Wastes Management.

## **6.0 DATA VALIDATION**

For this Parcel B18 Phase II Investigation, a representative 50% of the complete analytical dataset will undergo data validation. Samples will be selected in groups according to the PACE project number assigned to each set of samples. Each PACE project number will be assigned a sequential number (from 1, 2, 3 ... n) in the order received by the lab until all sample groups for the parcel have been received by the lab. The random number function will be used to randomly order the project numbers and project numbers will be selected from top to bottom until 50% or more of the total number of samples in the parcel have been identified for validation.

All data validation procedures will be carried out in accordance with the QAPP Worksheet 34 – Data Verification and Validation Inputs, QAPP Worksheet 35 – Data Verification Procedures, and QAPP Worksheet 36 – Data Validation Procedures.

## 7.0 REPORTING

Following the receipt of all sampling results from “Area B Parcel B18”, ARM will prepare a Phase II Investigation Report that will document the sample collection procedures and supporting rationale, and present and interpret the analytical results. All results will be presented in tabular and graphical formats as appropriate to best summarize the data for future use. The sample results will be compared against the PALs specified in the QAPP, considering appropriate land use factors and institutional controls, to identify contaminants and exposure pathways of potential concern.

The Phase II Investigation Report will include a SLRA to evaluate potential risks to future workers of the Site prior to development. Compounds that are present at concentrations at or above the PALs will be identified as constituents of potential concern (COPCs) to be included in the SLRA. The Site will be analyzed as a single exposure unit (EU) based on the relatively small size of the parcel. The existing Kinder Morgan Warehouse, included in the site-wide exposure unit, will also be evaluated by a building occupancy assessment (BOA) to determine if use of the existing building might pose any additional unacceptable risks. The analytical soil data will be separated into surface (0-1 ft) and subsurface (>1 ft) depths, and exposure point concentrations (EPCs) will be estimated for each COPC dataset using ProUCL software. Lead will be evaluated by the arithmetic mean for the surface and subsurface soils. The estimates of potential EPCs for surface and subsurface soils will be compared to the USEPA Regional Screening Levels (RSLs) for the Composite Industrial Worker scenario and to site-specific RSLs for the Construction Worker (calculated for each EU using the on-line RSL calculator) to develop Risk Ratios for each COPC relative to a cancer risk of  $1E-6$  and non-cancer Hazard Index of 1. The risk ratios for individual COPCs will be summed for the carcinogens and non-carcinogens (summed by target organ) to provide screening level estimates of potential cumulative risk to determine if further action is warranted. ARM will also present recommendations for any additional site investigation activities if warranted.

## 8.0 SCHEDULE

The field activities below (including sample analysis and data validation) are planned so that they may be completed within six (6) months of agency approval of this Work Plan. In addition, the investigation report will be submitted to the regulatory authorities within two (2) months of completion of the field activities in accordance with these approximate timeframes:

- the sample collection activities will take approximately six (6) weeks to complete (including mobilization activities) once approval of the work plan is received;
- the sample analysis, data validation ( $\geq 50\%$ ) and review is expected to require an additional 10 weeks to complete; and
- the preparation of the investigation report, including an internal Quality Assurance Review cycle, will require another 10 weeks.

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## **FIGURES**

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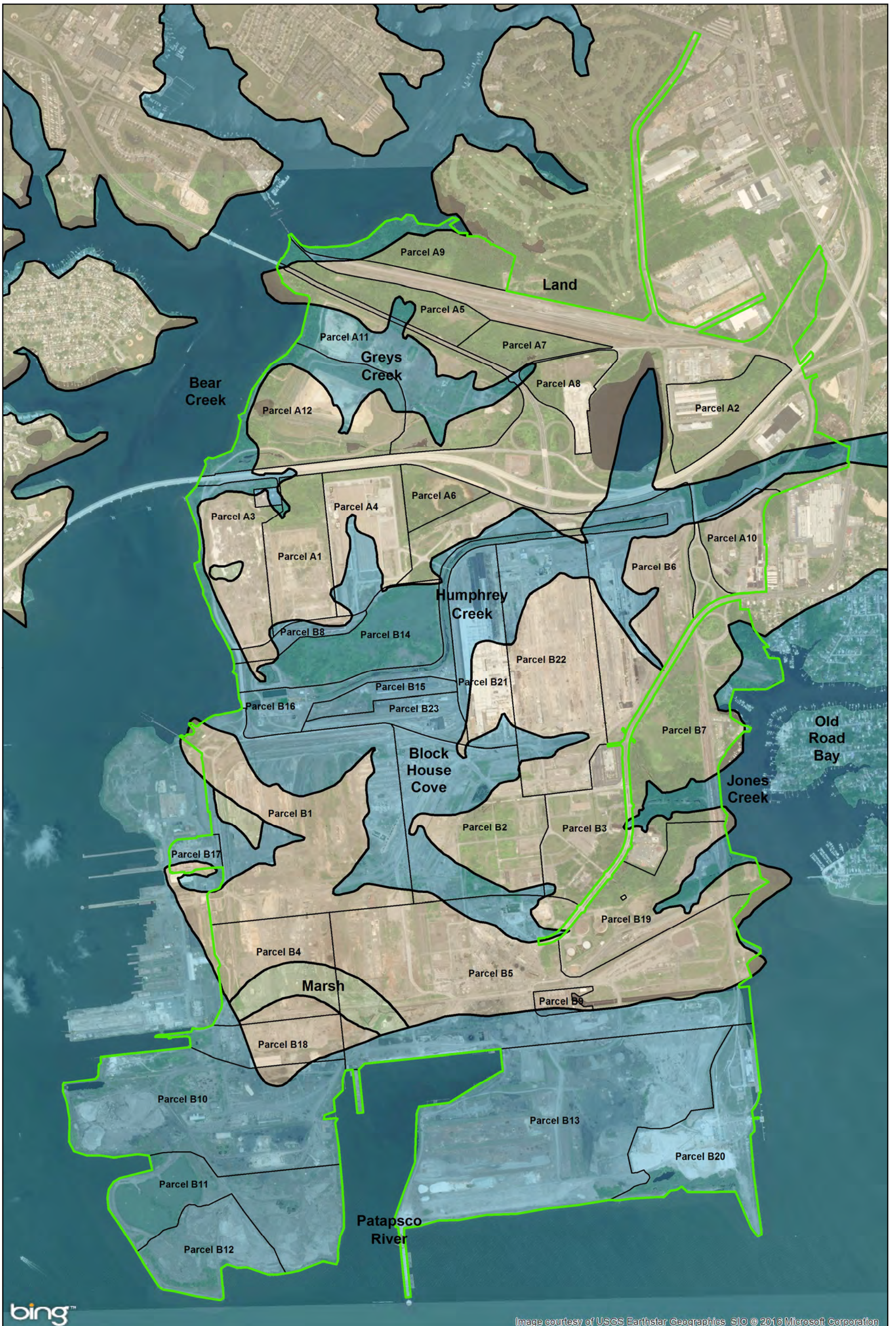


bing™

Image courtesy of USGS Earthstar Geographics SIO © 2016 Microsoft Corporation

  <p>ARM Group Inc. Earth Resource Engineers and Consultants</p>  <p>0 375 750 1,500 Feet</p>	<p>Site Boundary</p> <p>Private Property</p> <p>Area A Boundaries</p> <p>Area B Boundaries</p>	<p><b>Tradepoint Atlantic</b></p> <p><b>Area A and Area B Parcels</b></p> <p>August 1, 2016</p>		<p>EnviroAnalytics Group</p> <p>Tradepoint Atlantic</p>	<p><b>Figure</b></p> <p><b>1</b></p>
			<p>Area A: Project 150298M</p> <p>Area B: Project 150300M</p>	<p>Baltimore County, MD</p>	



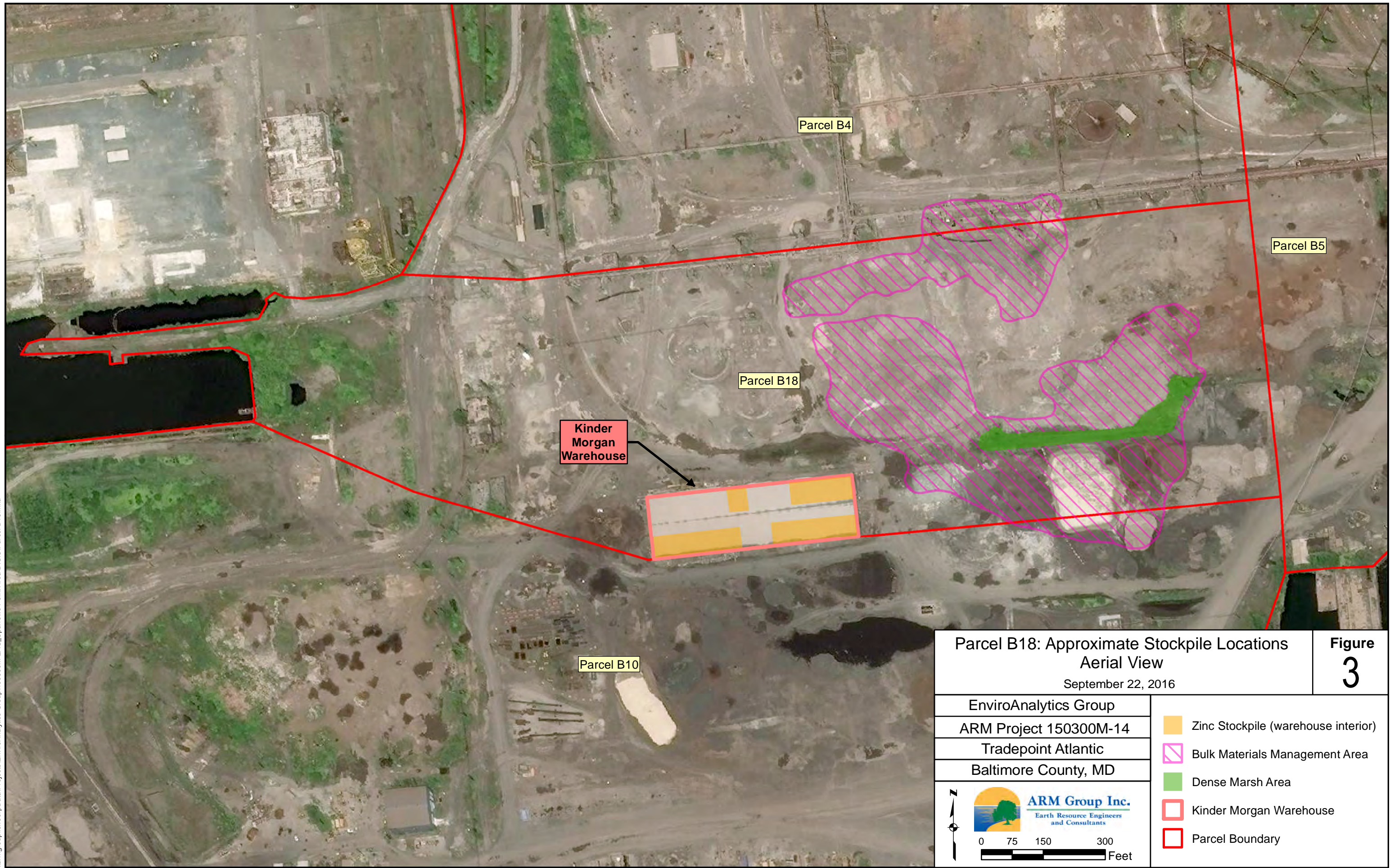


bing™

Image courtesy of USGS Earthstar Geographics SIO © 2016 Microsoft Corporation

<p><b>ARM Group Inc.</b> Earth Resource Engineers and Consultants</p> <p>0 375 750 1,500 Feet</p>	<p>Site Boundary</p>	<p>Land</p>	<p><b>Approximate Shoreline 1916</b> August 1, 2016</p> <p>Adapted from Figure 2-5 of the Description of Current Conditions Report prepared by Rust Environmental and Infrastructure, dated January 1998</p>		<p>EnviroAnalytics Group</p>	<p>Tradepoint Atlantic</p>	<p><b>Figure</b> <b>2</b></p>
	<p>Area A Boundaries</p>	<p>Marsh</p>			<p>Area B Boundaries</p>	<p>Water</p>	

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**Parcel B18: Approximate Stockpile Locations**  
**Aerial View**  
 September 22, 2016

**Figure**  
**3**

EnviroAnalytics Group  
 ARM Project 150300M-14  
 Tradepoint Atlantic  
 Baltimore County, MD

- Zinc Stockpile (warehouse interior)
- Bulk Materials Management Area
- Dense Marsh Area
- Kinder Morgan Warehouse
- Parcel Boundary

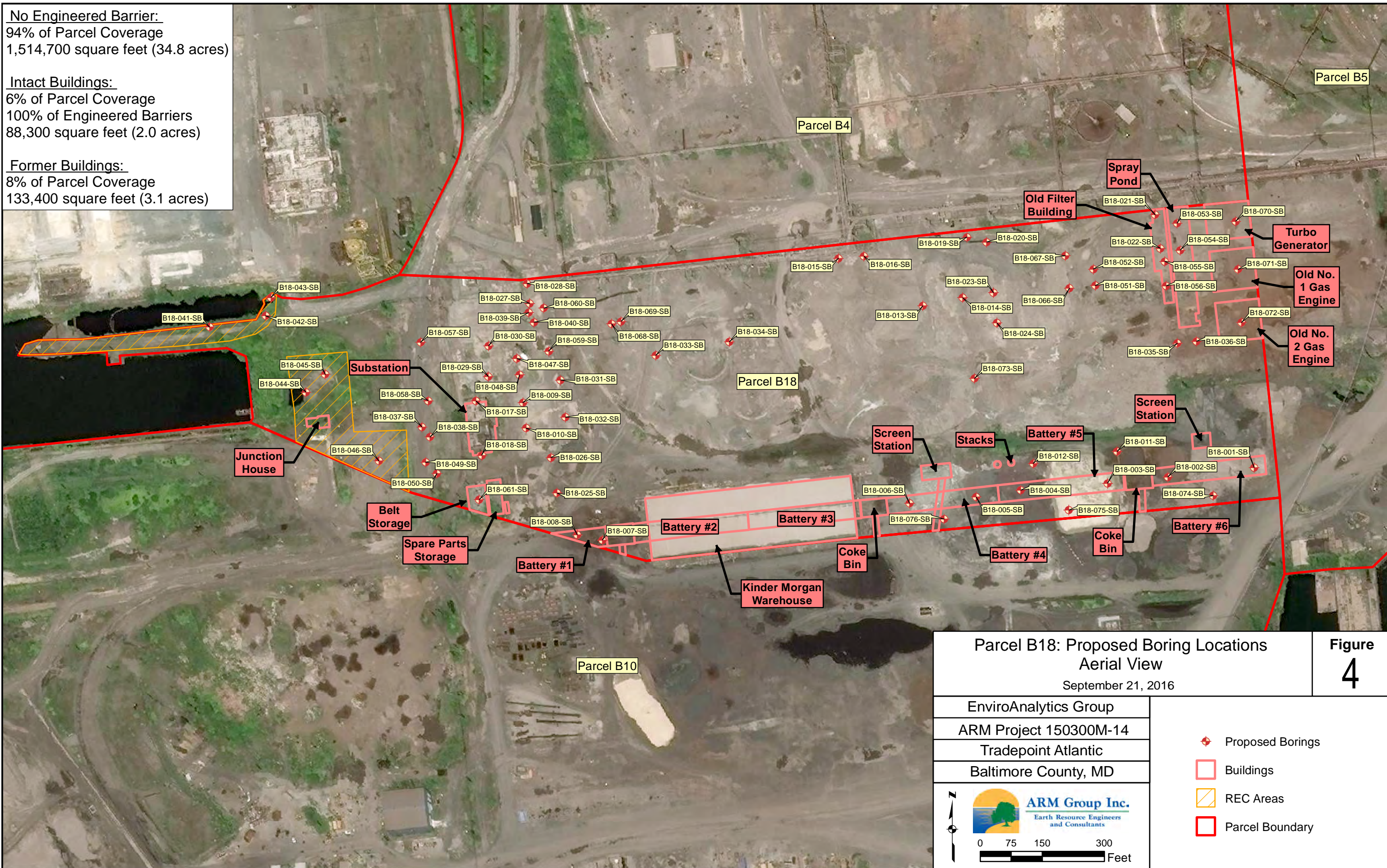

**ARM Group Inc.**  
 Earth Resource Engineers  
 and Consultants

0 75 150 300  
 Feet

**No Engineered Barrier:**  
 94% of Parcel Coverage  
 1,514,700 square feet (34.8 acres)

**Intact Buildings:**  
 6% of Parcel Coverage  
 100% of Engineered Barriers  
 88,300 square feet (2.0 acres)


**Former Buildings:**  
 8% of Parcel Coverage  
 133,400 square feet (3.1 acres)







Parcel B18: Proposed Boring Locations  
 Aerial View  
 September 21, 2016

Figure  
 4

EnviroAnalytics Group  
 ARM Project 150300M-14  
 Tradepoint Atlantic  
 Baltimore County, MD


**ARM Group Inc.**  
 Earth Resource Engineers  
 and Consultants

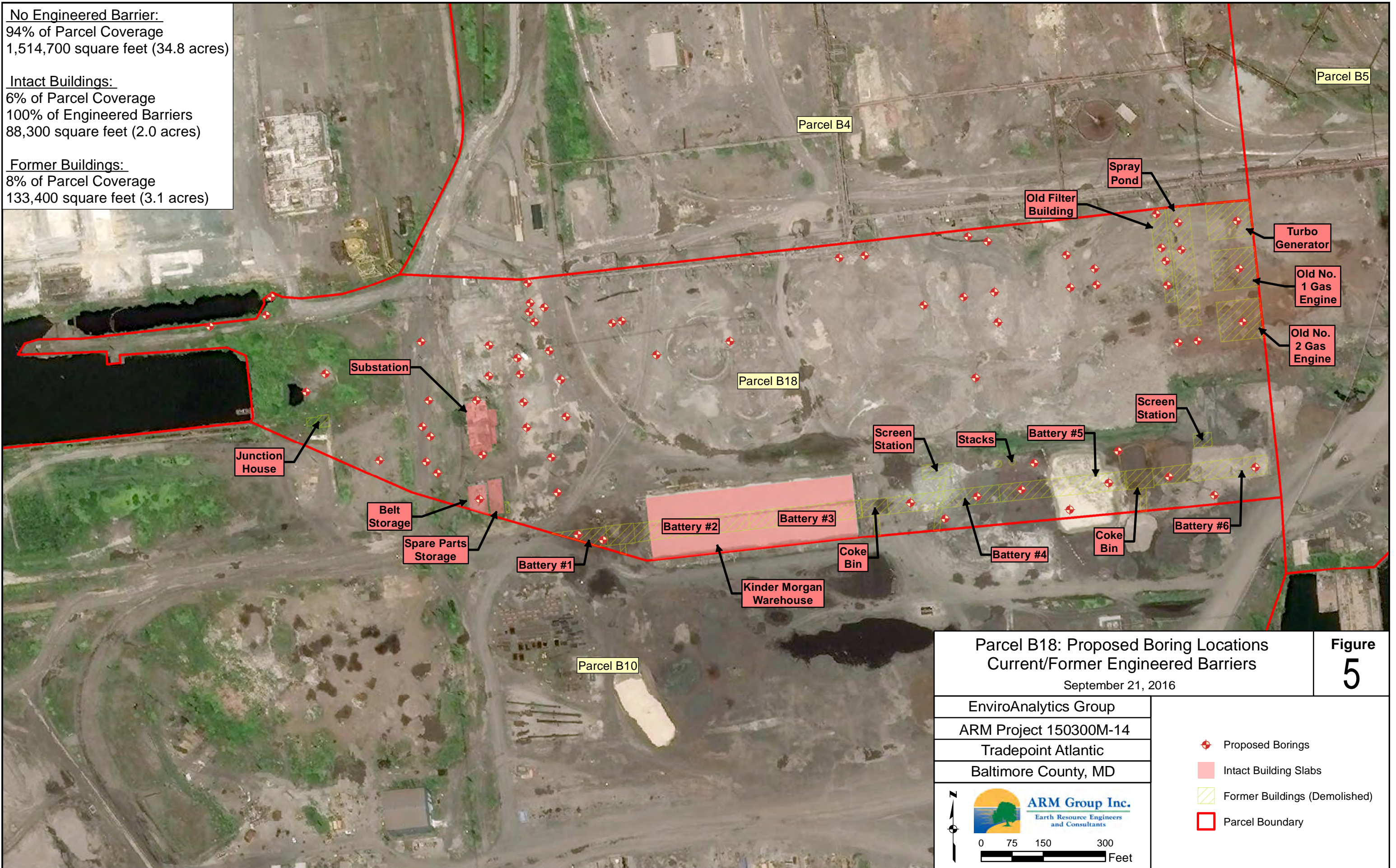
0 75 150 300  
 Feet

-  Proposed Borings
-  Buildings
-  REC Areas
-  Parcel Boundary

**No Engineered Barrier:**  
 94% of Parcel Coverage  
 1,514,700 square feet (34.8 acres)

**Intact Buildings:**  
 6% of Parcel Coverage  
 100% of Engineered Barriers  
 88,300 square feet (2.0 acres)


**Former Buildings:**  
 8% of Parcel Coverage  
 133,400 square feet (3.1 acres)







**Parcel B18: Proposed Boring Locations  
 Current/Formed Engineered Barriers**  
 September 21, 2016

**Figure  
 5**

EnviroAnalytics Group  
 ARM Project 150300M-14  
 Tradepoint Atlantic  
 Baltimore County, MD


**ARM Group Inc.**  
 Earth Resource Engineers  
 and Consultants

0 75 150 300  
 Feet

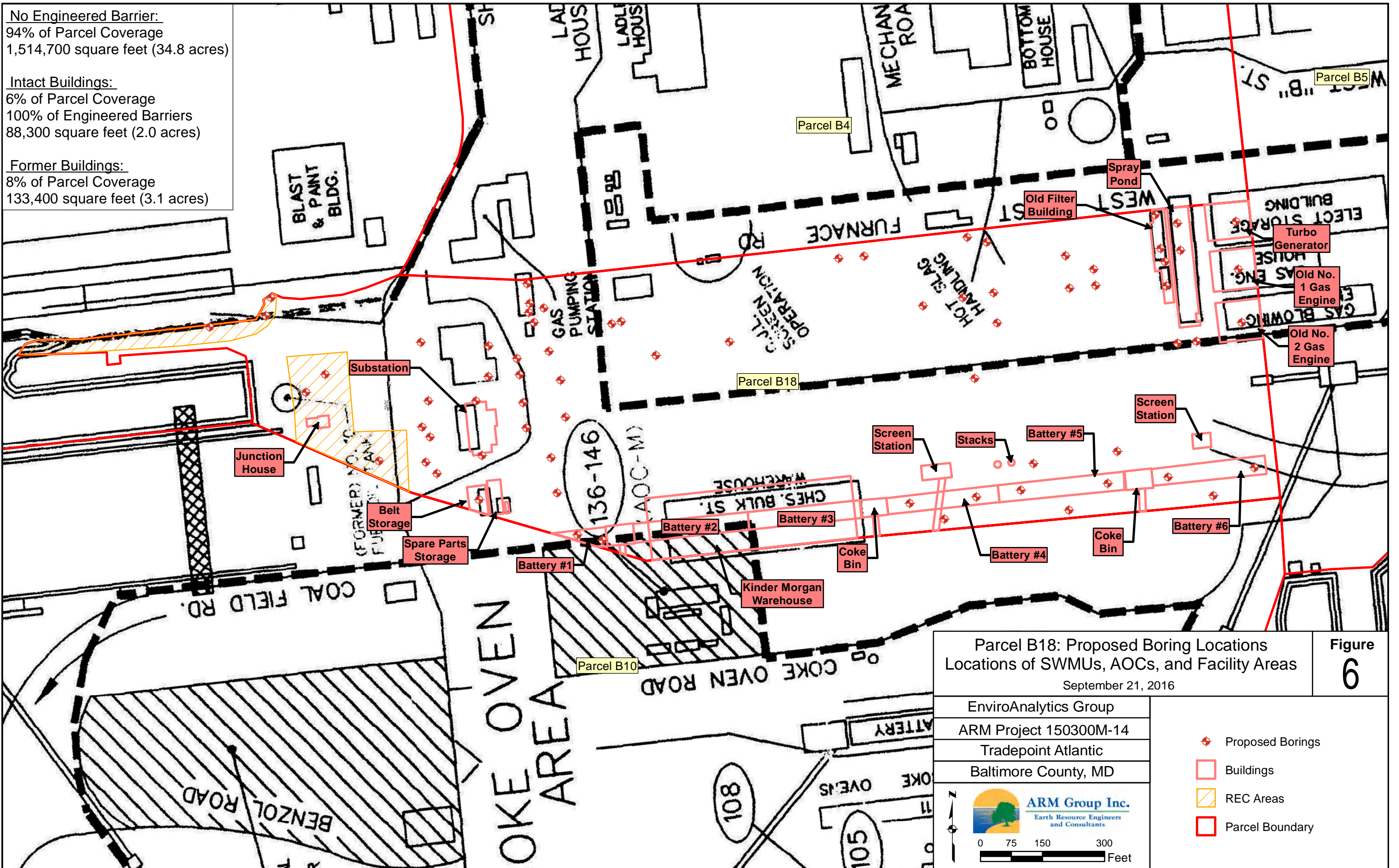
-  Proposed Borings
-  Intact Building Slabs
-  Former Buildings (Demolished)
-  Parcel Boundary

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**No Engineered Barrier:**  
 94% of Parcel Coverage  
 1,514,700 square feet (34.8 acres)

**Intact Buildings:**  
 6% of Parcel Coverage  
 100% of Engineered Barriers  
 88,300 square feet (2.0 acres)

**Former Buildings:**  
 8% of Parcel Coverage  
 133,400 square feet (3.1 acres)

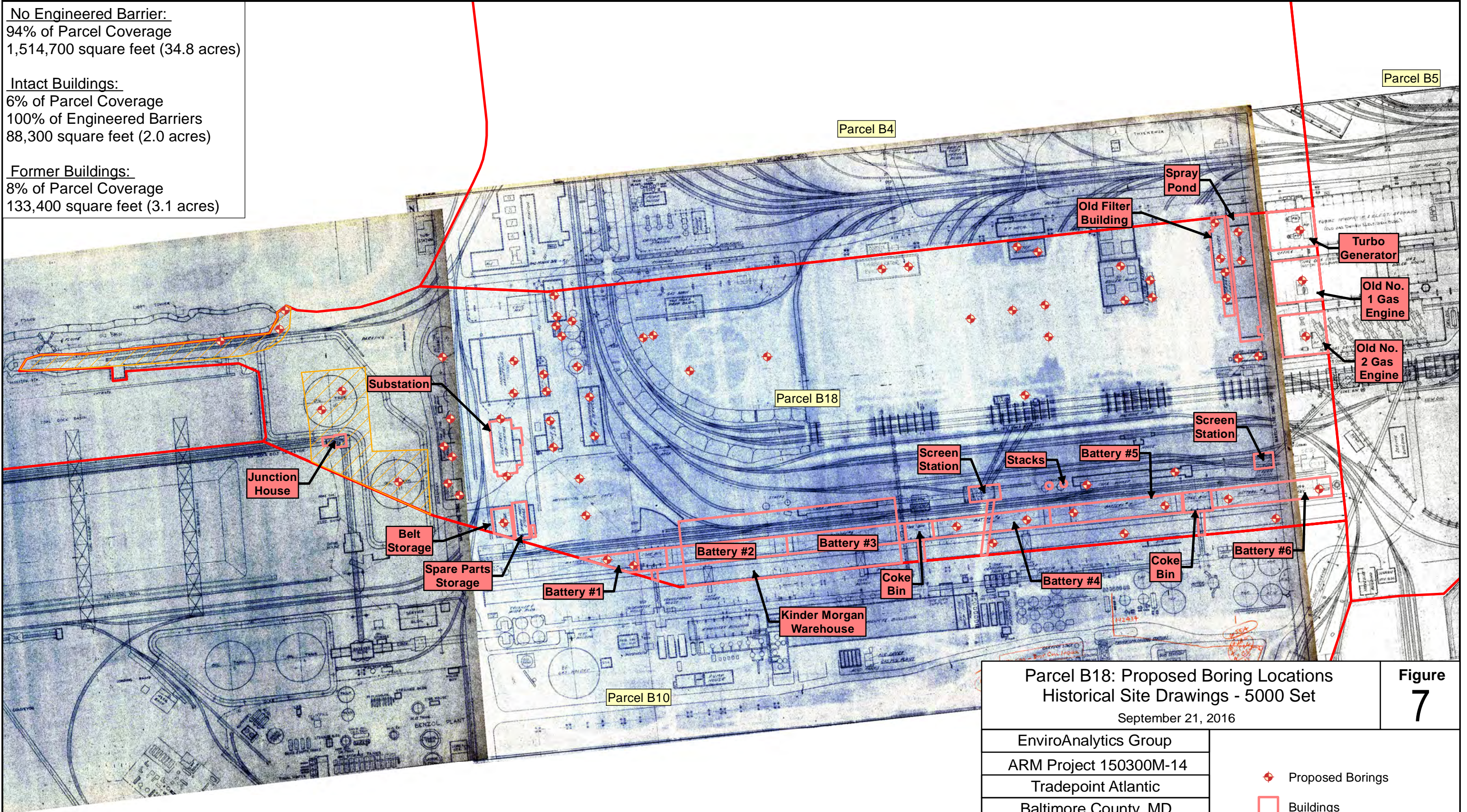


**Figure 6**

**No Engineered Barrier:**  
 94% of Parcel Coverage  
 1,514,700 square feet (34.8 acres)

**Intact Buildings:**  
 6% of Parcel Coverage  
 100% of Engineered Barriers  
 88,300 square feet (2.0 acres)


**Former Buildings:**  
 8% of Parcel Coverage  
 133,400 square feet (3.1 acres)







**Parcel B18: Proposed Boring Locations**  
**Historical Site Drawings - 5000 Set**  
 September 21, 2016

**Figure 7**

EnviroAnalytics Group  
 ARM Project 150300M-14  
 Tradepoint Atlantic  
 Baltimore County, MD

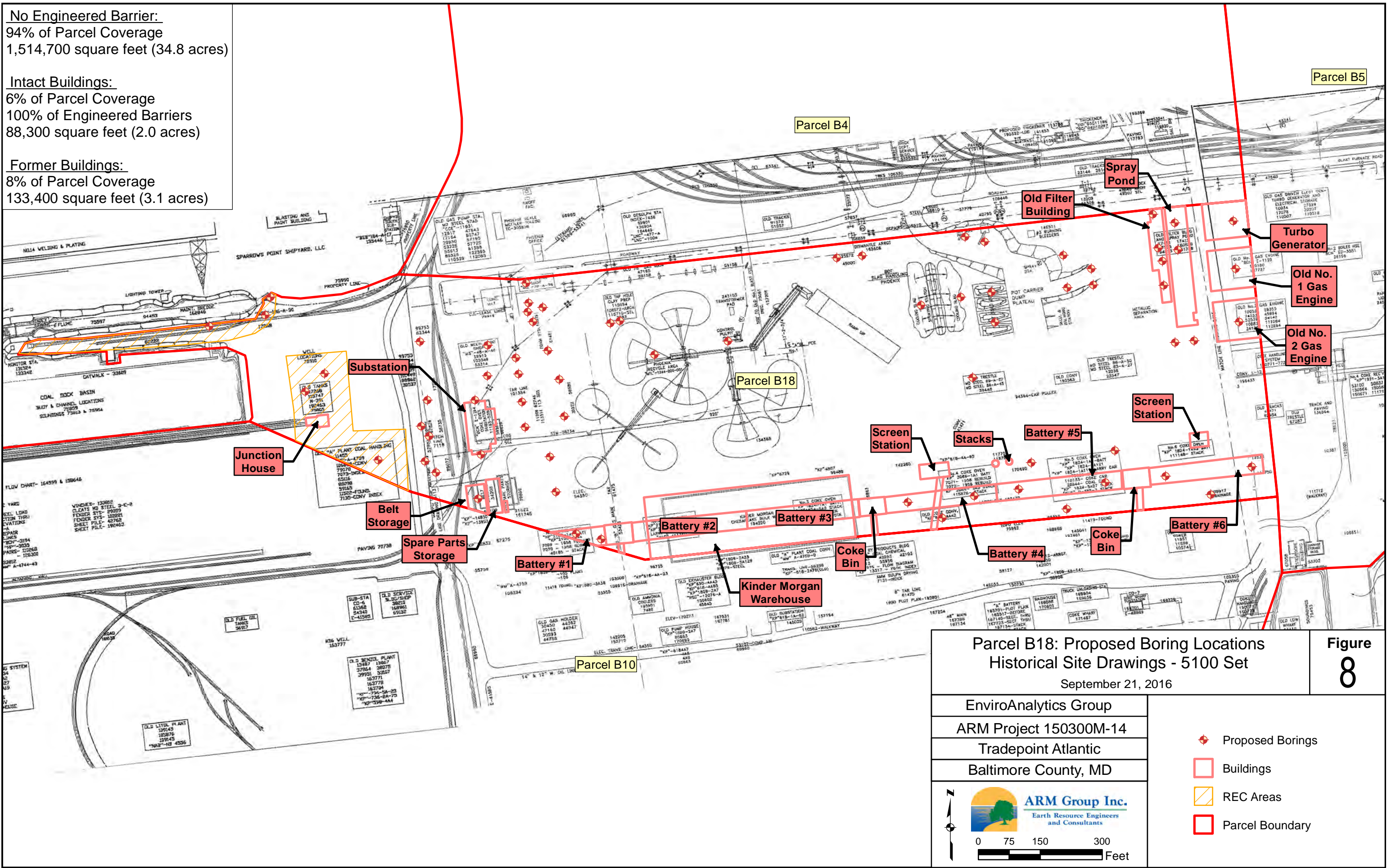

**ARM Group Inc.**  
 Earth Resource Engineers  
 and Consultants  
 0 75 150 300  
 Feet

-  Proposed Borings
-  Buildings
-  REC Areas
-  Parcel Boundary

**No Engineered Barrier:**  
 94% of Parcel Coverage  
 1,514,700 square feet (34.8 acres)

**Intact Buildings:**  
 6% of Parcel Coverage  
 100% of Engineered Barriers  
 88,300 square feet (2.0 acres)

**Former Buildings:**  
 8% of Parcel Coverage  
 133,400 square feet (3.1 acres)

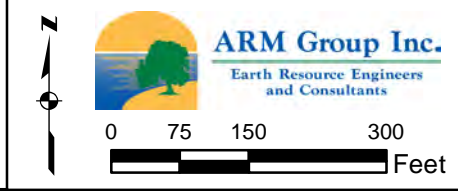


Parcel B18: Proposed Boring Locations  
 Historical Site Drawings - 5100 Set

September 21, 2016

Figure  
 8

EnviroAnalytics Group  
 ARM Project 150300M-14  
 Tradepoint Atlantic  
 Baltimore County, MD

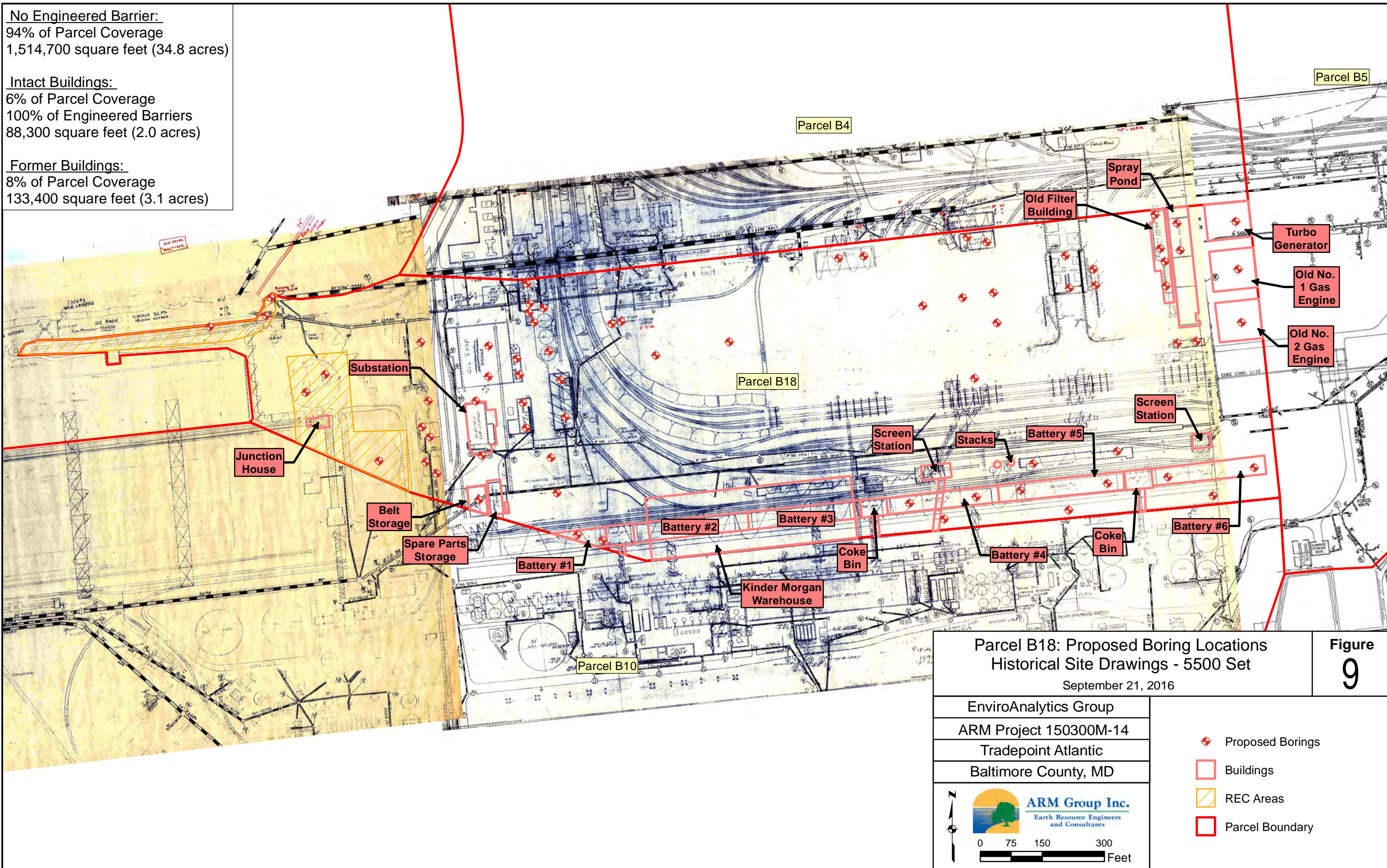


- ◆ Proposed Borings
- ▭ Buildings
- ▨ REC Areas
- ▭ Parcel Boundary

**No Engineered Barrier:**  
 94% of Parcel Coverage  
 1,514,700 square feet (34.8 acres)

**Intact Buildings:**  
 6% of Parcel Coverage  
 100% of Engineered Barriers  
 88,300 square feet (2.0 acres)

**Former Buildings:**  
 8% of Parcel Coverage  
 133,400 square feet (3.1 acres)




Parcel B18: Proposed Boring Locations  
 Historical Site Drawings - 5500 Set



September 21, 2016

Figure  
 9

EnviroAnalytics Group  
 ARM Project 150300M-14  
 Tradepoint Atlantic  
 Baltimore County, MD


**ARM Group Inc.**  
 Earth Resource Engineers  
 and Consultants

0 75 150 300 Feet

-  Proposed Borings
-  Buildings
-  REC Areas
-  Parcel Boundary





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**Parcel B18: Groundwater Locations**  
**Aerial View (From Groundwater Work Plan)**  
 September 21, 2016

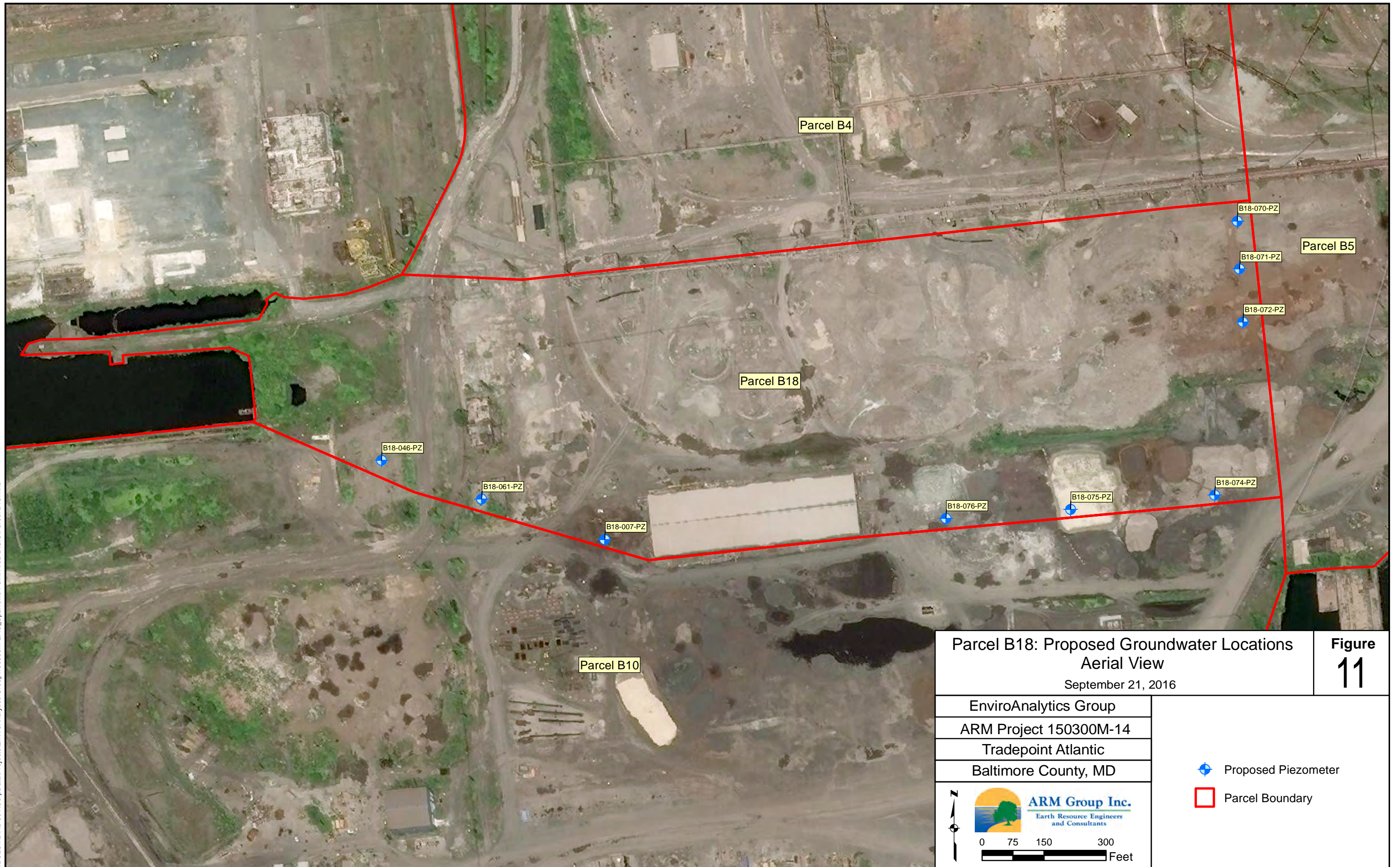
**Figure**  
**10**

EnviroAnalytics Group  
 ARM Project 150300M-14  
 Tradepoint Atlantic  
 Baltimore County, MD



**ARM Group Inc.**  
 Earth Resource Engineers  
 and Consultants  
 0 75 150 300  
 Feet

-  Area B Monitoring Well (Sampled)
-  Area B Historical Well (Damaged)
-  Parcel Boundary

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**Figure 11**

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Kinder Morgan Warehouse:  
74,962 square feet

Kinder Morgan Warehouse

Parcel B18







B18-064-SB

B18-062-SG

B18-063-SB

B18-065-SB

Parcel B10

<p>Parcel B18: Proposed Sub-Slab Soil Gas Kinder Morgan Warehouse September 21, 2016</p>		<p><b>Figure 12</b></p>
<p>EnviroAnalytics Group ARM Project 150300M-14 Tradepoint Atlantic Baltimore County, MD</p>		<ul style="list-style-type: none"> <li> Sub-Slab Soil Gas</li> <li> Stockpile Locations (approximate)</li> <li> Kinder Morgan Warehouse</li> <li> Parcel Boundary</li> </ul>
<p>  <b>ARM Group Inc.</b> Earth Resource Engineers and Consultants</p> <p>0 15 30 60 Feet</p>		

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## APPENDIX A

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Parcel B18 Kinder Morgan Warehouse  
Photograph Log  
Sparrows Point, Maryland



083116-1: Warehouse interior from bay doors on the eastern side of the building, facing west. Stockpiles visible.



083116-2: Stockpile in the northeast corner of the warehouse, facing north. Listed as "Concord Raw Zinc" on sign.

Parcel B18 Kinder Morgan Warehouse  
Photograph Log  
Sparrows Point, Maryland



083116-3: Stockpile in the southeast corner of the warehouse, facing southeast. Listed as “Concord 1MM Zinc” on sign.



083116-4: Eastern half of warehouse with open bay doors in background, facing east. Stockpiles and open areas visible.

Parcel B18 Kinder Morgan Warehouse  
Photograph Log  
Sparrows Point, Maryland



083116-5: Western half of warehouse with open bay doors in background, facing west. Stockpiles and open areas visible.



083116-6: Stockpile in the southwest corner of the warehouse, facing southeast.

Parcel B18 Kinder Morgan Warehouse  
Photograph Log  
Sparrows Point, Maryland



083116-7: Open area in the northwest corner of the warehouse, facing northeast. Open bay doors (east) visible.



083116-8: Open area in the northwest corner of the warehouse, facing southeast. Stockpiles in background.



Parcel B18 Kinder Morgan Warehouse  
Photograph Log  
Sparrows Point, Maryland



083116-9: Floor condition in northwest corner of the warehouse. Concrete floor mostly covered by thin dirt.



083116-10: Floor condition in north/central open area of the warehouse. Concrete floor mostly covered by thin dirt.

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## APPENDIX B

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Parcel B18 Historical Well Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland

Well	Zone	Screen Interval (feet bgs)	Parameter	CAS #	Sample Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
SW13-PZM003	Shallow	7-17	1,1,1-Trichloroethane	71-55-6	7/1/2004	1.0	U	200	no
SW13-PZM003	Shallow	7-17	1,1,2,2-Tetrachloroethane	79-34-5	7/1/2004	1.0	U	0.076	no
SW13-PZM003	Shallow	7-17	1,1,2-Trichloroethane	79-00-5	7/1/2004	1.0	U	5	no
SW13-PZM003	Shallow	7-17	1,1-Dichloroethane	75-34-3	7/1/2004	1.0	U	2.7	no
SW13-PZM003	Shallow	7-17	1,1-Dichloroethene	75-35-4	7/1/2004	1.0	U	7	no
SW13-PZM003	Shallow	7-17	1,2,4-Trichlorobenzene	120-82-1	7/1/2004	10	U	70	no
SW13-PZM003	Shallow	7-17	1,2-Dichlorobenzene	95-50-1	7/1/2004	10	U	600	no
SW13-PZM003	Shallow	7-17	1,2-Dichloroethane	107-06-2	7/1/2004	1.0	U	5	no
SW13-PZM003	Shallow	7-17	1,2-Dichloropropane	78-87-5	7/1/2004	1.0	U	5	no
SW13-PZM003	Shallow	7-17	1,3-Dichlorobenzene	541-73-1	7/1/2004	10	U		no
SW13-PZM003	Shallow	7-17	1,4-Dichlorobenzene	106-46-7	7/1/2004	10	U	75	no
SW13-PZM003	Shallow	7-17	2,4,5-Trichlorophenol	95-95-4	7/1/2004	10	U	1,200	no
SW13-PZM003	Shallow	7-17	2,4,6-Trichlorophenol	88-06-2	7/1/2004	10	U	4	no
SW13-PZM003	Shallow	7-17	2,4-Dichlorophenol	120-83-2	7/1/2004	10	U	46	no
SW13-PZM003	Shallow	7-17	2,4-Dimethylphenol	105-67-9	7/1/2004	10	U	360	no
SW13-PZM003	Shallow	7-17	2,4-Dinitrophenol	51-28-5	7/1/2004	50	U	39	no
SW13-PZM003	Shallow	7-17	2,4-Dinitrotoluene	121-14-2	7/1/2004	10	U	0.24	no
SW13-PZM003	Shallow	7-17	2,6-Dinitrotoluene	606-20-2	7/1/2004	10	U	0.048	no
SW13-PZM003	Shallow	7-17	2-Butanone (MEK)	78-93-3	7/1/2004	5	U	5,600	no
SW13-PZM003	Shallow	7-17	2-Chloronaphthalene	91-58-7	7/1/2004	10	U	750	no
SW13-PZM003	Shallow	7-17	2-Chlorophenol	95-57-8	7/1/2004	10	U	91	no
SW13-PZM003	Shallow	7-17	2-Hexanone	591-78-6	7/1/2004	5	U	38	no
SW13-PZM003	Shallow	7-17	2-Methylnaphthalene	91-57-6	7/1/2004	10	U	36	no
SW13-PZM003	Shallow	7-17	2-Methylphenol	95-48-7	7/1/2004	10	U	930	no
SW13-PZM003	Shallow	7-17	3,3'-Dichlorobenzidine	91-94-1	7/1/2004	20	U	0.12	no
SW13-PZM003	Shallow	7-17	4-Methyl-2-pentanone (MIBK)	108-10-1	7/1/2004	5	U	1,200	no
SW13-PZM003	Shallow	7-17	Acenaphthene	83-32-9	7/1/2004	10	U	530	no
SW13-PZM003	Shallow	7-17	Acenaphthylene	208-96-8	7/1/2004	10	U	530	no
SW13-PZM003	Shallow	7-17	Acetone	67-64-1	7/1/2004	8.3	U	14,000	no
SW13-PZM003	Shallow	7-17	Anthracene	120-12-7	7/1/2004	10	U	1,800	no
SW13-PZM003	Shallow	7-17	Antimony	7440-36-0	7/1/2004	2	U	6	no
SW13-PZM003	Shallow	7-17	Antimony, dissolved	7440-36-0	7/1/2004	2	U	6	no
SW13-PZM003	Shallow	7-17	Arsenic	7440-38-2	7/1/2004	5	J	10	no
SW13-PZM003	Shallow	7-17	Arsenic, dissolved	7440-38-2	7/1/2004	5	U	10	no
SW13-PZM003	Shallow	7-17	Barium	7440-39-3	7/1/2004	80		2,000	no
SW13-PZM003	Shallow	7-17	Barium, dissolved	7440-39-3	7/1/2004	60		2,000	no
SW13-PZM003	Shallow	7-17	Benzene	71-43-2	7/1/2004	1.0	U	5	no
SW13-PZM003	Shallow	7-17	Benzo[a]anthracene	56-55-3	7/1/2004	10	U	0.012	no
SW13-PZM003	Shallow	7-17	Benzo[a]pyrene	50-32-8	7/1/2004	10	U	0.2	no
SW13-PZM003	Shallow	7-17	Benzo[b]fluoranthene	205-99-2	7/1/2004	10	U	0.034	no
SW13-PZM003	Shallow	7-17	Benzo[g,h,i]perylene	191-24-2	7/1/2004	10	U		no
SW13-PZM003	Shallow	7-17	Benzo[k]fluoranthene	207-08-9	7/1/2004	10	U	0.34	no
SW13-PZM003	Shallow	7-17	Beryllium	7440-41-7	7/1/2004	1.0	U	4	no
SW13-PZM003	Shallow	7-17	Beryllium, dissolved	7440-41-7	7/1/2004	1.0	U	4	no
SW13-PZM003	Shallow	7-17	bis(2-Chloroethoxy)methane	111-91-1	7/1/2004	10	U	59	no
SW13-PZM003	Shallow	7-17	bis(2-Chloroethyl)ether	111-44-4	7/1/2004	10	U	0.014	no
SW13-PZM003	Shallow	7-17	bis(2-Ethylhexyl)phthalate	117-81-7	7/1/2004	13		6	YES
SW13-PZM003	Shallow	7-17	Bromoform	75-25-2	7/1/2004	1.0	U	3.3	no
SW13-PZM003	Shallow	7-17	Cadmium	7440-43-9	7/1/2004	1.0	U	5	no
SW13-PZM003	Shallow	7-17	Cadmium, dissolved	7440-43-9	7/1/2004	1.0	U	5	no
SW13-PZM003	Shallow	7-17	Calcium	7440-70-2	12/19/2000	99,000			no
SW13-PZM003	Shallow	7-17	Carbon disulfide	75-15-0	7/1/2004	1.0	U	810	no
SW13-PZM003	Shallow	7-17	Carbon tetrachloride	56-23-5	7/1/2004	1.0	U	5	no
SW13-PZM003	Shallow	7-17	Chlorobenzene	108-90-7	7/1/2004	1.0	U	100	no
SW13-PZM003	Shallow	7-17	Chloroethane	75-00-3	7/1/2004	1.0	U	21,000	no
SW13-PZM003	Shallow	7-17	Chloroform	67-66-3	7/1/2004	1.5	U	0.22	YES
SW13-PZM003	Shallow	7-17	Chromium	7440-47-3	7/1/2004	23	U	100	no
SW13-PZM003	Shallow	7-17	Chromium, dissolved	7440-47-3	7/1/2004	17	U	100	no
SW13-PZM003	Shallow	7-17	Chrysene	218-01-9	7/1/2004	10	U	3.4	no
SW13-PZM003	Shallow	7-17	cis-1,3-Dichloropropene	10061-01-5	7/1/2004	1.0	U		no
SW13-PZM003	Shallow	7-17	Cobalt	7440-48-4	7/1/2004	1.0	U	6	no
SW13-PZM003	Shallow	7-17	Cobalt, dissolved	7440-48-4	7/1/2004	1.0	U	6	no
SW13-PZM003	Shallow	7-17	Copper	7440-50-8	7/1/2004	6.8		1,300	no
SW13-PZM003	Shallow	7-17	Copper, dissolved	7440-50-8	7/1/2004	2	J	1,300	no
SW13-PZM003	Shallow	7-17	Cyanide, available	57-12-5	7/1/2004	2	U	200	no

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SW13-PZM003	Shallow	7-17	Cyanide, total	57-12-5	7/1/2004	120		200	no
SW13-PZM003	Shallow	7-17	Dibenz[a,h]anthracene	53-70-3	7/1/2004	10	U	0.0034	no
SW13-PZM003	Shallow	7-17	Diethylphthalate	84-66-2	7/1/2004	10	U	15,000	no
SW13-PZM003	Shallow	7-17	Di-n-butylphthalate	84-74-2	7/1/2004	10	U	900	no
SW13-PZM003	Shallow	7-17	Di-n-octylphthalate	117-84-0	7/1/2004	10	U	200	no
SW13-PZM003	Shallow	7-17	Ethylbenzene	100-41-4	7/1/2004	1.0	U	700	no
SW13-PZM003	Shallow	7-17	Fluoranthene	206-44-0	7/1/2004	10	U	800	no
SW13-PZM003	Shallow	7-17	Fluorene	86-73-7	7/1/2004	10	U	290	no
SW13-PZM003	Shallow	7-17	Hexachlorobenzene	118-74-1	7/1/2004	10	U	1	no
SW13-PZM003	Shallow	7-17	Hexachlorobutadiene	87-68-3	7/1/2004	10	U	0.14	no
SW13-PZM003	Shallow	7-17	Hexachlorocyclopentadiene	77-47-4	7/1/2004	10	U	50	no
SW13-PZM003	Shallow	7-17	Hexachloroethane	67-72-1	7/1/2004	10	U	0.33	no
SW13-PZM003	Shallow	7-17	Indeno[1,2,3-cd]pyrene	193-39-5	7/1/2004	10	U	0.034	no
SW13-PZM003	Shallow	7-17	Iron	7439-89-6	7/1/2004	2,200		14,000	no
SW13-PZM003	Shallow	7-17	Iron	7439-89-6	12/19/2000	1,600		14,000	no
SW13-PZM003	Shallow	7-17	Iron	7439-89-6	10/1/2000	1,600		14,000	no
SW13-PZM003	Shallow	7-17	Isophorone	78-59-1	7/1/2004	10	U	78	no
SW13-PZM003	Shallow	7-17	Lead	7439-92-1	7/1/2004	7.2	U	15	no
SW13-PZM003	Shallow	7-17	Lead, dissolved	7439-92-1	7/1/2004	1.1	U	15	no
SW13-PZM003	Shallow	7-17	Magnesium	7439-95-4	12/19/2000	13,000			no
SW13-PZM003	Shallow	7-17	Manganese	7439-96-5	12/19/2000	190		430	no
SW13-PZM003	Shallow	7-17	Mercury	7439-97-6	7/1/2004	0.2	U	2	no
SW13-PZM003	Shallow	7-17	Mercury, dissolved	7439-97-6	7/1/2004	0.2	U	2	no
SW13-PZM003	Shallow	7-17	Methylene chloride	75-09-2	7/1/2004	10	U	5	no
SW13-PZM003	Shallow	7-17	Naphthalene	91-20-3	7/1/2004	10	U	0.17	no
SW13-PZM003	Shallow	7-17	Nickel	7440-02-0	7/1/2004	3.2	U	390	no
SW13-PZM003	Shallow	7-17	Nickel, dissolved	7440-02-0	7/1/2004	2.2	U	390	no
SW13-PZM003	Shallow	7-17	Nitrobenzene	98-95-3	7/1/2004	10	U	0.14	no
SW13-PZM003	Shallow	7-17	Pentachlorophenol	87-86-5	7/1/2004	50	U	1	no
SW13-PZM003	Shallow	7-17	Phenanthrene	85-01-8	7/1/2004	10	U		no
SW13-PZM003	Shallow	7-17	Phenol	108-95-2	7/1/2004	10	U	5,800	no
SW13-PZM003	Shallow	7-17	Potassium	7440-09-7	12/19/2000	8,500			no
SW13-PZM003	Shallow	7-17	Pyrene	129-00-0	7/1/2004	10	U	120	no
SW13-PZM003	Shallow	7-17	Selenium	7782-49-2	7/1/2004	5	U	50	no
SW13-PZM003	Shallow	7-17	Selenium, dissolved	7782-49-2	7/1/2004	5	U	50	no
SW13-PZM003	Shallow	7-17	Silver	7440-22-4	7/1/2004	5	U	94	no
SW13-PZM003	Shallow	7-17	Silver, dissolved	7440-22-4	7/1/2004	5	U	94	no
SW13-PZM003	Shallow	7-17	Sodium	7440-23-5	12/19/2000	46,000			no
SW13-PZM003	Shallow	7-17	Tetrachloroethene	127-18-4	7/1/2004	1.0	U	5	no
SW13-PZM003	Shallow	7-17	Thallium	7440-28-0	7/1/2004	1.0	U	2	no
SW13-PZM003	Shallow	7-17	Thallium, dissolved	7440-28-0	7/1/2004	1.0	U	2	no
SW13-PZM003	Shallow	7-17	Toluene	108-88-3	7/1/2004	0.9	J	1,000	no
SW13-PZM003	Shallow	7-17	trans-1,2-Dichloroethene	156-60-5	7/1/2004	1.0	U	100	no
SW13-PZM003	Shallow	7-17	trans-1,3-Dichloropropene	10061-02-6	7/1/2004	1.0	U		no
SW13-PZM003	Shallow	7-17	Trichloroethene	79-01-6	7/1/2004	1.0	U	5	no
SW13-PZM003	Shallow	7-17	Vanadium	7440-62-2	7/1/2004	30		86	no
SW13-PZM003	Shallow	7-17	Vanadium, dissolved	7440-62-2	7/1/2004	20		86	no
SW13-PZM003	Shallow	7-17	Vinyl chloride	75-01-4	7/1/2004	1.0	U	2	no
SW13-PZM003	Shallow	7-17	Xylenes	1330-20-7	7/1/2004	2	J	10,000	no
SW13-PZM003	Shallow	7-17	Zinc	7440-66-6	7/1/2004	50		6,000	no
SW13-PZM003	Shallow	7-17	Zinc, dissolved	7440-66-6	7/1/2004	10		6,000	no
SW13-PZM025	Intermediate	36-39	1,1,1-Trichloroethane	71-55-6	7/1/2004	1.0	U	200	no
SW13-PZM025	Intermediate	36-39	1,1,1-Trichloroethane	71-55-6	10/1/2002	1.0	U	200	no
SW13-PZM025	Intermediate	36-39	1,1,2,2-Tetrachloroethane	79-34-5	7/1/2004	1.0	U	0.076	no
SW13-PZM025	Intermediate	36-39	1,1,2-Trichloroethane	79-00-5	7/1/2004	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	1,1-Dichloroethane	75-34-3	7/1/2004	1.0	U	2.7	no
SW13-PZM025	Intermediate	36-39	1,1-Dichloroethane	75-34-3	10/1/2002	1.0	U	2.7	no
SW13-PZM025	Intermediate	36-39	1,1-Dichloroethane	75-35-4	7/1/2004	1.0	U	7	no
SW13-PZM025	Intermediate	36-39	1,1-Dichloroethane	75-35-4	10/1/2002	1.0	U	7	no
SW13-PZM025	Intermediate	36-39	1,2,4-Trichlorobenzene	120-82-1	7/1/2004	10	U	70	no
SW13-PZM025	Intermediate	36-39	1,2-Dichlorobenzene	95-50-1	7/1/2004	10	U	600	no
SW13-PZM025	Intermediate	36-39	1,2-Dichloroethane	107-06-2	7/1/2004	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	1,2-Dichloroethane	107-06-2	10/1/2002	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	1,2-Dichloropropane	78-87-5	7/1/2004	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	1,3-Dichlorobenzene	541-73-1	7/1/2004	10	U		no

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SW13-PZM025	Intermediate	36-39	1,4-Dichlorobenzene	106-46-7	7/1/2004	10	U	75	no
SW13-PZM025	Intermediate	36-39	2,4,5-Trichlorophenol	95-95-4	7/1/2004	10	U	1,200	no
SW13-PZM025	Intermediate	36-39	2,4,6-Trichlorophenol	88-06-2	7/1/2004	10	U	4	no
SW13-PZM025	Intermediate	36-39	2,4-Dichlorophenol	120-83-2	7/1/2004	10	U	46	no
SW13-PZM025	Intermediate	36-39	2,4-Dimethylphenol	105-67-9	7/1/2004	10	U	360	no
SW13-PZM025	Intermediate	36-39	2,4-Dinitrophenol	51-28-5	7/1/2004	50	U	39	no
SW13-PZM025	Intermediate	36-39	2,4-Dinitrotoluene	121-14-2	7/1/2004	10	U	0.24	no
SW13-PZM025	Intermediate	36-39	2,6-Dinitrotoluene	606-20-2	7/1/2004	10	U	0.048	no
SW13-PZM025	Intermediate	36-39	2-Butanone (MEK)	78-93-3	7/1/2004	5	U	5,600	no
SW13-PZM025	Intermediate	36-39	2-Chloronaphthalene	91-58-7	7/1/2004	10	U	750	no
SW13-PZM025	Intermediate	36-39	2-Chlorophenol	95-57-8	7/1/2004	10	U	91	no
SW13-PZM025	Intermediate	36-39	2-Hexanone	591-78-6	7/1/2004	5	U	38	no
SW13-PZM025	Intermediate	36-39	2-Methylnaphthalene	91-57-6	7/1/2004	10	U	36	no
SW13-PZM025	Intermediate	36-39	2-Methylphenol	95-48-7	7/1/2004	10	U	930	no
SW13-PZM025	Intermediate	36-39	3,3'-Dichlorobenzidine	91-94-1	7/1/2004	20	U	0.12	no
SW13-PZM025	Intermediate	36-39	4-Methyl-2-pentanone (MIBK)	108-10-1	7/1/2004	5	U	1,200	no
SW13-PZM025	Intermediate	36-39	Acenaphthene	83-32-9	7/1/2004	10	U	530	no
SW13-PZM025	Intermediate	36-39	Acenaphthylene	208-96-8	7/1/2004	10	U	530	no
SW13-PZM025	Intermediate	36-39	Acetone	67-64-1	7/1/2004	5	U	14,000	no
SW13-PZM025	Intermediate	36-39	Anthracene	120-12-7	7/1/2004	10	U	1,800	no
SW13-PZM025	Intermediate	36-39	Antimony	7440-36-0	7/1/2004	3.1	U	6	no
SW13-PZM025	Intermediate	36-39	Antimony, dissolved	7440-36-0	7/1/2004	2.7	U	6	no
SW13-PZM025	Intermediate	36-39	Arsenic	7440-38-2	7/1/2004	8.5	U	10	no
SW13-PZM025	Intermediate	36-39	Arsenic, dissolved	7440-38-2	7/1/2004	10	U	10	no
SW13-PZM025	Intermediate	36-39	Barium	7440-39-3	7/1/2004	110	U	2,000	no
SW13-PZM025	Intermediate	36-39	Barium, dissolved	7440-39-3	7/1/2004	100	U	2,000	no
SW13-PZM025	Intermediate	36-39	Benzene	71-43-2	7/1/2004	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Benzene	71-43-2	10/1/2002	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Benzo[a]anthracene	56-55-3	7/1/2004	10	U	0.012	no
SW13-PZM025	Intermediate	36-39	Benzo[a]pyrene	50-32-8	7/1/2004	10	U	0.2	no
SW13-PZM025	Intermediate	36-39	Benzo[b]fluoranthene	205-99-2	7/1/2004	10	U	0.034	no
SW13-PZM025	Intermediate	36-39	Benzo[g,h,i]perylene	191-24-2	7/1/2004	10	U	no	no
SW13-PZM025	Intermediate	36-39	Benzo[k]fluoranthene	207-08-9	7/1/2004	10	U	0.34	no
SW13-PZM025	Intermediate	36-39	Beryllium	7440-41-7	7/1/2004	1.0	U	4	no
SW13-PZM025	Intermediate	36-39	Beryllium, dissolved	7440-41-7	7/1/2004	1.0	U	4	no
SW13-PZM025	Intermediate	36-39	bis(2-Chloroethoxy)methane	111-91-1	7/1/2004	10	U	59	no
SW13-PZM025	Intermediate	36-39	bis(2-Chloroethyl)ether	111-44-4	7/1/2004	10	U	0.014	no
SW13-PZM025	Intermediate	36-39	bis(2-Ethylhexyl)phthalate	117-81-7	7/1/2004	5.9	J	6	no
SW13-PZM025	Intermediate	36-39	Bromoform	75-25-2	7/1/2004	1.0	U	3.3	no
SW13-PZM025	Intermediate	36-39	Cadmium	7440-43-9	7/1/2004	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Cadmium, dissolved	7440-43-9	7/1/2004	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Calcium	7440-70-2	12/19/2000	160,000	U	no	no
SW13-PZM025	Intermediate	36-39	Carbon disulfide	75-15-0	7/1/2004	1.0	U	810	no
SW13-PZM025	Intermediate	36-39	Carbon tetrachloride	56-23-5	7/1/2004	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Carbon tetrachloride	56-23-5	10/1/2002	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Chlorobenzene	108-90-7	7/1/2004	1.0	U	100	no
SW13-PZM025	Intermediate	36-39	Chlorobenzene	108-90-7	10/1/2002	1.0	U	100	no
SW13-PZM025	Intermediate	36-39	Chloroethane	75-00-3	7/1/2004	1.0	U	21,000	no
SW13-PZM025	Intermediate	36-39	Chloroform	67-66-3	7/1/2004	1.0	U	0.22	no
SW13-PZM025	Intermediate	36-39	Chromium	7440-47-3	7/1/2004	5.4	U	100	no
SW13-PZM025	Intermediate	36-39	Chromium, dissolved	7440-47-3	7/1/2004	5.6	U	100	no
SW13-PZM025	Intermediate	36-39	Chrysene	218-01-9	7/1/2004	10	U	3.4	no
SW13-PZM025	Intermediate	36-39	cis-1,3-Dichloropropene	10061-01-5	7/1/2004	1.0	U	no	no
SW13-PZM025	Intermediate	36-39	Cobalt	7440-48-4	7/1/2004	5.7	U	6	no
SW13-PZM025	Intermediate	36-39	Cobalt, dissolved	7440-48-4	7/1/2004	5.6	U	6	no
SW13-PZM025	Intermediate	36-39	Copper	7440-50-8	7/1/2004	4.2	J	1,300	no
SW13-PZM025	Intermediate	36-39	Copper, dissolved	7440-50-8	7/1/2004	3.5	U	1,300	no
SW13-PZM025	Intermediate	36-39	Cyanide, available	57-12-5	7/1/2004	2	UL	200	no
SW13-PZM025	Intermediate	36-39	Cyanide, total	57-12-5	7/1/2004	4.1	U	200	no
SW13-PZM025	Intermediate	36-39	Dibenz[a,h]anthracene	53-70-3	7/1/2004	10	U	0.0034	no
SW13-PZM025	Intermediate	36-39	Diethylphthalate	84-66-2	7/1/2004	10	U	15,000	no
SW13-PZM025	Intermediate	36-39	Di-n-butylphthalate	84-74-2	7/1/2004	10	U	900	no
SW13-PZM025	Intermediate	36-39	Di-n-octylphthalate	117-84-0	7/1/2004	10	U	200	no
SW13-PZM025	Intermediate	36-39	Ethylbenzene	100-41-4	7/1/2004	1.0	U	700	no
SW13-PZM025	Intermediate	36-39	Ethylbenzene	100-41-4	10/1/2002	1.0	U	700	no

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SW13-PZM025	Intermediate	36-39	Fluoranthene	206-44-0	7/1/2004	10	U	800	no
SW13-PZM025	Intermediate	36-39	Fluorene	86-73-7	7/1/2004	10	U	290	no
SW13-PZM025	Intermediate	36-39	Hexachlorobenzene	118-74-1	7/1/2004	10	U	1	no
SW13-PZM025	Intermediate	36-39	Hexachlorobutadiene	87-68-3	7/1/2004	10	U	0.14	no
SW13-PZM025	Intermediate	36-39	Hexachlorocyclopentadiene	77-47-4	7/1/2004	10	U	50	no
SW13-PZM025	Intermediate	36-39	Hexachloroethane	67-72-1	7/1/2004	10	U	0.33	no
SW13-PZM025	Intermediate	36-39	Indeno[1,2,3-cd]pyrene	193-39-5	7/1/2004	10	U	0.034	no
SW13-PZM025	Intermediate	36-39	Iron	7439-89-6	7/1/2004	45,000		14,000	YES
SW13-PZM025	Intermediate	36-39	Iron	7439-89-6	12/19/2000	54,000		14,000	YES
SW13-PZM025	Intermediate	36-39	Iron	7439-89-6	10/1/2000	54,000		14,000	YES
SW13-PZM025	Intermediate	36-39	Isophorone	78-59-1	7/1/2004	10	U	78	no
SW13-PZM025	Intermediate	36-39	Lead	7439-92-1	7/1/2004	1.0	UJ	15	no
SW13-PZM025	Intermediate	36-39	Lead, dissolved	7439-92-1	7/1/2004	1.1	U	15	no
SW13-PZM025	Intermediate	36-39	Magnesium	7439-95-4	12/19/2000	53,000			no
SW13-PZM025	Intermediate	36-39	Manganese	7439-96-5	12/19/2000	2,400		430	YES
SW13-PZM025	Intermediate	36-39	Mercury	7439-97-6	7/1/2004	0.2	U	2	no
SW13-PZM025	Intermediate	36-39	Mercury, dissolved	7439-97-6	7/1/2004	0.2	U	2	no
SW13-PZM025	Intermediate	36-39	Methylene chloride	75-09-2	7/1/2004	3.1	U	5	no
SW13-PZM025	Intermediate	36-39	Methylene chloride	75-09-2	10/1/2002	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Naphthalene	91-20-3	7/1/2004	10	U	0.17	no
SW13-PZM025	Intermediate	36-39	Naphthalene	91-20-3	10/1/2002	1.0	U	0.17	no
SW13-PZM025	Intermediate	36-39	Nickel	7440-02-0	7/1/2004	12	U	390	no
SW13-PZM025	Intermediate	36-39	Nickel, dissolved	7440-02-0	7/1/2004	11	U	390	no
SW13-PZM025	Intermediate	36-39	Nitrobenzene	98-95-3	7/1/2004	10	U	0.14	no
SW13-PZM025	Intermediate	36-39	Pentachlorophenol	87-86-5	7/1/2004	50	U	1	no
SW13-PZM025	Intermediate	36-39	Phenanthrene	85-01-8	7/1/2004	10	U		no
SW13-PZM025	Intermediate	36-39	Phenol	108-95-2	7/1/2004	10	U	5,800	no
SW13-PZM025	Intermediate	36-39	Potassium	7440-09-7	12/19/2000	4,400			no
SW13-PZM025	Intermediate	36-39	Pyrene	129-00-0	7/1/2004	10	U	120	no
SW13-PZM025	Intermediate	36-39	Selenium	7782-49-2	7/1/2004	9		50	no
SW13-PZM025	Intermediate	36-39	Selenium, dissolved	7782-49-2	7/1/2004	8.3		50	no
SW13-PZM025	Intermediate	36-39	Silver	7440-22-4	7/1/2004	5	U	94	no
SW13-PZM025	Intermediate	36-39	Silver, dissolved	7440-22-4	7/1/2004	5	U	94	no
SW13-PZM025	Intermediate	36-39	Sodium	7440-23-5	12/19/2000	390,000			no
SW13-PZM025	Intermediate	36-39	Tetrachloroethene	127-18-4	7/1/2004	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Tetrachloroethene	127-18-4	10/1/2002	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Thallium	7440-28-0	7/1/2004	1.0	U	2	no
SW13-PZM025	Intermediate	36-39	Thallium, dissolved	7440-28-0	7/1/2004	1.0	U	2	no
SW13-PZM025	Intermediate	36-39	Toluene	108-88-3	7/1/2004	1.0	U	1,000	no
SW13-PZM025	Intermediate	36-39	Toluene	108-88-3	10/1/2002	1.0	U	1,000	no
SW13-PZM025	Intermediate	36-39	trans-1,2-Dichloroethene	156-60-5	7/1/2004	1.0	U	100	no
SW13-PZM025	Intermediate	36-39	trans-1,2-Dichloroethene	156-60-5	10/1/2002	1.0	U	100	no
SW13-PZM025	Intermediate	36-39	trans-1,3-Dichloropropene	10061-02-6	7/1/2004	1.0	U		no
SW13-PZM025	Intermediate	36-39	Trichloroethene	79-01-6	7/1/2004	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Trichloroethene	79-01-6	10/1/2002	1.0	U	5	no
SW13-PZM025	Intermediate	36-39	Vanadium	7440-62-2	7/1/2004	5	U	86	no
SW13-PZM025	Intermediate	36-39	Vanadium, dissolved	7440-62-2	7/1/2004	5	U	86	no
SW13-PZM025	Intermediate	36-39	Vinyl chloride	75-01-4	7/1/2004	1.0	U	2	no
SW13-PZM025	Intermediate	36-39	Vinyl chloride	75-01-4	10/1/2002	1.0	U	2	no
SW13-PZM025	Intermediate	36-39	Xylenes	1330-20-7	7/1/2004	1.0	U	10,000	no
SW13-PZM025	Intermediate	36-39	Xylenes	1330-20-7	10/1/2002	2	UJ	10,000	no
SW13-PZM025	Intermediate	36-39	Zinc	7440-66-6	7/1/2004	10	UJ	6,000	no
SW13-PZM025	Intermediate	36-39	Zinc, dissolved	7440-66-6	7/1/2004	10	U	6,000	no
SW13-PZM111	Lower	120-125	1,1,1-Trichloroethane	71-55-6	7/1/2004	1.0	U	200	no
SW13-PZM111	Lower	120-125	1,1,1-Trichloroethane	71-55-6	10/1/2002	5	U	200	no
SW13-PZM111	Lower	120-125	1,1,2,2-Tetrachloroethane	79-34-5	7/1/2004	1.0	U	0.076	no
SW13-PZM111	Lower	120-125	1,1,2,2-Tetrachloroethane	79-34-5	10/1/2002	5	U	0.076	no
SW13-PZM111	Lower	120-125	1,1,2-Trichloroethane	79-00-5	7/1/2004	1.0	U	5	no
SW13-PZM111	Lower	120-125	1,1,2-Trichloroethane	79-00-5	10/1/2002	5	U	5	no
SW13-PZM111	Lower	120-125	1,1-Dichloroethane	75-34-3	7/1/2004	1.0	U	2.7	no
SW13-PZM111	Lower	120-125	1,1-Dichloroethane	75-34-3	10/1/2002	5	U	2.7	no
SW13-PZM111	Lower	120-125	1,1-Dichloroethane	75-35-4	7/1/2004	1.0	U	7	no
SW13-PZM111	Lower	120-125	1,1-Dichloroethane	75-35-4	10/1/2002	5	U	7	no
SW13-PZM111	Lower	120-125	1,2,4-Trichlorobenzene	120-82-1	7/1/2004	10	U	70	no
SW13-PZM111	Lower	120-125	1,2,4-Trichlorobenzene	120-82-1	10/1/2002	10	U	70	no

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SW13-PZM111	Lower	120-125	1,2-Dichlorobenzene	95-50-1	7/1/2004	10	U	600	no
SW13-PZM111	Lower	120-125	1,2-Dichloroethane	107-06-2	7/1/2004	1.0	U	5	no
SW13-PZM111	Lower	120-125	1,2-Dichloroethane	107-06-2	10/1/2002	5	U	5	no
SW13-PZM111	Lower	120-125	1,2-Dichloropropane	78-87-5	7/1/2004	1.0	U	5	no
SW13-PZM111	Lower	120-125	1,2-Dichloropropane	78-87-5	10/1/2002	5	U	5	no
SW13-PZM111	Lower	120-125	1,3-Dichlorobenzene	541-73-1	7/1/2004	10	U		no
SW13-PZM111	Lower	120-125	1,3-Dichlorobenzene	541-73-1	10/1/2002	10	U		no
SW13-PZM111	Lower	120-125	1,4-Dichlorobenzene	106-46-7	7/1/2004	10	U	75	no
SW13-PZM111	Lower	120-125	2,4,5-Trichlorophenol	95-95-4	7/1/2004	10	U	1,200	no
SW13-PZM111	Lower	120-125	2,4,5-Trichlorophenol	95-95-4	10/1/2002	10	U	1,200	no
SW13-PZM111	Lower	120-125	2,4,6-Trichlorophenol	88-06-2	7/1/2004	10	U	4	no
SW13-PZM111	Lower	120-125	2,4,6-Trichlorophenol	88-06-2	10/1/2002	10	U	4	no
SW13-PZM111	Lower	120-125	2,4-Dichlorophenol	120-83-2	7/1/2004	10	U	46	no
SW13-PZM111	Lower	120-125	2,4-Dichlorophenol	120-83-2	10/1/2002	10	U	46	no
SW13-PZM111	Lower	120-125	2,4-Dimethylphenol	105-67-9	7/1/2004	10	U	360	no
SW13-PZM111	Lower	120-125	2,4-Dimethylphenol	105-67-9	10/1/2002	10	U	360	no
SW13-PZM111	Lower	120-125	2,4-Dinitrophenol	51-28-5	7/1/2004	50	U	39	no
SW13-PZM111	Lower	120-125	2,4-Dinitrophenol	51-28-5	10/1/2002	50	U	39	no
SW13-PZM111	Lower	120-125	2,4-Dinitrotoluene	121-14-2	7/1/2004	10	U	0.24	no
SW13-PZM111	Lower	120-125	2,4-Dinitrotoluene	121-14-2	10/1/2002	10	U	0.24	no
SW13-PZM111	Lower	120-125	2,6-Dinitrotoluene	606-20-2	7/1/2004	10	U	0.048	no
SW13-PZM111	Lower	120-125	2,6-Dinitrotoluene	606-20-2	10/1/2002	10	U	0.048	no
SW13-PZM111	Lower	120-125	2-Butanone (MEK)	78-93-3	7/1/2004	5	U	5,600	no
SW13-PZM111	Lower	120-125	2-Butanone (MEK)	78-93-3	10/1/2002	100	U	5,600	no
SW13-PZM111	Lower	120-125	2-Chloronaphthalene	91-58-7	7/1/2004	10	U	750	no
SW13-PZM111	Lower	120-125	2-Chloronaphthalene	91-58-7	10/1/2002	10	U	750	no
SW13-PZM111	Lower	120-125	2-Chlorophenol	95-57-8	7/1/2004	10	U	91	no
SW13-PZM111	Lower	120-125	2-Chlorophenol	95-57-8	10/1/2002	10	U	91	no
SW13-PZM111	Lower	120-125	2-Hexanone	591-78-6	7/1/2004	5	U	38	no
SW13-PZM111	Lower	120-125	2-Hexanone	591-78-6	10/1/2002	50	U	38	no
SW13-PZM111	Lower	120-125	2-Methylnaphthalene	91-57-6	7/1/2004	10	U	36	no
SW13-PZM111	Lower	120-125	2-Methylnaphthalene	91-57-6	10/1/2002	10	U	36	no
SW13-PZM111	Lower	120-125	2-Methylphenol	95-48-7	7/1/2004	10	U	930	no
SW13-PZM111	Lower	120-125	2-Methylphenol	95-48-7	10/1/2002	10	U	930	no
SW13-PZM111	Lower	120-125	3,3'-Dichlorobenzidine	91-94-1	7/1/2004	20	U	0.12	no
SW13-PZM111	Lower	120-125	3,3'-Dichlorobenzidine	91-94-1	10/1/2002	20	U	0.12	no
SW13-PZM111	Lower	120-125	4-Methyl-2-pentanone (MIBK)	108-10-1	7/1/2004	5	U	1,200	no
SW13-PZM111	Lower	120-125	4-Methyl-2-pentanone (MIBK)	108-10-1	10/1/2002	50	U	1,200	no
SW13-PZM111	Lower	120-125	Acenaphthene	83-32-9	7/1/2004	10	U	530	no
SW13-PZM111	Lower	120-125	Acenaphthene	83-32-9	10/1/2002	10	U	530	no
SW13-PZM111	Lower	120-125	Acenaphthylene	208-96-8	7/1/2004	10	U	530	no
SW13-PZM111	Lower	120-125	Acenaphthylene	208-96-8	10/1/2002	10	U	530	no
SW13-PZM111	Lower	120-125	Acetone	67-64-1	7/1/2004	10	U	14,000	no
SW13-PZM111	Lower	120-125	Acetone	67-64-1	10/1/2002	100	U	14,000	no
SW13-PZM111	Lower	120-125	Anthracene	120-12-7	7/1/2004	10	U	1,800	no
SW13-PZM111	Lower	120-125	Anthracene	120-12-7	10/1/2002	10	U	1,800	no
SW13-PZM111	Lower	120-125	Antimony	7440-36-0	7/1/2004	2	U	6	no
SW13-PZM111	Lower	120-125	Antimony, dissolved	7440-36-0	7/1/2004	2	U	6	no
SW13-PZM111	Lower	120-125	Arsenic	7440-38-2	7/1/2004	4	J	10	no
SW13-PZM111	Lower	120-125	Arsenic, dissolved	7440-38-2	7/1/2004	3	J	10	no
SW13-PZM111	Lower	120-125	Barium	7440-39-3	7/1/2004	65		2,000	no
SW13-PZM111	Lower	120-125	Barium, dissolved	7440-39-3	7/1/2004	61		2,000	no
SW13-PZM111	Lower	120-125	Benzene	71-43-2	7/1/2004	1.0	U	5	no
SW13-PZM111	Lower	120-125	Benzene	71-43-2	10/1/2002	5	U	5	no
SW13-PZM111	Lower	120-125	Benzo[a]anthracene	56-55-3	7/1/2004	10	U	0.012	no
SW13-PZM111	Lower	120-125	Benzo[a]anthracene	56-55-3	10/1/2002	10	U	0.012	no
SW13-PZM111	Lower	120-125	Benzo[a]pyrene	50-32-8	7/1/2004	10	U	0.2	no
SW13-PZM111	Lower	120-125	Benzo[a]pyrene	50-32-8	10/1/2002	10	U	0.2	no
SW13-PZM111	Lower	120-125	Benzo[b]fluoranthene	205-99-2	7/1/2004	10	U	0.034	no
SW13-PZM111	Lower	120-125	Benzo[b]fluoranthene	205-99-2	10/1/2002	10	U	0.034	no
SW13-PZM111	Lower	120-125	Benzo[g,h,i]perylene	191-24-2	7/1/2004	10	U		no
SW13-PZM111	Lower	120-125	Benzo[g,h,i]perylene	191-24-2	10/1/2002	10	U		no
SW13-PZM111	Lower	120-125	Benzo[k]fluoranthene	207-08-9	7/1/2004	10	U	0.34	no
SW13-PZM111	Lower	120-125	Benzo[k]fluoranthene	207-08-9	10/1/2002	10	U	0.34	no
SW13-PZM111	Lower	120-125	Beryllium	7440-41-7	7/1/2004	1.0	U	4	no

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SW13-PZM111	Lower	120-125	Beryllium, dissolved	7440-41-7	7/1/2004	1.0	U	4	no
SW13-PZM111	Lower	120-125	bis(2-Chloroethoxy)methane	111-91-1	7/1/2004	10	U	59	no
SW13-PZM111	Lower	120-125	bis(2-Chloroethoxy)methane	111-91-1	10/1/2002	10	U	59	no
SW13-PZM111	Lower	120-125	bis(2-Chloroethyl)ether	111-44-4	7/1/2004	10	U	0.014	no
SW13-PZM111	Lower	120-125	bis(2-Chloroethyl)ether	111-44-4	10/1/2002	10	U	0.014	no
SW13-PZM111	Lower	120-125	bis(2-Ethylhexyl)phthalate	117-81-7	7/1/2004	8	J	6	YES
SW13-PZM111	Lower	120-125	bis(2-Ethylhexyl)phthalate	117-81-7	10/1/2002	10	U	6	no
SW13-PZM111	Lower	120-125	Bromoform	75-25-2	7/1/2004	1.0	U	3.3	no
SW13-PZM111	Lower	120-125	Bromoform	75-25-2	10/1/2002	5	U	3.3	no
SW13-PZM111	Lower	120-125	Cadmium	7440-43-9	7/1/2004	1.0	U	5	no
SW13-PZM111	Lower	120-125	Cadmium, dissolved	7440-43-9	7/1/2004	1.0	U	5	no
SW13-PZM111	Lower	120-125	Calcium	7440-70-2	12/19/2000	39,000			no
SW13-PZM111	Lower	120-125	Carbon disulfide	75-15-0	7/1/2004	1.0	U	810	no
SW13-PZM111	Lower	120-125	Carbon disulfide	75-15-0	10/1/2002	5	U	810	no
SW13-PZM111	Lower	120-125	Carbon tetrachloride	56-23-5	7/1/2004	1.0	U	5	no
SW13-PZM111	Lower	120-125	Carbon tetrachloride	56-23-5	10/1/2002	5	U	5	no
SW13-PZM111	Lower	120-125	Chlorobenzene	108-90-7	7/1/2004	1.0	U	100	no
SW13-PZM111	Lower	120-125	Chlorobenzene	108-90-7	10/1/2002	5	U	100	no
SW13-PZM111	Lower	120-125	Chloroethane	75-00-3	7/1/2004	1.0	U	21,000	no
SW13-PZM111	Lower	120-125	Chloroethane	75-00-3	10/1/2002	10	U	21,000	no
SW13-PZM111	Lower	120-125	Chloroform	67-66-3	7/1/2004	1.0	U	0.22	no
SW13-PZM111	Lower	120-125	Chloroform	67-66-3	10/1/2002	5	U	0.22	no
SW13-PZM111	Lower	120-125	Chromium	7440-47-3	7/1/2004	18	U	100	no
SW13-PZM111	Lower	120-125	Chromium, dissolved	7440-47-3	7/1/2004	11	U	100	no
SW13-PZM111	Lower	120-125	Chrysene	218-01-9	7/1/2004	10	U	3.4	no
SW13-PZM111	Lower	120-125	Chrysene	218-01-9	10/1/2002	10	U	3.4	no
SW13-PZM111	Lower	120-125	cis-1,3-Dichloropropene	10061-01-5	7/1/2004	1.0	U		no
SW13-PZM111	Lower	120-125	cis-1,3-Dichloropropene	10061-01-5	10/1/2002	5	U		no
SW13-PZM111	Lower	120-125	Cobalt	7440-48-4	7/1/2004	0.6	J	6	no
SW13-PZM111	Lower	120-125	Cobalt, dissolved	7440-48-4	7/1/2004	1.0	U	6	no
SW13-PZM111	Lower	120-125	Copper	7440-50-8	7/1/2004	7.7		1,300	no
SW13-PZM111	Lower	120-125	Copper, dissolved	7440-50-8	7/1/2004	2	U	1,300	no
SW13-PZM111	Lower	120-125	Cyanide, available	57-12-5	7/1/2004	2	UL	200	no
SW13-PZM111	Lower	120-125	Cyanide, total	57-12-5	7/1/2004	75		200	no
SW13-PZM111	Lower	120-125	Dibenz[a,h]anthracene	53-70-3	7/1/2004	10	U	0.0034	no
SW13-PZM111	Lower	120-125	Dibenz[a,h]anthracene	53-70-3	10/1/2002	10	U	0.0034	no
SW13-PZM111	Lower	120-125	Diethylphthalate	84-66-2	7/1/2004	10	U	15,000	no
SW13-PZM111	Lower	120-125	Diethylphthalate	84-66-2	10/1/2002	10	U	15,000	no
SW13-PZM111	Lower	120-125	Di-n-butylphthalate	84-74-2	7/1/2004	10	U	900	no
SW13-PZM111	Lower	120-125	Di-n-butylphthalate	84-74-2	10/1/2002	10	U	900	no
SW13-PZM111	Lower	120-125	Di-n-octylphthalate	117-84-0	7/1/2004	10	U	200	no
SW13-PZM111	Lower	120-125	Di-n-octylphthalate	117-84-0	10/1/2002	10	U	200	no
SW13-PZM111	Lower	120-125	Ethylbenzene	100-41-4	7/1/2004	1.0	U	700	no
SW13-PZM111	Lower	120-125	Ethylbenzene	100-41-4	10/1/2002	5	U	700	no
SW13-PZM111	Lower	120-125	Fluoranthene	206-44-0	7/1/2004	10	U	800	no
SW13-PZM111	Lower	120-125	Fluoranthene	206-44-0	10/1/2002	10	U	800	no
SW13-PZM111	Lower	120-125	Fluorene	86-73-7	7/1/2004	10	U	290	no
SW13-PZM111	Lower	120-125	Fluorene	86-73-7	10/1/2002	10	U	290	no
SW13-PZM111	Lower	120-125	Hexachlorobenzene	118-74-1	7/1/2004	10	U	1	no
SW13-PZM111	Lower	120-125	Hexachlorobenzene	118-74-1	10/1/2002	10	U	1	no
SW13-PZM111	Lower	120-125	Hexachlorobutadiene	87-68-3	7/1/2004	10	U	0.14	no
SW13-PZM111	Lower	120-125	Hexachlorobutadiene	87-68-3	10/1/2002	10	U	0.14	no
SW13-PZM111	Lower	120-125	Hexachlorocyclopentadiene	77-47-4	7/1/2004	10	U	50	no
SW13-PZM111	Lower	120-125	Hexachlorocyclopentadiene	77-47-4	10/1/2002	10	U	50	no
SW13-PZM111	Lower	120-125	Hexachloroethane	67-72-1	7/1/2004	10	U	0.33	no
SW13-PZM111	Lower	120-125	Hexachloroethane	67-72-1	10/1/2002	10	U	0.33	no
SW13-PZM111	Lower	120-125	Indeno[1,2,3-cd]pyrene	193-39-5	7/1/2004	10	U	0.034	no
SW13-PZM111	Lower	120-125	Indeno[1,2,3-cd]pyrene	193-39-5	10/1/2002	10	U	0.034	no
SW13-PZM111	Lower	120-125	Iron	7439-89-6	7/1/2004	1,600		14,000	no
SW13-PZM111	Lower	120-125	Iron	7439-89-6	12/19/2000	100,000		14,000	YES
SW13-PZM111	Lower	120-125	Iron	7439-89-6	10/1/2000	100,000		14,000	YES
SW13-PZM111	Lower	120-125	Isophorone	78-59-1	7/1/2004	10	U	78	no
SW13-PZM111	Lower	120-125	Isophorone	78-59-1	10/1/2002	10	U	78	no
SW13-PZM111	Lower	120-125	Lead	7439-92-1	7/1/2004	8.7		15	no
SW13-PZM111	Lower	120-125	Lead, dissolved	7439-92-1	7/1/2004	1.0	U	15	no



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Well	Zone	Screen Interval (feet bgs)	Parameter	CAS #	Sample Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
SW13-PZM111	Lower	120-125	Magnesium	7439-95-4	12/19/2000	16,000			no
SW13-PZM111	Lower	120-125	Manganese	7439-96-5	12/19/2000	1,400		430	YES
SW13-PZM111	Lower	120-125	Mercury	7439-97-6	7/1/2004	0.2	U	2	no
SW13-PZM111	Lower	120-125	Mercury, dissolved	7439-97-6	7/1/2004	0.2	U	2	no
SW13-PZM111	Lower	120-125	Methylene chloride	75-09-2	7/1/2004	19	U	5	no
SW13-PZM111	Lower	120-125	Methylene chloride	75-09-2	10/1/2002	5	U	5	no
SW13-PZM111	Lower	120-125	Naphthalene	91-20-3	7/1/2004	10	U	0.17	no
SW13-PZM111	Lower	120-125	Naphthalene	91-20-3	10/1/2002	10	U	0.17	no
SW13-PZM111	Lower	120-125	Nickel	7440-02-0	7/1/2004	8.1	U	390	no
SW13-PZM111	Lower	120-125	Nickel, dissolved	7440-02-0	7/1/2004	7.8	U	390	no
SW13-PZM111	Lower	120-125	Nitrobenzene	98-95-3	7/1/2004	10	U	0.14	no
SW13-PZM111	Lower	120-125	Nitrobenzene	98-95-3	10/1/2002	10	U	0.14	no
SW13-PZM111	Lower	120-125	Pentachlorophenol	87-86-5	7/1/2004	50	U	1	no
SW13-PZM111	Lower	120-125	Pentachlorophenol	87-86-5	10/1/2002	50	U	1	no
SW13-PZM111	Lower	120-125	Phenanthrene	85-01-8	7/1/2004	10	U		no
SW13-PZM111	Lower	120-125	Phenanthrene	85-01-8	10/1/2002	10	U		no
SW13-PZM111	Lower	120-125	Phenol	108-95-2	7/1/2004	10	U	5,800	no
SW13-PZM111	Lower	120-125	Phenol	108-95-2	10/1/2002	10	U	5,800	no
SW13-PZM111	Lower	120-125	Potassium	7440-09-7	12/19/2000	5,000			no
SW13-PZM111	Lower	120-125	Pyrene	129-00-0	7/1/2004	10	U	120	no
SW13-PZM111	Lower	120-125	Pyrene	129-00-0	10/1/2002	10	U	120	no
SW13-PZM111	Lower	120-125	Selenium	7782-49-2	7/1/2004	5	J	50	no
SW13-PZM111	Lower	120-125	Selenium, dissolved	7782-49-2	7/1/2004	4	J	50	no
SW13-PZM111	Lower	120-125	Silver	7440-22-4	7/1/2004	5	U	94	no
SW13-PZM111	Lower	120-125	Silver, dissolved	7440-22-4	7/1/2004	5	U	94	no
SW13-PZM111	Lower	120-125	Sodium	7440-23-5	12/19/2000	260,000			no
SW13-PZM111	Lower	120-125	Tetrachloroethene	127-18-4	7/1/2004	1.0	U	5	no
SW13-PZM111	Lower	120-125	Tetrachloroethene	127-18-4	10/1/2002	5	U	5	no
SW13-PZM111	Lower	120-125	Thallium	7440-28-0	7/1/2004	1.0	U	2	no
SW13-PZM111	Lower	120-125	Thallium, dissolved	7440-28-0	7/1/2004	1.0	U	2	no
SW13-PZM111	Lower	120-125	Toluene	108-88-3	7/1/2004	8.0	J	1,000	no
SW13-PZM111	Lower	120-125	Toluene	108-88-3	10/1/2002	5	U	1,000	no
SW13-PZM111	Lower	120-125	trans-1,2-Dichloroethene	156-60-5	7/1/2004	1.0	U	100	no
SW13-PZM111	Lower	120-125	trans-1,2-Dichloroethene	156-60-5	10/1/2002	5	U	100	no
SW13-PZM111	Lower	120-125	trans-1,3-Dichloropropene	10061-02-6	7/1/2004	1.0	U		no
SW13-PZM111	Lower	120-125	trans-1,3-Dichloropropene	10061-02-6	10/1/2002	5	U		no
SW13-PZM111	Lower	120-125	Trichloroethene	79-01-6	7/1/2004	1.0	U	5	no
SW13-PZM111	Lower	120-125	Trichloroethene	79-01-6	10/1/2002	5	U	5	no
SW13-PZM111	Lower	120-125	Vanadium	7440-62-2	7/1/2004	17		86	no
SW13-PZM111	Lower	120-125	Vanadium, dissolved	7440-62-2	7/1/2004	11	U	86	no
SW13-PZM111	Lower	120-125	Vinyl chloride	75-01-4	7/1/2004	1.0	U	2	no
SW13-PZM111	Lower	120-125	Vinyl chloride	75-01-4	10/1/2002	10	U	2	no
SW13-PZM111	Lower	120-125	Xylenes	1330-20-7	7/1/2004	1.0	U	10,000	no
SW13-PZM111	Lower	120-125	Xylenes	1330-20-7	10/1/2002	5	U	10,000	no
SW13-PZM111	Lower	120-125	Zinc	7440-66-6	7/1/2004	54		6,000	no
SW13-PZM111	Lower	120-125	Zinc, dissolved	7440-66-6	7/1/2004	10		6,000	no
SW14-PZM004	Shallow	5-15	1,1,1-Trichloroethane	71-55-6	7/1/2004	1.0	U	200	no
SW14-PZM004	Shallow	5-15	1,1,2,2-Tetrachloroethane	79-34-5	7/1/2004	1.0	U	0.076	no
SW14-PZM004	Shallow	5-15	1,1,2-Trichloroethane	79-00-5	7/1/2004	1.0	U	5	no
SW14-PZM004	Shallow	5-15	1,1-Dichloroethane	75-34-3	7/1/2004	1.0	U	2.7	no
SW14-PZM004	Shallow	5-15	1,1-Dichloroethane	75-35-4	7/1/2004	1.0	U	7	no
SW14-PZM004	Shallow	5-15	1,2,4-Trichlorobenzene	120-82-1	7/1/2004	10	U	70	no
SW14-PZM004	Shallow	5-15	1,2-Dichlorobenzene	95-50-1	7/1/2004	10	U	600	no
SW14-PZM004	Shallow	5-15	1,2-Dichloroethane	107-06-2	7/1/2004	1.0	U	5	no
SW14-PZM004	Shallow	5-15	1,2-Dichloropropane	78-87-5	7/1/2004	1.0	U	5	no
SW14-PZM004	Shallow	5-15	1,3-Dichlorobenzene	541-73-1	7/1/2004	10	U		no
SW14-PZM004	Shallow	5-15	1,4-Dichlorobenzene	106-46-7	7/1/2004	10	U	75	no
SW14-PZM004	Shallow	5-15	2,4,5-Trichlorophenol	95-95-4	7/1/2004	10	U	1,200	no
SW14-PZM004	Shallow	5-15	2,4,6-Trichlorophenol	88-06-2	7/1/2004	10	U	4	no
SW14-PZM004	Shallow	5-15	2,4-Dichlorophenol	120-83-2	7/1/2004	10	U	46	no
SW14-PZM004	Shallow	5-15	2,4-Dimethylphenol	105-67-9	7/1/2004	10	U	360	no
SW14-PZM004	Shallow	5-15	2,4-Dinitrophenol	51-28-5	7/1/2004	50	U	39	no
SW14-PZM004	Shallow	5-15	2,4-Dinitrotoluene	121-14-2	7/1/2004	10	U	0.24	no
SW14-PZM004	Shallow	5-15	2,6-Dinitrotoluene	606-20-2	7/1/2004	10	U	0.048	no
SW14-PZM004	Shallow	5-15	2-Butanone (MEK)	78-93-3	7/1/2004	5	U	5,600	no

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SW14-PZM004	Shallow	5-15	2-Chloronaphthalene	91-58-7	7/1/2004	10	U	750	no
SW14-PZM004	Shallow	5-15	2-Chlorophenol	95-57-8	7/1/2004	10	U	91	no
SW14-PZM004	Shallow	5-15	2-Hexanone	591-78-6	7/1/2004	5	U	38	no
SW14-PZM004	Shallow	5-15	2-Methylnaphthalene	91-57-6	7/1/2004	10	U	36	no
SW14-PZM004	Shallow	5-15	2-Methylphenol	95-48-7	7/1/2004	10	U	930	no
SW14-PZM004	Shallow	5-15	3,3'-Dichlorobenzidine	91-94-1	7/1/2004	20	U	0.12	no
SW14-PZM004	Shallow	5-15	4-Methyl-2-pentanone (MIBK)	108-10-1	7/1/2004	5	U	1,200	no
SW14-PZM004	Shallow	5-15	Acenaphthene	83-32-9	7/1/2004	10	U	530	no
SW14-PZM004	Shallow	5-15	Acenaphthylene	208-96-8	7/1/2004	10	U	530	no
SW14-PZM004	Shallow	5-15	Acetone	67-64-1	7/1/2004	5	U	14,000	no
SW14-PZM004	Shallow	5-15	Anthracene	120-12-7	7/1/2004	10	U	1,800	no
SW14-PZM004	Shallow	5-15	Antimony	7440-36-0	7/1/2004	2.9	U	6	no
SW14-PZM004	Shallow	5-15	Antimony, dissolved	7440-36-0	7/1/2004	2	U	6	no
SW14-PZM004	Shallow	5-15	Arsenic	7440-38-2	7/1/2004	5	U	10	no
SW14-PZM004	Shallow	5-15	Arsenic, dissolved	7440-38-2	7/1/2004	5	U	10	no
SW14-PZM004	Shallow	5-15	Barium	7440-39-3	7/1/2004	51		2,000	no
SW14-PZM004	Shallow	5-15	Barium, dissolved	7440-39-3	7/1/2004	51		2,000	no
SW14-PZM004	Shallow	5-15	Benzene	71-43-2	7/1/2004	1.0	U	5	no
SW14-PZM004	Shallow	5-15	Benzo[a]anthracene	56-55-3	7/1/2004	10	U	0.012	no
SW14-PZM004	Shallow	5-15	Benzo[a]pyrene	50-32-8	7/1/2004	10	U	0.2	no
SW14-PZM004	Shallow	5-15	Benzo[b]fluoranthene	205-99-2	7/1/2004	10	U	0.034	no
SW14-PZM004	Shallow	5-15	Benzo[g,h,i]perylene	191-24-2	7/1/2004	10	U		no
SW14-PZM004	Shallow	5-15	Benzo[k]fluoranthene	207-08-9	7/1/2004	10	U	0.34	no
SW14-PZM004	Shallow	5-15	Beryllium	7440-41-7	7/1/2004	0.7	U	4	no
SW14-PZM004	Shallow	5-15	Beryllium, dissolved	7440-41-7	7/1/2004	0.9	J	4	no
SW14-PZM004	Shallow	5-15	bis(2-Chloroethoxy)methane	111-91-1	7/1/2004	10	U	59	no
SW14-PZM004	Shallow	5-15	bis(2-Chloroethyl)ether	111-44-4	7/1/2004	10	U	0.014	no
SW14-PZM004	Shallow	5-15	bis(2-Ethylhexyl)phthalate	117-81-7	7/1/2004	10	U	6	no
SW14-PZM004	Shallow	5-15	Bromoform	75-25-2	7/1/2004	1.0	U	3.3	no
SW14-PZM004	Shallow	5-15	Cadmium	7440-43-9	7/1/2004	1.0	U	5	no
SW14-PZM004	Shallow	5-15	Cadmium, dissolved	7440-43-9	7/1/2004	1.0	U	5	no
SW14-PZM004	Shallow	5-15	Calcium	7440-70-2	12/28/2000	76,000			no
SW14-PZM004	Shallow	5-15	Carbon disulfide	75-15-0	7/1/2004	1.0	U	810	no
SW14-PZM004	Shallow	5-15	Carbon tetrachloride	56-23-5	7/1/2004	1.0	U	5	no
SW14-PZM004	Shallow	5-15	Chlorobenzene	108-90-7	7/1/2004	1.0	U	100	no
SW14-PZM004	Shallow	5-15	Chloroethane	75-00-3	7/1/2004	1.0	U	21,000	no
SW14-PZM004	Shallow	5-15	Chloroform	67-66-3	7/1/2004	1.0	U	0.22	no
SW14-PZM004	Shallow	5-15	Chromium	7440-47-3	7/1/2004	6.3	U	100	no
SW14-PZM004	Shallow	5-15	Chromium, dissolved	7440-47-3	7/1/2004	7.3	U	100	no
SW14-PZM004	Shallow	5-15	Chrysene	218-01-9	7/1/2004	10	U	3.4	no
SW14-PZM004	Shallow	5-15	cis-1,3-Dichloropropene	10061-01-5	7/1/2004	1.0	U		no
SW14-PZM004	Shallow	5-15	Cobalt	7440-48-4	7/1/2004	30		6	YES
SW14-PZM004	Shallow	5-15	Cobalt, dissolved	7440-48-4	7/1/2004	30		6	YES
SW14-PZM004	Shallow	5-15	Copper	7440-50-8	7/1/2004	2.6		1,300	no
SW14-PZM004	Shallow	5-15	Copper, dissolved	7440-50-8	7/1/2004	3.1		1,300	no
SW14-PZM004	Shallow	5-15	Cyanide, available	57-12-5	7/1/2004	2	U	200	no
SW14-PZM004	Shallow	5-15	Cyanide, total	57-12-5	7/1/2004	30		200	no
SW14-PZM004	Shallow	5-15	Dibenz[a,h]anthracene	53-70-3	7/1/2004	10	U	0.0034	no
SW14-PZM004	Shallow	5-15	Diethylphthalate	84-66-2	7/1/2004	10	U	15,000	no
SW14-PZM004	Shallow	5-15	Di-n-butylphthalate	84-74-2	7/1/2004	10	U	900	no
SW14-PZM004	Shallow	5-15	Di-n-octylphthalate	117-84-0	7/1/2004	10	U	200	no
SW14-PZM004	Shallow	5-15	Ethylbenzene	100-41-4	7/1/2004	1.0	U	700	no
SW14-PZM004	Shallow	5-15	Fluoranthene	206-44-0	7/1/2004	10	U	800	no
SW14-PZM004	Shallow	5-15	Fluorene	86-73-7	7/1/2004	10	U	290	no
SW14-PZM004	Shallow	5-15	Hexachlorobenzene	118-74-1	7/1/2004	10	U	1	no
SW14-PZM004	Shallow	5-15	Hexachlorobutadiene	87-68-3	7/1/2004	10	U	0.14	no
SW14-PZM004	Shallow	5-15	Hexachlorocyclopentadiene	77-47-4	7/1/2004	10	U	50	no
SW14-PZM004	Shallow	5-15	Hexachloroethane	67-72-1	7/1/2004	10	U	0.33	no
SW14-PZM004	Shallow	5-15	Indeno[1,2,3-cd]pyrene	193-39-5	7/1/2004	10	U	0.034	no
SW14-PZM004	Shallow	5-15	Iron	7439-89-6	7/1/2004	4,000		14,000	no
SW14-PZM004	Shallow	5-15	Iron	7439-89-6	12/28/2000	6,500		14,000	no
SW14-PZM004	Shallow	5-15	Iron	7439-89-6	10/1/2000	6,500		14,000	no
SW14-PZM004	Shallow	5-15	Isophorone	78-59-1	7/1/2004	10	U	78	no
SW14-PZM004	Shallow	5-15	Lead	7439-92-1	7/1/2004	1.0	U	15	no
SW14-PZM004	Shallow	5-15	Lead, dissolved	7439-92-1	7/1/2004	1.0	U	15	no

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SW14-PZM004	Shallow	5-15	Magnesium	7439-95-4	12/28/2000	11,000			no
SW14-PZM004	Shallow	5-15	Manganese	7439-96-5	12/28/2000	520		430	YES
SW14-PZM004	Shallow	5-15	Mercury	7439-97-6	7/1/2004	0.2	U	2	no
SW14-PZM004	Shallow	5-15	Mercury, dissolved	7439-97-6	7/1/2004	0.2	U	2	no
SW14-PZM004	Shallow	5-15	Methylene chloride	75-09-2	7/1/2004	3.6	U	5	no
SW14-PZM004	Shallow	5-15	Naphthalene	91-20-3	7/1/2004	10	U	0.17	no
SW14-PZM004	Shallow	5-15	Nickel	7440-02-0	7/1/2004	40		390	no
SW14-PZM004	Shallow	5-15	Nickel, dissolved	7440-02-0	7/1/2004	40		390	no
SW14-PZM004	Shallow	5-15	Nitrobenzene	98-95-3	7/1/2004	10	U	0.14	no
SW14-PZM004	Shallow	5-15	Pentachlorophenol	87-86-5	7/1/2004	50	U	1	no
SW14-PZM004	Shallow	5-15	Phenanthrene	85-01-8	7/1/2004	10	U		no
SW14-PZM004	Shallow	5-15	Phenol	108-95-2	7/1/2004	10	U	5,800	no
SW14-PZM004	Shallow	5-15	Potassium	7440-09-7	12/28/2000	42,000			no
SW14-PZM004	Shallow	5-15	Pyrene	129-00-0	7/1/2004	10	U	120	no
SW14-PZM004	Shallow	5-15	Selenium	7782-49-2	7/1/2004	5	U	50	no
SW14-PZM004	Shallow	5-15	Selenium, dissolved	7782-49-2	7/1/2004	5	U	50	no
SW14-PZM004	Shallow	5-15	Silver	7440-22-4	7/1/2004	5	U	94	no
SW14-PZM004	Shallow	5-15	Silver, dissolved	7440-22-4	7/1/2004	5	U	94	no
SW14-PZM004	Shallow	5-15	Sodium	7440-23-5	12/28/2000	480,000			no
SW14-PZM004	Shallow	5-15	Tetrachloroethene	127-18-4	7/1/2004	1.0	U	5	no
SW14-PZM004	Shallow	5-15	Thallium	7440-28-0	7/1/2004	1.0	U	2	no
SW14-PZM004	Shallow	5-15	Thallium, dissolved	7440-28-0	7/1/2004	1.0	U	2	no
SW14-PZM004	Shallow	5-15	Toluene	108-88-3	7/1/2004	1.0	U	1,000	no
SW14-PZM004	Shallow	5-15	trans-1,2-Dichloroethene	156-60-5	7/1/2004	1.0	U	100	no
SW14-PZM004	Shallow	5-15	trans-1,3-Dichloropropene	10061-02-6	7/1/2004	1.0	U		no
SW14-PZM004	Shallow	5-15	Trichloroethene	79-01-6	7/1/2004	1.0	U	5	no
SW14-PZM004	Shallow	5-15	Vanadium	7440-62-2	7/1/2004	5	U	86	no
SW14-PZM004	Shallow	5-15	Vanadium, dissolved	7440-62-2	7/1/2004	5	U	86	no
SW14-PZM004	Shallow	5-15	Vinyl chloride	75-01-4	7/1/2004	1.0	U	2	no
SW14-PZM004	Shallow	5-15	Xylenes	1330-20-7	7/1/2004	2	U	10,000	no
SW14-PZM004	Shallow	5-15	Zinc	7440-66-6	7/1/2004	130		6,000	no
SW14-PZM004	Shallow	5-15	Zinc, dissolved	7440-66-6	7/1/2004	140		6,000	no
SW14-PZM099	Lower	105-110	1,1,1-Trichloroethane	71-55-6	7/1/2004	1.0	U	200	no
SW14-PZM099	Lower	105-110	1,1,1-Trichloroethane	71-55-6	10/1/2002	5	U	200	no
SW14-PZM099	Lower	105-110	1,1,2,2-Tetrachloroethane	79-34-5	7/1/2004	1.0	U	0.076	no
SW14-PZM099	Lower	105-110	1,1,2,2-Tetrachloroethane	79-34-5	10/1/2002	5	U	0.076	no
SW14-PZM099	Lower	105-110	1,1,2-Trichloroethane	79-00-5	7/1/2004	1.0	U	5	no
SW14-PZM099	Lower	105-110	1,1,2-Trichloroethane	79-00-5	10/1/2002	5	U	5	no
SW14-PZM099	Lower	105-110	1,1-Dichloroethane	75-34-3	7/1/2004	1.0	U	2.7	no
SW14-PZM099	Lower	105-110	1,1-Dichloroethane	75-34-3	10/1/2002	5	U	2.7	no
SW14-PZM099	Lower	105-110	1,1-Dichloroethene	75-35-4	7/1/2004	1.0	U	7	no
SW14-PZM099	Lower	105-110	1,1-Dichloroethene	75-35-4	10/1/2002	5	U	7	no
SW14-PZM099	Lower	105-110	1,2,4-Trichlorobenzene	120-82-1	7/1/2004	10	U	70	no
SW14-PZM099	Lower	105-110	1,2,4-Trichlorobenzene	120-82-1	10/1/2002	10	U	70	no
SW14-PZM099	Lower	105-110	1,2-Dichlorobenzene	95-50-1	7/1/2004	10	U	600	no
SW14-PZM099	Lower	105-110	1,2-Dichloroethane	107-06-2	7/1/2004	1.0	U	5	no
SW14-PZM099	Lower	105-110	1,2-Dichloroethane	107-06-2	10/1/2002	5	U	5	no
SW14-PZM099	Lower	105-110	1,2-Dichloropropane	78-87-5	7/1/2004	1.0	U	5	no
SW14-PZM099	Lower	105-110	1,2-Dichloropropane	78-87-5	10/1/2002	5	U	5	no
SW14-PZM099	Lower	105-110	1,3-Dichlorobenzene	541-73-1	7/1/2004	10	U		no
SW14-PZM099	Lower	105-110	1,3-Dichlorobenzene	541-73-1	10/1/2002	10	U		no
SW14-PZM099	Lower	105-110	1,4-Dichlorobenzene	106-46-7	7/1/2004	10	U	75	no
SW14-PZM099	Lower	105-110	2,4,5-Trichlorophenol	95-95-4	7/1/2004	10	U	1,200	no
SW14-PZM099	Lower	105-110	2,4,5-Trichlorophenol	95-95-4	10/1/2002	10	U	1,200	no
SW14-PZM099	Lower	105-110	2,4,6-Trichlorophenol	88-06-2	7/1/2004	10	U	4	no
SW14-PZM099	Lower	105-110	2,4,6-Trichlorophenol	88-06-2	10/1/2002	10	U	4	no
SW14-PZM099	Lower	105-110	2,4-Dichlorophenol	120-83-2	7/1/2004	10	U	46	no
SW14-PZM099	Lower	105-110	2,4-Dichlorophenol	120-83-2	10/1/2002	10	U	46	no
SW14-PZM099	Lower	105-110	2,4-Dimethylphenol	105-67-9	7/1/2004	10	U	360	no
SW14-PZM099	Lower	105-110	2,4-Dimethylphenol	105-67-9	10/1/2002	10	U	360	no
SW14-PZM099	Lower	105-110	2,4-Dinitrophenol	51-28-5	7/1/2004	50	U	39	no
SW14-PZM099	Lower	105-110	2,4-Dinitrophenol	51-28-5	10/1/2002	50	U	39	no
SW14-PZM099	Lower	105-110	2,4-Dinitrotoluene	121-14-2	7/1/2004	10	U	0.24	no
SW14-PZM099	Lower	105-110	2,4-Dinitrotoluene	121-14-2	10/1/2002	10	U	0.24	no
SW14-PZM099	Lower	105-110	2,6-Dinitrotoluene	606-20-2	7/1/2004	10	U	0.048	no

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Well	Zone	Screen Interval (feet bgs)	Parameter	CAS #	Sample Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
SW14-PZM099	Lower	105-110	2,6-Dinitrotoluene	606-20-2	10/1/2002	10	U	0.048	no
SW14-PZM099	Lower	105-110	2-Butanone (MEK)	78-93-3	7/1/2004	5	U	5,600	no
SW14-PZM099	Lower	105-110	2-Butanone (MEK)	78-93-3	10/1/2002	100	U	5,600	no
SW14-PZM099	Lower	105-110	2-Chloronaphthalene	91-58-7	7/1/2004	10	U	750	no
SW14-PZM099	Lower	105-110	2-Chloronaphthalene	91-58-7	10/1/2002	10	U	750	no
SW14-PZM099	Lower	105-110	2-Chlorophenol	95-57-8	7/1/2004	10	U	91	no
SW14-PZM099	Lower	105-110	2-Chlorophenol	95-57-8	10/1/2002	10	U	91	no
SW14-PZM099	Lower	105-110	2-Hexanone	591-78-6	7/1/2004	5	U	38	no
SW14-PZM099	Lower	105-110	2-Hexanone	591-78-6	10/1/2002	50	U	38	no
SW14-PZM099	Lower	105-110	2-Methylnaphthalene	91-57-6	7/1/2004	10	U	36	no
SW14-PZM099	Lower	105-110	2-Methylnaphthalene	91-57-6	10/1/2002	10	U	36	no
SW14-PZM099	Lower	105-110	2-Methylphenol	95-48-7	7/1/2004	10	U	930	no
SW14-PZM099	Lower	105-110	2-Methylphenol	95-48-7	10/1/2002	10	U	930	no
SW14-PZM099	Lower	105-110	3,3'-Dichlorobenzidine	91-94-1	7/1/2004	20	U	0.12	no
SW14-PZM099	Lower	105-110	3,3'-Dichlorobenzidine	91-94-1	10/1/2002	20	U	0.12	no
SW14-PZM099	Lower	105-110	4-Methyl-2-pentanone (MIBK)	108-10-1	7/1/2004	5	U	1,200	no
SW14-PZM099	Lower	105-110	4-Methyl-2-pentanone (MIBK)	108-10-1	10/1/2002	50	U	1,200	no
SW14-PZM099	Lower	105-110	Acenaphthene	83-32-9	7/1/2004	10	U	530	no
SW14-PZM099	Lower	105-110	Acenaphthene	83-32-9	10/1/2002	10	U	530	no
SW14-PZM099	Lower	105-110	Acenaphthylene	208-96-8	7/1/2004	10	U	530	no
SW14-PZM099	Lower	105-110	Acenaphthylene	208-96-8	10/1/2002	10	U	530	no
SW14-PZM099	Lower	105-110	Acetone	67-64-1	7/1/2004	7.7	U	14,000	no
SW14-PZM099	Lower	105-110	Acetone	67-64-1	10/1/2002	100	U	14,000	no
SW14-PZM099	Lower	105-110	Anthracene	120-12-7	7/1/2004	10	U	1,800	no
SW14-PZM099	Lower	105-110	Anthracene	120-12-7	10/1/2002	10	U	1,800	no
SW14-PZM099	Lower	105-110	Antimony	7440-36-0	7/1/2004	2	U	6	no
SW14-PZM099	Lower	105-110	Antimony, dissolved	7440-36-0	7/1/2004	2.9	U	6	no
SW14-PZM099	Lower	105-110	Arsenic	7440-38-2	7/1/2004	5	U	10	no
SW14-PZM099	Lower	105-110	Arsenic, dissolved	7440-38-2	7/1/2004	5	U	10	no
SW14-PZM099	Lower	105-110	Barium	7440-39-3	7/1/2004	150	J	2,000	no
SW14-PZM099	Lower	105-110	Barium, dissolved	7440-39-3	7/1/2004	140	J	2,000	no
SW14-PZM099	Lower	105-110	Benzene	71-43-2	7/1/2004	1.0	U	5	no
SW14-PZM099	Lower	105-110	Benzene	71-43-2	10/1/2002	5	U	5	no
SW14-PZM099	Lower	105-110	Benzo[a]anthracene	56-55-3	7/1/2004	10	U	0.012	no
SW14-PZM099	Lower	105-110	Benzo[a]anthracene	56-55-3	10/1/2002	10	U	0.012	no
SW14-PZM099	Lower	105-110	Benzo[a]pyrene	50-32-8	7/1/2004	10	U	0.2	no
SW14-PZM099	Lower	105-110	Benzo[a]pyrene	50-32-8	10/1/2002	10	U	0.2	no
SW14-PZM099	Lower	105-110	Benzo[b]fluoranthene	205-99-2	7/1/2004	10	U	0.034	no
SW14-PZM099	Lower	105-110	Benzo[b]fluoranthene	205-99-2	10/1/2002	10	U	0.034	no
SW14-PZM099	Lower	105-110	Benzo[g,h,i]perylene	191-24-2	7/1/2004	10	U		no
SW14-PZM099	Lower	105-110	Benzo[g,h,i]perylene	191-24-2	10/1/2002	10	U		no
SW14-PZM099	Lower	105-110	Benzo[k]fluoranthene	207-08-9	7/1/2004	10	U	0.34	no
SW14-PZM099	Lower	105-110	Benzo[k]fluoranthene	207-08-9	10/1/2002	10	U	0.34	no
SW14-PZM099	Lower	105-110	Beryllium	7440-41-7	7/1/2004	1.0	U	4	no
SW14-PZM099	Lower	105-110	Beryllium, dissolved	7440-41-7	7/1/2004	1.0	U	4	no
SW14-PZM099	Lower	105-110	bis(2-Chloroethoxy)methane	111-91-1	7/1/2004	10	U	59	no
SW14-PZM099	Lower	105-110	bis(2-Chloroethoxy)methane	111-91-1	10/1/2002	10	U	59	no
SW14-PZM099	Lower	105-110	bis(2-Chloroethyl)ether	111-44-4	7/1/2004	10	U	0.014	no
SW14-PZM099	Lower	105-110	bis(2-Chloroethyl)ether	111-44-4	10/1/2002	10	U	0.014	no
SW14-PZM099	Lower	105-110	bis(2-Ethylhexyl)phthalate	117-81-7	7/1/2004	29	U	6	no
SW14-PZM099	Lower	105-110	bis(2-Ethylhexyl)phthalate	117-81-7	10/1/2002	10	U	6	no
SW14-PZM099	Lower	105-110	Bromoform	75-25-2	7/1/2004	1.0	U	3.3	no
SW14-PZM099	Lower	105-110	Bromoform	75-25-2	10/1/2002	5	U	3.3	no
SW14-PZM099	Lower	105-110	Cadmium	7440-43-9	7/1/2004	1.0	U	5	no
SW14-PZM099	Lower	105-110	Cadmium, dissolved	7440-43-9	7/1/2004	1.0	U	5	no
SW14-PZM099	Lower	105-110	Calcium	7440-70-2	12/28/2000	55,000			no
SW14-PZM099	Lower	105-110	Carbon disulfide	75-15-0	7/1/2004	1.0	U	810	no
SW14-PZM099	Lower	105-110	Carbon disulfide	75-15-0	10/1/2002	5	U	810	no
SW14-PZM099	Lower	105-110	Carbon tetrachloride	56-23-5	7/1/2004	1.0	U	5	no
SW14-PZM099	Lower	105-110	Carbon tetrachloride	56-23-5	10/1/2002	5	U	5	no
SW14-PZM099	Lower	105-110	Chlorobenzene	108-90-7	7/1/2004	1.0	U	100	no
SW14-PZM099	Lower	105-110	Chlorobenzene	108-90-7	10/1/2002	5	U	100	no
SW14-PZM099	Lower	105-110	Chloroethane	75-00-3	7/1/2004	1.0	U	21,000	no
SW14-PZM099	Lower	105-110	Chloroethane	75-00-3	10/1/2002	10	U	21,000	no
SW14-PZM099	Lower	105-110	Chloroform	67-66-3	7/1/2004	1.0	U	0.22	no

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SW14-PZM099	Lower	105-110	Chloroform	67-66-3	10/1/2002	5	U	0.22	no
SW14-PZM099	Lower	105-110	Chromium	7440-47-3	7/1/2004	7.9	U	100	no
SW14-PZM099	Lower	105-110	Chromium, dissolved	7440-47-3	7/1/2004	5.6	U	100	no
SW14-PZM099	Lower	105-110	Chrysene	218-01-9	7/1/2004	10	U	3.4	no
SW14-PZM099	Lower	105-110	Chrysene	218-01-9	10/1/2002	10	U	3.4	no
SW14-PZM099	Lower	105-110	cis-1,3-Dichloropropene	10061-01-5	7/1/2004	1.0	U		no
SW14-PZM099	Lower	105-110	cis-1,3-Dichloropropene	10061-01-5	10/1/2002	5	U		no
SW14-PZM099	Lower	105-110	Cobalt	7440-48-4	7/1/2004	0.6	J	6	no
SW14-PZM099	Lower	105-110	Cobalt, dissolved	7440-48-4	7/1/2004	1.0	U	6	no
SW14-PZM099	Lower	105-110	Copper	7440-50-8	7/1/2004	2	U	1,300	no
SW14-PZM099	Lower	105-110	Copper, dissolved	7440-50-8	7/1/2004	2		1,300	no
SW14-PZM099	Lower	105-110	Cyanide, available	57-12-5	7/1/2004	2	U	200	no
SW14-PZM099	Lower	105-110	Cyanide, total	57-12-5	7/1/2004	1.0	U	200	no
SW14-PZM099	Lower	105-110	Dibenz[a,h]anthracene	53-70-3	7/1/2004	10	U	0.0034	no
SW14-PZM099	Lower	105-110	Dibenz[a,h]anthracene	53-70-3	10/1/2002	10	U	0.0034	no
SW14-PZM099	Lower	105-110	Diethylphthalate	84-66-2	7/1/2004	10	U	15,000	no
SW14-PZM099	Lower	105-110	Diethylphthalate	84-66-2	10/1/2002	10	U	15,000	no
SW14-PZM099	Lower	105-110	Di-n-butylphthalate	84-74-2	7/1/2004	10	U	900	no
SW14-PZM099	Lower	105-110	Di-n-butylphthalate	84-74-2	10/1/2002	10	U	900	no
SW14-PZM099	Lower	105-110	Di-n-octylphthalate	117-84-0	7/1/2004	10	U	200	no
SW14-PZM099	Lower	105-110	Di-n-octylphthalate	117-84-0	10/1/2002	10	U	200	no
SW14-PZM099	Lower	105-110	Ethylbenzene	100-41-4	7/1/2004	1.0	U	700	no
SW14-PZM099	Lower	105-110	Ethylbenzene	100-41-4	10/1/2002	5	U	700	no
SW14-PZM099	Lower	105-110	Fluoranthene	206-44-0	7/1/2004	10	U	800	no
SW14-PZM099	Lower	105-110	Fluoranthene	206-44-0	10/1/2002	10	U	800	no
SW14-PZM099	Lower	105-110	Fluorene	86-73-7	7/1/2004	10	U	290	no
SW14-PZM099	Lower	105-110	Fluorene	86-73-7	10/1/2002	10	U	290	no
SW14-PZM099	Lower	105-110	Hexachlorobenzene	118-74-1	7/1/2004	10	U	1	no
SW14-PZM099	Lower	105-110	Hexachlorobenzene	118-74-1	10/1/2002	10	U	1	no
SW14-PZM099	Lower	105-110	Hexachlorobutadiene	87-68-3	7/1/2004	10	U	0.14	no
SW14-PZM099	Lower	105-110	Hexachlorobutadiene	87-68-3	10/1/2002	10	U	0.14	no
SW14-PZM099	Lower	105-110	Hexachlorocyclopentadiene	77-47-4	7/1/2004	10	U	50	no
SW14-PZM099	Lower	105-110	Hexachlorocyclopentadiene	77-47-4	10/1/2002	10	U	50	no
SW14-PZM099	Lower	105-110	Hexachloroethane	67-72-1	7/1/2004	10	U	0.33	no
SW14-PZM099	Lower	105-110	Hexachloroethane	67-72-1	10/1/2002	10	U	0.33	no
SW14-PZM099	Lower	105-110	Indeno[1,2,3-cd]pyrene	193-39-5	7/1/2004	10	U	0.034	no
SW14-PZM099	Lower	105-110	Indeno[1,2,3-cd]pyrene	193-39-5	10/1/2002	10	U	0.034	no
SW14-PZM099	Lower	105-110	Iron	7439-89-6	7/1/2004	26,000		14,000	YES
SW14-PZM099	Lower	105-110	Iron	7439-89-6	12/28/2000	27		14,000	no
SW14-PZM099	Lower	105-110	Iron	7439-89-6	10/1/2000	27,000		14,000	YES
SW14-PZM099	Lower	105-110	Isophorone	78-59-1	7/1/2004	10	U	78	no
SW14-PZM099	Lower	105-110	Isophorone	78-59-1	10/1/2002	10	U	78	no
SW14-PZM099	Lower	105-110	Lead	7439-92-1	7/1/2004	1.0	J	15	no
SW14-PZM099	Lower	105-110	Lead, dissolved	7439-92-1	7/1/2004	1.0	U	15	no
SW14-PZM099	Lower	105-110	Magnesium	7439-95-4	12/28/2000	21,000			no
SW14-PZM099	Lower	105-110	Manganese	7439-96-5	12/28/2000	1,300		430	YES
SW14-PZM099	Lower	105-110	Mercury	7439-97-6	7/1/2004	0.2	U	2	no
SW14-PZM099	Lower	105-110	Mercury, dissolved	7439-97-6	7/1/2004	0.2	U	2	no
SW14-PZM099	Lower	105-110	Methylene chloride	75-09-2	7/1/2004	5.6	U	5	no
SW14-PZM099	Lower	105-110	Methylene chloride	75-09-2	10/1/2002	5	U	5	no
SW14-PZM099	Lower	105-110	Naphthalene	91-20-3	7/1/2004	10	U	0.17	no
SW14-PZM099	Lower	105-110	Naphthalene	91-20-3	10/1/2002	10	U	0.17	no
SW14-PZM099	Lower	105-110	Nickel	7440-02-0	7/1/2004	2.8	U	390	no
SW14-PZM099	Lower	105-110	Nickel, dissolved	7440-02-0	7/1/2004	2	U	390	no
SW14-PZM099	Lower	105-110	Nitrobenzene	98-95-3	7/1/2004	10	U	0.14	no
SW14-PZM099	Lower	105-110	Nitrobenzene	98-95-3	10/1/2002	10	U	0.14	no
SW14-PZM099	Lower	105-110	Pentachlorophenol	87-86-5	7/1/2004	50	U	1	no
SW14-PZM099	Lower	105-110	Pentachlorophenol	87-86-5	10/1/2002	50	U	1	no
SW14-PZM099	Lower	105-110	Phenanthrene	85-01-8	7/1/2004	10	U		no
SW14-PZM099	Lower	105-110	Phenanthrene	85-01-8	10/1/2002	10	U		no
SW14-PZM099	Lower	105-110	Phenol	108-95-2	7/1/2004	10	U	5,800	no
SW14-PZM099	Lower	105-110	Phenol	108-95-2	10/1/2002	10	U	5,800	no
SW14-PZM099	Lower	105-110	Potassium	7440-09-7	12/28/2000	6,600			no
SW14-PZM099	Lower	105-110	Pyrene	129-00-0	7/1/2004	10	U	120	no
SW14-PZM099	Lower	105-110	Pyrene	129-00-0	10/1/2002	10	U	120	no

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SW14-PZM099	Lower	105-110	Selenium	7782-49-2	7/1/2004	5	U	50	no
SW14-PZM099	Lower	105-110	Selenium, dissolved	7782-49-2	7/1/2004	5	U	50	no
SW14-PZM099	Lower	105-110	Silver	7440-22-4	7/1/2004	5	U	94	no
SW14-PZM099	Lower	105-110	Silver, dissolved	7440-22-4	7/1/2004	5	U	94	no
SW14-PZM099	Lower	105-110	Sodium	7440-23-5	12/28/2000	64,000			no
SW14-PZM099	Lower	105-110	Tetrachloroethene	127-18-4	7/1/2004	1.0	U	5	no
SW14-PZM099	Lower	105-110	Tetrachloroethene	127-18-4	10/1/2002	5	U	5	no
SW14-PZM099	Lower	105-110	Thallium	7440-28-0	7/1/2004	0.7	J	2	no
SW14-PZM099	Lower	105-110	Thallium, dissolved	7440-28-0	7/1/2004	1.0	U	2	no
SW14-PZM099	Lower	105-110	Toluene	108-88-3	7/1/2004	1.0	U	1,000	no
SW14-PZM099	Lower	105-110	Toluene	108-88-3	10/1/2002	5	U	1,000	no
SW14-PZM099	Lower	105-110	trans-1,2-Dichloroethene	156-60-5	7/1/2004	1.0	U	100	no
SW14-PZM099	Lower	105-110	trans-1,2-Dichloroethene	156-60-5	10/1/2002	5	U	100	no
SW14-PZM099	Lower	105-110	trans-1,3-Dichloropropene	10061-02-6	7/1/2004	1.0	U		no
SW14-PZM099	Lower	105-110	trans-1,3-Dichloropropene	10061-02-6	10/1/2002	5	U		no
SW14-PZM099	Lower	105-110	Trichloroethene	79-01-6	7/1/2004	1.0	U	5	no
SW14-PZM099	Lower	105-110	Trichloroethene	79-01-6	10/1/2002	5	U	5	no
SW14-PZM099	Lower	105-110	Vanadium	7440-62-2	7/1/2004	5	U	86	no
SW14-PZM099	Lower	105-110	Vanadium, dissolved	7440-62-2	7/1/2004	5	U	86	no
SW14-PZM099	Lower	105-110	Vinyl chloride	75-01-4	7/1/2004	1.0	U	2	no
SW14-PZM099	Lower	105-110	Vinyl chloride	75-01-4	10/1/2002	10	U	2	no
SW14-PZM099	Lower	105-110	Xylenes	1330-20-7	7/1/2004	2	U	10,000	no
SW14-PZM099	Lower	105-110	Xylenes	1330-20-7	10/1/2002	5	U	10,000	no
SW14-PZM099	Lower	105-110	Zinc	7440-66-6	7/1/2004	10	U	6,000	no
SW14-PZM099	Lower	105-110	Zinc, dissolved	7440-66-6	7/1/2004	5	J	6,000	no

Yellow highlight indicates PAL exceedance

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## **APPENDIX C**

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Parcel B18 Area B Groundwater Investigation  
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Well	Zone	Screen Interval (feet bgs)	Parameter	Sample Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
SW-029-MWS	Shallow	4.1-11.1	1,1,1-Trichloroethane	2/11/2016	1	U	200	no
SW-029-MWS	Shallow	4.1-11.1	1,1,2,2-Tetrachloroethane	2/11/2016	1	U	0.076	no
SW-029-MWS	Shallow	4.1-11.1	1,1,2-Trichloro-1,2,2-Trifluoroethane	2/11/2016	50	U	55,000	no
SW-029-MWS	Shallow	4.1-11.1	1,1,2-Trichloroethane	2/11/2016	1	U	5	no
SW-029-MWS	Shallow	4.1-11.1	1,1-Biphenyl	2/11/2016	1	U	0.83	no
SW-029-MWS	Shallow	4.1-11.1	1,1-Dichloroethane	2/11/2016	0.73	J	2.7	no
SW-029-MWS	Shallow	4.1-11.1	1,1-Dichloroethene	2/11/2016	1	U	7	no
SW-029-MWS	Shallow	4.1-11.1	1,2,3-Trichlorobenzene	2/11/2016	2	U	7	no
SW-029-MWS	Shallow	4.1-11.1	1,2,4,5-Tetrachlorobenzene	2/11/2016	1	U	1.7	no
SW-029-MWS	Shallow	4.1-11.1	1,2,4-Trichlorobenzene	2/11/2016	1	U	70	no
SW-029-MWS	Shallow	4.1-11.1	1,2-Dibromo-3-chloropropane	2/11/2016	5	U	0.2	no
SW-029-MWS	Shallow	4.1-11.1	1,2-Dibromoethane	2/11/2016	1	U	0.0075	no
SW-029-MWS	Shallow	4.1-11.1	1,2-Dichlorobenzene	2/11/2016	1	U	600	no
SW-029-MWS	Shallow	4.1-11.1	1,2-Dichloroethane	2/11/2016	1	U	5	no
SW-029-MWS	Shallow	4.1-11.1	1,2-Dichloroethene (Total)	2/11/2016	2	U	70	no
SW-029-MWS	Shallow	4.1-11.1	1,2-Dichloropropane	2/11/2016	1	U	5	no
SW-029-MWS	Shallow	4.1-11.1	1,3-Dichlorobenzene	2/11/2016	1	U		no
SW-029-MWS	Shallow	4.1-11.1	1,4-Dichlorobenzene	2/11/2016	1	U	75	no
SW-029-MWS	Shallow	4.1-11.1	1,4-Dioxane	2/11/2016	0.045	J	0.46	no
SW-029-MWS	Shallow	4.1-11.1	2,3,4,6-Tetrachlorophenol	2/11/2016	1	U	240	no
SW-029-MWS	Shallow	4.1-11.1	2,4,5-Trichlorophenol	2/11/2016	2.5	U	1,200	no
SW-029-MWS	Shallow	4.1-11.1	2,4,6-Trichlorophenol	2/11/2016	1	U	4	no
SW-029-MWS	Shallow	4.1-11.1	2,4-Dichlorophenol	2/11/2016	1	U	46	no
SW-029-MWS	Shallow	4.1-11.1	2,4-Dimethylphenol	2/11/2016	1	U	360	no
SW-029-MWS	Shallow	4.1-11.1	2,4-Dinitrophenol	2/11/2016	2.5	U	39	no
SW-029-MWS	Shallow	4.1-11.1	2,4-Dinitrotoluene	2/11/2016	1	U	0.24	no
SW-029-MWS	Shallow	4.1-11.1	2,6-Dinitrotoluene	2/11/2016	1	U	0.048	no
SW-029-MWS	Shallow	4.1-11.1	2-Butanone (MEK)	2/11/2016	10	U	5,600	no
SW-029-MWS	Shallow	4.1-11.1	2-Chloronaphthalene	2/11/2016	1	U	750	no
SW-029-MWS	Shallow	4.1-11.1	2-Chlorophenol	2/11/2016	1	U	91	no
SW-029-MWS	Shallow	4.1-11.1	2-Hexanone	2/11/2016	10	U	38	no
SW-029-MWS	Shallow	4.1-11.1	2-Methylnaphthalene	2/11/2016	0.35		36	no
SW-029-MWS	Shallow	4.1-11.1	2-Methylphenol	2/11/2016	1	U	930	no
SW-029-MWS	Shallow	4.1-11.1	2-Nitroaniline	2/11/2016	2.5	U	190	no
SW-029-MWS	Shallow	4.1-11.1	3&4-Methylphenol(m&p Cresol)	2/11/2016	2	U	930	no
SW-029-MWS	Shallow	4.1-11.1	3,3'-Dichlorobenzidine	2/11/2016	1	U	0.12	no
SW-029-MWS	Shallow	4.1-11.1	4-Chloroaniline	2/11/2016	1	U	0.36	no
SW-029-MWS	Shallow	4.1-11.1	4-Methyl-2-pentanone (MIBK)	2/11/2016	10	U	1,200	no
SW-029-MWS	Shallow	4.1-11.1	4-Nitroaniline	2/11/2016	2.5	U	3.8	no
SW-029-MWS	Shallow	4.1-11.1	Acenaphthene	2/11/2016	0.19		530	no
SW-029-MWS	Shallow	4.1-11.1	Acenaphthylene	2/11/2016	0.088	J	530	no
SW-029-MWS	Shallow	4.1-11.1	Acetophenone	2/11/2016	0.45	J	1,900	no
SW-029-MWS	Shallow	4.1-11.1	Aluminum	2/11/2016	56.1		20,000	no
SW-029-MWS	Shallow	4.1-11.1	Aluminum, Dissolved	2/11/2016	42.4	J	20,000	no
SW-029-MWS	Shallow	4.1-11.1	Anthracene	2/11/2016	0.083	J	1,800	no
SW-029-MWS	Shallow	4.1-11.1	Antimony	2/11/2016	6	U	6	no
SW-029-MWS	Shallow	4.1-11.1	Antimony, Dissolved	2/11/2016	6	U	6	no
SW-029-MWS	Shallow	4.1-11.1	Arsenic	2/11/2016	5	U	10	no
SW-029-MWS	Shallow	4.1-11.1	Arsenic, Dissolved	2/11/2016	5	U	10	no
SW-029-MWS	Shallow	4.1-11.1	Barium	2/11/2016	84.3		2,000	no
SW-029-MWS	Shallow	4.1-11.1	Barium, Dissolved	2/11/2016	85.8		2,000	no
SW-029-MWS	Shallow	4.1-11.1	Benzaldehyde	2/11/2016	1	U	1,900	no
SW-029-MWS	Shallow	4.1-11.1	Benzene	2/11/2016	3.6		5	no
SW13-PZM003	Shallow	4.7-14.7	1,1-Biphenyl	3/28/2016	1.2		0.83	YES



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SW14-PZM004	Shallow	3.4-13.4	1,1-Biphenyl	3/31/2016	2.2		0.83	YES
SW-065-MWS	Shallow	4.0-14.0	Benzene	3/30/2016	9.9		5	YES
SW-029-MWS	Shallow	4.1-11.1	Benzo[g,h,i]perylene	2/11/2016	1.3	J		no
SW13-PZM003	Shallow	4.7-14.7	Benzene	3/28/2016	20.4		5	YES
SW-029-MWS	Shallow	4.1-11.1	Beryllium	2/11/2016	1	U	4	no
SW-029-MWS	Shallow	4.1-11.1	Beryllium, Dissolved	2/11/2016	1	U	4	no
SW-029-MWS	Shallow	4.1-11.1	bis(2-chloroethoxy)methane	2/11/2016	1	U	59	no
SW-029-MWS	Shallow	4.1-11.1	bis(2-Chloroethyl)ether	2/11/2016	1	U	0.014	no
SW-029-MWS	Shallow	4.1-11.1	bis(2-Chloroisopropyl)ether	2/11/2016	1	U	0.36	no
SW-029-MWS	Shallow	4.1-11.1	bis(2-Ethylhexyl)phthalate	2/11/2016	1	U	6	no
SW-029-MWS	Shallow	4.1-11.1	Bromodichloromethane	2/11/2016	1	U	0.13	no
SW-029-MWS	Shallow	4.1-11.1	Bromoform	2/11/2016	1	U	3.3	no
SW-029-MWS	Shallow	4.1-11.1	Bromomethane	2/11/2016	1	U	7.5	no
SW-029-MWS	Shallow	4.1-11.1	Cadmium	2/11/2016	0.73	J	5	no
SW-029-MWS	Shallow	4.1-11.1	Cadmium, Dissolved	2/11/2016	3	U	5	no
SW-029-MWS	Shallow	4.1-11.1	Caprolactam	2/11/2016	2.5	U	9,900	no
SW-029-MWS	Shallow	4.1-11.1	Carbazole	2/11/2016	1	U		no
SW-029-MWS	Shallow	4.1-11.1	Carbon disulfide	2/11/2016	1	U	810	no
SW-029-MWS	Shallow	4.1-11.1	Carbon tetrachloride	2/11/2016	1	U	5	no
SW-029-MWS	Shallow	4.1-11.1	Chlorobenzene	2/11/2016	1	U	100	no
SW-029-MWS	Shallow	4.1-11.1	Chloroethane	2/11/2016	1	U	21,000	no
SW-029-MWS	Shallow	4.1-11.1	Chloroform	2/11/2016	1	U	0.22	no
SW-029-MWS	Shallow	4.1-11.1	Chloromethane	2/11/2016	1	U	190	no
SW-029-MWS	Shallow	4.1-11.1	Chromium	2/11/2016	0.87	B	100	no
SW-029-MWS	Shallow	4.1-11.1	Chromium VI	2/11/2016	10	U	0.035	no
SW-029-MWS	Shallow	4.1-11.1	Chromium, Dissolved	2/11/2016	5	U	100	no
SW-029-MWS	Shallow	4.1-11.1	Chrysene	2/11/2016	0.048	B	3.4	no
SW-029-MWS	Shallow	4.1-11.1	cis-1,2-Dichloroethene	2/11/2016	1	U	70	no
SW-029-MWS	Shallow	4.1-11.1	cis-1,3-Dichloropropene	2/11/2016	1	U		no
SW-029-MWS	Shallow	4.1-11.1	Cobalt	2/11/2016	2.9	J	6	no
SW-029-MWS	Shallow	4.1-11.1	Cobalt, Dissolved	2/11/2016	1.9	B	6	no
SW-029-MWS	Shallow	4.1-11.1	Copper	2/11/2016	5	U	1,300	no
SW-029-MWS	Shallow	4.1-11.1	Copper, Dissolved	2/11/2016	5	U	1,300	no
SW-029-MWS	Shallow	4.1-11.1	Benzo[a]anthracene	2/11/2016	0.066	J	0.012	YES
SW-029-MWS	Shallow	4.1-11.1	Cyclohexane	2/11/2016	10	U	13,000	no
SW-029-MWS	Shallow	4.1-11.1	Dibenz[a,h]anthracene	2/11/2016	5.1	U	0.0034	no
SW-029-MWS	Shallow	4.1-11.1	Dibromochloromethane	2/11/2016	1	U	0.17	no
SW-029-MWS	Shallow	4.1-11.1	Dichlorodifluoromethane	2/11/2016	1	U	200	no
SW-031-MWS	Shallow	3.5-13.5	Benzo[a]anthracene	2/1/2016	0.017	J	0.012	YES
SW-029-MWS	Shallow	4.1-11.1	Diethylphthalate	2/11/2016	1	U	15,000	no
SW-029-MWS	Shallow	4.1-11.1	Di-n-butylphthalate	2/11/2016	1	U	900	no
SW-029-MWS	Shallow	4.1-11.1	Di-n-octylphthalate	2/11/2016	1	U	200	no
SW-029-MWS	Shallow	4.1-11.1	Ethylbenzene	2/11/2016	1	U	700	no
SW-029-MWS	Shallow	4.1-11.1	Fluoranthene	2/11/2016	0.091	J	800	no
SW-029-MWS	Shallow	4.1-11.1	Fluorene	2/11/2016	0.079	J	290	no
SW-029-MWS	Shallow	4.1-11.1	Gasoline Range Organics	2/11/2016	200	U	47	no
SW-029-MWS	Shallow	4.1-11.1	Hexachlorobenzene	2/11/2016	1	U	1	no
SW-029-MWS	Shallow	4.1-11.1	Hexachlorobutadiene	2/11/2016	1	U	0.14	no
SW-029-MWS	Shallow	4.1-11.1	Hexachlorocyclopentadiene	2/11/2016	1	U	50	no
SW-029-MWS	Shallow	4.1-11.1	Hexachloroethane	2/11/2016	1	U	0.33	no
SW-029-MWS	Shallow	4.1-11.1	Indeno[1,2,3-c,d]pyrene	2/11/2016	5.1	U	0.034	no
SW-029-MWS	Shallow	4.1-11.1	Iron	2/11/2016	678		14,000	no
SW-029-MWS	Shallow	4.1-11.1	Iron, Dissolved	2/11/2016	595		14,000	no
SW-029-MWS	Shallow	4.1-11.1	Isophorone	2/11/2016	1	U	78	no

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SW-029-MWS	Shallow	4.1-11.1	Isopropylbenzene	2/11/2016	1	U	450	no
SW-029-MWS	Shallow	4.1-11.1	Lead	2/11/2016	5	U	15	no
SW-029-MWS	Shallow	4.1-11.1	Lead, Dissolved	2/11/2016	5	U	15	no
SW-029-MWS	Shallow	4.1-11.1	Manganese	2/11/2016	167		430	no
SW-029-MWS	Shallow	4.1-11.1	Manganese, Dissolved	2/11/2016	183		430	no
SW-029-MWS	Shallow	4.1-11.1	Mercury	2/11/2016	0.2	U	2	no
SW-029-MWS	Shallow	4.1-11.1	Mercury, Dissolved	2/11/2016	0.2	U	2	no
SW-029-MWS	Shallow	4.1-11.1	Methyl Acetate	2/11/2016	5	U	20,000	no
SW-029-MWS	Shallow	4.1-11.1	Methyl tert-butyl ether (MTBE)	2/11/2016	1	U	14	no
SW-029-MWS	Shallow	4.1-11.1	Methylene Chloride	2/11/2016	1	U	5	no
SW-065-MWS	Shallow	4.0-14.0	Benzo[a]anthracene	3/30/2016	0.023	J	0.012	YES
SW-029-MWS	Shallow	4.1-11.1	Nickel	2/11/2016	10	U	390	no
SW-029-MWS	Shallow	4.1-11.1	Nickel, Dissolved	2/11/2016	10	U	390	no
SW-029-MWS	Shallow	4.1-11.1	Nitrobenzene	2/11/2016	1	U	0.14	no
SW-029-MWS	Shallow	4.1-11.1	N-Nitroso-di-n-propylamine	2/11/2016	1	U	0.011	no
SW-029-MWS	Shallow	4.1-11.1	N-Nitrosodiphenylamine	2/11/2016	1	U	12	no
SW-029-MWS	Shallow	4.1-11.1	Pentachlorophenol	2/11/2016	2.5	U	1	no
SW-029-MWS	Shallow	4.1-11.1	Phenanthrene	2/11/2016	0.08	J		no
SW-029-MWS	Shallow	4.1-11.1	Phenol	2/11/2016	0.32	J	5,800	no
SW-029-MWS	Shallow	4.1-11.1	Pyrene	2/11/2016	0.078	J	120	no
SW-029-MWS	Shallow	4.1-11.1	Selenium	2/11/2016	6.8	B	50	no
SW-029-MWS	Shallow	4.1-11.1	Selenium, Dissolved	2/11/2016	8	U	50	no
SW-029-MWS	Shallow	4.1-11.1	Silver	2/11/2016	6	U	94	no
SW-029-MWS	Shallow	4.1-11.1	Silver, Dissolved	2/11/2016	6	UJ	94	no
SW-029-MWS	Shallow	4.1-11.1	Styrene	2/11/2016	1	U	100	no
SW-029-MWS	Shallow	4.1-11.1	Tetrachloroethene	2/11/2016	1	U	5	no
SW-029-MWS	Shallow	4.1-11.1	Thallium	2/11/2016	10	U	2	no
SW-029-MWS	Shallow	4.1-11.1	Thallium, Dissolved	2/11/2016	10	U	2	no
SW-029-MWS	Shallow	4.1-11.1	Toluene	2/11/2016	0.49	J	1,000	no
SW-029-MWS	Shallow	4.1-11.1	trans-1,2-Dichloroethene	2/11/2016	1	U	100	no
SW-029-MWS	Shallow	4.1-11.1	trans-1,3-Dichloropropene	2/11/2016	1	U		no
SW-029-MWS	Shallow	4.1-11.1	Trichloroethene	2/11/2016	1	U	5	no
SW-029-MWS	Shallow	4.1-11.1	Trichlorofluoromethane	2/11/2016	1	UJ	1,100	no
SW-029-MWS	Shallow	4.1-11.1	Vanadium	2/11/2016	5	B	86	no
SW-029-MWS	Shallow	4.1-11.1	Vanadium, Dissolved	2/11/2016	4.6	J	86	no
SW-029-MWS	Shallow	4.1-11.1	Vinyl chloride	2/11/2016	1	U	2	no
SW-029-MWS	Shallow	4.1-11.1	Xylenes	2/11/2016	3	U	10,000	no
SW-029-MWS	Shallow	4.1-11.1	Zinc	2/11/2016	2.4	B	6,000	no
SW-029-MWS	Shallow	4.1-11.1	Zinc, Dissolved	2/11/2016	43.6		6,000	no
SW-030-MWS	Shallow	3.3-13.3	1,1,1-Trichloroethane	2/1/2016	1	U	200	no
SW-030-MWS	Shallow	3.3-13.3	1,1,2,2-Tetrachloroethane	2/1/2016	1	U	0.076	no
SW-030-MWS	Shallow	3.3-13.3	1,1,2-Trichloro-1,2,2-Trifluoroethane	2/1/2016	50	U	55,000	no
SW-030-MWS	Shallow	3.3-13.3	1,1,2-Trichloroethane	2/1/2016	1	U	5	no
SW-030-MWS	Shallow	3.3-13.3	1,1-Biphenyl	2/1/2016	1	U	0.83	no
SW-030-MWS	Shallow	3.3-13.3	1,1-Dichloroethane	2/1/2016	1	U	2.7	no
SW-030-MWS	Shallow	3.3-13.3	1,1-Dichloroethene	2/1/2016	1	U	7	no
SW-030-MWS	Shallow	3.3-13.3	1,2,3-Trichlorobenzene	2/1/2016	2	UJ	7	no
SW-030-MWS	Shallow	3.3-13.3	1,2,4,5-Tetrachlorobenzene	2/1/2016	1	U	1.7	no
SW-030-MWS	Shallow	3.3-13.3	1,2,4-Trichlorobenzene	2/1/2016	1	UJ	70	no
SW-030-MWS	Shallow	3.3-13.3	1,2-Dibromo-3-chloropropane	2/1/2016	5	U	0.2	no
SW-030-MWS	Shallow	3.3-13.3	1,2-Dibromoethane	2/1/2016	1	U	0.0075	no
SW-030-MWS	Shallow	3.3-13.3	1,2-Dichlorobenzene	2/1/2016	1	U	600	no
SW-030-MWS	Shallow	3.3-13.3	1,2-Dichloroethane	2/1/2016	1	U	5	no
SW-030-MWS	Shallow	3.3-13.3	1,2-Dichloroethene (Total)	2/1/2016	2	U	70	no

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SW-030-MWS	Shallow	3.3-13.3	1,2-Dichloropropane	2/1/2016	1	U	5	no
SW-030-MWS	Shallow	3.3-13.3	1,3-Dichlorobenzene	2/1/2016	1	U		no
SW-030-MWS	Shallow	3.3-13.3	1,4-Dichlorobenzene	2/1/2016	1	U	75	no
SW-030-MWS	Shallow	3.3-13.3	1,4-Dioxane	2/1/2016	0.1		0.46	no
SW-030-MWS	Shallow	3.3-13.3	2,3,4,6-Tetrachlorophenol	2/1/2016	1	U	240	no
SW-030-MWS	Shallow	3.3-13.3	2,4,5-Trichlorophenol	2/1/2016	2.6	U	1,200	no
SW-030-MWS	Shallow	3.3-13.3	2,4,6-Trichlorophenol	2/1/2016	1	U	4	no
SW-030-MWS	Shallow	3.3-13.3	2,4-Dichlorophenol	2/1/2016	1	U	46	no
SW-030-MWS	Shallow	3.3-13.3	2,4-Dimethylphenol	2/1/2016	1	U	360	no
SW-030-MWS	Shallow	3.3-13.3	2,4-Dinitrophenol	2/1/2016	2.6	U	39	no
SW-030-MWS	Shallow	3.3-13.3	2,4-Dinitrotoluene	2/1/2016	1	U	0.24	no
SW-030-MWS	Shallow	3.3-13.3	2,6-Dinitrotoluene	2/1/2016	1	U	0.048	no
SW-030-MWS	Shallow	3.3-13.3	2-Butanone (MEK)	2/1/2016	10	U	5,600	no
SW-030-MWS	Shallow	3.3-13.3	2-Chloronaphthalene	2/1/2016	1	U	750	no
SW-030-MWS	Shallow	3.3-13.3	2-Chlorophenol	2/1/2016	1	U	91	no
SW-030-MWS	Shallow	3.3-13.3	2-Hexanone	2/1/2016	10	U	38	no
SW-030-MWS	Shallow	3.3-13.3	2-Methylnaphthalene	2/1/2016	0.1	U	36	no
SW-030-MWS	Shallow	3.3-13.3	2-Methylphenol	2/1/2016	1	U	930	no
SW-030-MWS	Shallow	3.3-13.3	2-Nitroaniline	2/1/2016	2.6	U	190	no
SW-030-MWS	Shallow	3.3-13.3	3&4-Methylphenol(m&p Cresol)	2/1/2016	2.1	U	930	no
SW-030-MWS	Shallow	3.3-13.3	3,3'-Dichlorobenzidine	2/1/2016	1	U	0.12	no
SW-030-MWS	Shallow	3.3-13.3	4-Chloroaniline	2/1/2016	1	U	0.36	no
SW-030-MWS	Shallow	3.3-13.3	4-Methyl-2-pentanone (MIBK)	2/1/2016	10	U	1,200	no
SW-030-MWS	Shallow	3.3-13.3	4-Nitroaniline	2/1/2016	2.6	U	3.8	no
SW-030-MWS	Shallow	3.3-13.3	Acenaphthene	2/1/2016	0.1	U	530	no
SW-030-MWS	Shallow	3.3-13.3	Acenaphthylene	2/1/2016	0.1	U	530	no
SW-030-MWS	Shallow	3.3-13.3	Acetone	2/1/2016	10	U	14,000	no
SW-030-MWS	Shallow	3.3-13.3	Acetophenone	2/1/2016	1	U	1,900	no
SW-030-MWS	Shallow	3.3-13.3	Aluminum	2/1/2016	766		20,000	no
SW-030-MWS	Shallow	3.3-13.3	Aluminum, Dissolved	2/1/2016	698		20,000	no
SW-030-MWS	Shallow	3.3-13.3	Anthracene	2/1/2016	0.026	J	1,800	no
SW-030-MWS	Shallow	3.3-13.3	Antimony	2/1/2016	6	U	6	no
SW-030-MWS	Shallow	3.3-13.3	Antimony, Dissolved	2/1/2016	6	U	6	no
SW-030-MWS	Shallow	3.3-13.3	Arsenic	2/1/2016	3.9	J	10	no
SW-030-MWS	Shallow	3.3-13.3	Arsenic, Dissolved	2/1/2016	4.5	B	10	no
SW-030-MWS	Shallow	3.3-13.3	Barium	2/1/2016	22.6		2,000	no
SW-030-MWS	Shallow	3.3-13.3	Barium, Dissolved	2/1/2016	21.6		2,000	no
SW-030-MWS	Shallow	3.3-13.3	Benzaldehyde	2/1/2016	1	U	1,900	no
SW-030-MWS	Shallow	3.3-13.3	Benzene	2/1/2016	1	U	5	no
SW-030-MWS	Shallow	3.3-13.3	Benzo[a]anthracene	2/1/2016	0.1	U	0.012	no
SW-030-MWS	Shallow	3.3-13.3	Benzo[a]pyrene	2/1/2016	0.1	U	0.2	no
SW-030-MWS	Shallow	3.3-13.3	Benzo[b]fluoranthene	2/1/2016	0.1	U	0.034	no
SW-030-MWS	Shallow	3.3-13.3	Benzo[g,h,i]perylene	2/1/2016	0.1	U		no
SW-030-MWS	Shallow	3.3-13.3	Benzo[k]fluoranthene	2/1/2016	0.1	U	0.34	no
SW-030-MWS	Shallow	3.3-13.3	Beryllium	2/1/2016	1	U	4	no
SW-030-MWS	Shallow	3.3-13.3	Beryllium, Dissolved	2/1/2016	1	U	4	no
SW-030-MWS	Shallow	3.3-13.3	bis(2-chloroethoxy)methane	2/1/2016	1	U	59	no
SW-030-MWS	Shallow	3.3-13.3	bis(2-Chloroethyl)ether	2/1/2016	1	U	0.014	no
SW-030-MWS	Shallow	3.3-13.3	bis(2-Chloroisopropyl)ether	2/1/2016	1	U	0.36	no
SW-030-MWS	Shallow	3.3-13.3	bis(2-Ethylhexyl)phthalate	2/1/2016	1	U	6	no
SW-030-MWS	Shallow	3.3-13.3	Bromodichloromethane	2/1/2016	1	U	0.13	no
SW-030-MWS	Shallow	3.3-13.3	Bromoform	2/1/2016	1	U	3.3	no
SW-030-MWS	Shallow	3.3-13.3	Bromomethane	2/1/2016	1	U	7.5	no
SW-030-MWS	Shallow	3.3-13.3	Cadmium	2/1/2016	3	U	5	no

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SW-030-MWS	Shallow	3.3-13.3	Cadmium, Dissolved	2/1/2016	3	U	5	no
SW-030-MWS	Shallow	3.3-13.3	Caprolactam	2/1/2016	2.6	U	9,900	no
SW-030-MWS	Shallow	3.3-13.3	Carbazole	2/1/2016	1	U		no
SW-030-MWS	Shallow	3.3-13.3	Carbon disulfide	2/1/2016	1	U	810	no
SW-030-MWS	Shallow	3.3-13.3	Carbon tetrachloride	2/1/2016	1	U	5	no
SW-030-MWS	Shallow	3.3-13.3	Chlorobenzene	2/1/2016	1	U	100	no
SW-030-MWS	Shallow	3.3-13.3	Chloroethane	2/1/2016	1	U	21,000	no
SW-030-MWS	Shallow	3.3-13.3	Chloroform	2/1/2016	1	U	0.22	no
SW-030-MWS	Shallow	3.3-13.3	Chloromethane	2/1/2016	1	UJ	190	no
SW-030-MWS	Shallow	3.3-13.3	Chromium	2/1/2016	5	U	100	no
SW-030-MWS	Shallow	3.3-13.3	Chromium VI	2/1/2016	10	U	0.035	no
SW-030-MWS	Shallow	3.3-13.3	Chromium, Dissolved	2/1/2016	5	U	100	no
SW-030-MWS	Shallow	3.3-13.3	Chrysene	2/1/2016	0.1	U	3.4	no
SW-030-MWS	Shallow	3.3-13.3	cis-1,2-Dichloroethene	2/1/2016	1	U	70	no
SW-030-MWS	Shallow	3.3-13.3	cis-1,3-Dichloropropene	2/1/2016	1	U		no
SW-030-MWS	Shallow	3.3-13.3	Cobalt	2/1/2016	5	U	6	no
SW-030-MWS	Shallow	3.3-13.3	Cobalt, Dissolved	2/1/2016	5	U	6	no
SW-030-MWS	Shallow	3.3-13.3	Copper	2/1/2016	1.9	B	1,300	no
SW-030-MWS	Shallow	3.3-13.3	Copper, Dissolved	2/1/2016	5	U	1,300	no
SW-030-MWS	Shallow	3.3-13.3	Cyanide	2/1/2016	64.6		200	no
SW-030-MWS	Shallow	3.3-13.3	Cyclohexane	2/1/2016	10	U	13,000	no
SW-030-MWS	Shallow	3.3-13.3	Dibenz[a,h]anthracene	2/1/2016	0.1	U	0.0034	no
SW-030-MWS	Shallow	3.3-13.3	Dibromochloromethane	2/1/2016	1	U	0.17	no
SW-030-MWS	Shallow	3.3-13.3	Dichlorodifluoromethane	2/1/2016	1	U	200	no
SW13-PZM003	Shallow	4.7-14.7	Benzo[a]anthracene	3/28/2016	0.33		0.012	YES
SW-030-MWS	Shallow	3.3-13.3	Diethylphthalate	2/1/2016	1	U	15,000	no
SW-030-MWS	Shallow	3.3-13.3	Di-n-butylphthalate	2/1/2016	1	U	900	no
SW-030-MWS	Shallow	3.3-13.3	Di-n-octylphthalate	2/1/2016	1	U	200	no
SW-030-MWS	Shallow	3.3-13.3	Ethylbenzene	2/1/2016	1	U	700	no
SW-030-MWS	Shallow	3.3-13.3	Fluoranthene	2/1/2016	0.1	U	800	no
SW-030-MWS	Shallow	3.3-13.3	Fluorene	2/1/2016	0.1	U	290	no
SW-030-MWS	Shallow	3.3-13.3	Gasoline Range Organics	2/1/2016	200	U	47	no
SW-030-MWS	Shallow	3.3-13.3	Hexachlorobenzene	2/1/2016	1	U	1	no
SW-030-MWS	Shallow	3.3-13.3	Hexachlorobutadiene	2/1/2016	1	U	0.14	no
SW-030-MWS	Shallow	3.3-13.3	Hexachlorocyclopentadiene	2/1/2016	1	U	50	no
SW-030-MWS	Shallow	3.3-13.3	Hexachloroethane	2/1/2016	1	U	0.33	no
SW-030-MWS	Shallow	3.3-13.3	Indeno[1,2,3-c,d]pyrene	2/1/2016	0.1	U	0.034	no
SW-030-MWS	Shallow	3.3-13.3	Iron	2/1/2016	131		14,000	no
SW-030-MWS	Shallow	3.3-13.3	Iron, Dissolved	2/1/2016	29.9	J	14,000	no
SW-030-MWS	Shallow	3.3-13.3	Isophorone	2/1/2016	1	U	78	no
SW-030-MWS	Shallow	3.3-13.3	Isopropylbenzene	2/1/2016	1	U	450	no
SW-030-MWS	Shallow	3.3-13.3	Lead	2/1/2016	5	U	15	no
SW-030-MWS	Shallow	3.3-13.3	Lead, Dissolved	2/1/2016	5	U	15	no
SW-030-MWS	Shallow	3.3-13.3	Manganese	2/1/2016	4.7	B	430	no
SW-030-MWS	Shallow	3.3-13.3	Manganese, Dissolved	2/1/2016	0.92	J	430	no
SW-030-MWS	Shallow	3.3-13.3	Mercury	2/1/2016	0.2	UJ	2	no
SW-030-MWS	Shallow	3.3-13.3	Mercury, Dissolved	2/1/2016	0.2	UJ	2	no
SW-030-MWS	Shallow	3.3-13.3	Methyl Acetate	2/1/2016	5	U	20,000	no
SW-030-MWS	Shallow	3.3-13.3	Methyl tert-butyl ether (MTBE)	2/1/2016	1	U	14	no
SW-030-MWS	Shallow	3.3-13.3	Methylene Chloride	2/1/2016	1	U	5	no
SW-030-MWS	Shallow	3.3-13.3	Naphthalene	2/1/2016	0.027	B	0.17	no
SW-030-MWS	Shallow	3.3-13.3	Nickel	2/1/2016	1.6	B	390	no
SW-030-MWS	Shallow	3.3-13.3	Nickel, Dissolved	2/1/2016	3.6	B	390	no
SW-030-MWS	Shallow	3.3-13.3	Nitrobenzene	2/1/2016	1	U	0.14	no

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SW-030-MWS	Shallow	3.3-13.3	N-Nitroso-di-n-propylamine	2/1/2016	1	U	0.011	no
SW-030-MWS	Shallow	3.3-13.3	N-Nitrosodiphenylamine	2/1/2016	1	U	12	no
SW-030-MWS	Shallow	3.3-13.3	Pentachlorophenol	2/1/2016	2.6	U	1	no
SW-030-MWS	Shallow	3.3-13.3	Phenanthrene	2/1/2016	0.1	U		no
SW-030-MWS	Shallow	3.3-13.3	Phenol	2/1/2016	1	U	5,800	no
SW-030-MWS	Shallow	3.3-13.3	Pyrene	2/1/2016	0.1	U	120	no
SW-030-MWS	Shallow	3.3-13.3	Selenium	2/1/2016	8	U	50	no
SW-030-MWS	Shallow	3.3-13.3	Selenium, Dissolved	2/1/2016	8	U	50	no
SW-030-MWS	Shallow	3.3-13.3	Silver	2/1/2016	6	U	94	no
SW-030-MWS	Shallow	3.3-13.3	Silver, Dissolved	2/1/2016	6	U	94	no
SW-030-MWS	Shallow	3.3-13.3	Styrene	2/1/2016	1	U	100	no
SW-030-MWS	Shallow	3.3-13.3	Tetrachloroethene	2/1/2016	1	U	5	no
SW-030-MWS	Shallow	3.3-13.3	Thallium	2/1/2016	10	U	2	no
SW14-PZM004	Shallow	3.4-13.4	Benzo[a]anthracene	3/31/2016	0.33		0.012	YES
SW-030-MWS	Shallow	3.3-13.3	Toluene	2/1/2016	1	U	1,000	no
SW-030-MWS	Shallow	3.3-13.3	trans-1,2-Dichloroethene	2/1/2016	1	U	100	no
SW-030-MWS	Shallow	3.3-13.3	trans-1,3-Dichloropropene	2/1/2016	1	U		no
SW-030-MWS	Shallow	3.3-13.3	Trichloroethene	2/1/2016	1	U	5	no
SW-030-MWS	Shallow	3.3-13.3	Trichlorofluoromethane	2/1/2016	1	U	1,100	no
SW-030-MWS	Shallow	3.3-13.3	Vanadium	2/1/2016	38.2		86	no
SW-030-MWS	Shallow	3.3-13.3	Vanadium, Dissolved	2/1/2016	39.6		86	no
SW-030-MWS	Shallow	3.3-13.3	Vinyl chloride	2/1/2016	1	U	2	no
SW-030-MWS	Shallow	3.3-13.3	Xylenes	2/1/2016	3	U	10,000	no
SW-030-MWS	Shallow	3.3-13.3	Zinc	2/1/2016	6.9	B	6,000	no
SW-030-MWS	Shallow	3.3-13.3	Zinc, Dissolved	2/1/2016	2.2	B	6,000	no
SW-031-MWS	Shallow	3.5-13.5	1,1,1-Trichloroethane	2/1/2016	1	U	200	no
SW-031-MWS	Shallow	3.5-13.5	1,1,2,2-Tetrachloroethane	2/1/2016	1	U	0.076	no
SW-031-MWS	Shallow	3.5-13.5	1,1,2-Trichloro-1,2,2-Trifluoroethane	2/1/2016	50	U	55,000	no
SW-031-MWS	Shallow	3.5-13.5	1,1,2-Trichloroethane	2/1/2016	1	U	5	no
SW-031-MWS	Shallow	3.5-13.5	1,1-Biphenyl	2/1/2016	1.1	U	0.83	no
SW-031-MWS	Shallow	3.5-13.5	1,1-Dichloroethane	2/1/2016	1	U	2.7	no
SW-031-MWS	Shallow	3.5-13.5	1,1-Dichloroethene	2/1/2016	1	U	7	no
SW-031-MWS	Shallow	3.5-13.5	1,2,3-Trichlorobenzene	2/1/2016	2	UJ	7	no
SW-031-MWS	Shallow	3.5-13.5	1,2,4,5-Tetrachlorobenzene	2/1/2016	1.1	U	1.7	no
SW-031-MWS	Shallow	3.5-13.5	1,2,4-Trichlorobenzene	2/1/2016	1	UJ	70	no
SW-031-MWS	Shallow	3.5-13.5	1,2-Dibromo-3-chloropropane	2/1/2016	5	U	0.2	no
SW-031-MWS	Shallow	3.5-13.5	1,2-Dibromoethane	2/1/2016	1	U	0.0075	no
SW-031-MWS	Shallow	3.5-13.5	1,2-Dichlorobenzene	2/1/2016	1	U	600	no
SW-031-MWS	Shallow	3.5-13.5	1,2-Dichloroethane	2/1/2016	1	U	5	no
SW-031-MWS	Shallow	3.5-13.5	1,2-Dichloroethene (Total)	2/1/2016	2	U	70	no
SW-031-MWS	Shallow	3.5-13.5	1,2-Dichloropropane	2/1/2016	1	U	5	no
SW-031-MWS	Shallow	3.5-13.5	1,3-Dichlorobenzene	2/1/2016	1	U		no
SW-031-MWS	Shallow	3.5-13.5	1,4-Dichlorobenzene	2/1/2016	1	U	75	no
SW-031-MWS	Shallow	3.5-13.5	1,4-Dioxane	2/1/2016	0.11		0.46	no
SW-031-MWS	Shallow	3.5-13.5	2,3,4,6-Tetrachlorophenol	2/1/2016	1.1	U	240	no
SW-031-MWS	Shallow	3.5-13.5	2,4,5-Trichlorophenol	2/1/2016	2.6	U	1,200	no
SW-031-MWS	Shallow	3.5-13.5	2,4,6-Trichlorophenol	2/1/2016	1.1	U	4	no
SW-031-MWS	Shallow	3.5-13.5	2,4-Dichlorophenol	2/1/2016	1.1	U	46	no
SW-031-MWS	Shallow	3.5-13.5	2,4-Dimethylphenol	2/1/2016	1.1	U	360	no
SW-031-MWS	Shallow	3.5-13.5	2,4-Dinitrophenol	2/1/2016	2.6	U	39	no
SW-031-MWS	Shallow	3.5-13.5	2,4-Dinitrotoluene	2/1/2016	1.1	U	0.24	no
SW-031-MWS	Shallow	3.5-13.5	2,6-Dinitrotoluene	2/1/2016	1.1	U	0.048	no
SW-031-MWS	Shallow	3.5-13.5	2-Butanone (MEK)	2/1/2016	10	U	5,600	no
SW-031-MWS	Shallow	3.5-13.5	2-Chloronaphthalene	2/1/2016	1.1	U	750	no

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SW-031-MWS	Shallow	3.5-13.5	2-Chlorophenol	2/1/2016	1.1	U	91	no
SW-031-MWS	Shallow	3.5-13.5	2-Hexanone	2/1/2016	10	U	38	no
SW-031-MWS	Shallow	3.5-13.5	2-Methylnaphthalene	2/1/2016	0.022	J	36	no
SW-031-MWS	Shallow	3.5-13.5	2-Methylphenol	2/1/2016	1.1	U	930	no
SW-031-MWS	Shallow	3.5-13.5	2-Nitroaniline	2/1/2016	2.6	U	190	no
SW-031-MWS	Shallow	3.5-13.5	3&4-Methylphenol(m&p Cresol)	2/1/2016	2.1	U	930	no
SW-031-MWS	Shallow	3.5-13.5	3,3'-Dichlorobenzidine	2/1/2016	1.1	U	0.12	no
SW-031-MWS	Shallow	3.5-13.5	4-Chloroaniline	2/1/2016	1.1	U	0.36	no
SW-031-MWS	Shallow	3.5-13.5	4-Methyl-2-pentanone (MIBK)	2/1/2016	10	U	1,200	no
SW-031-MWS	Shallow	3.5-13.5	4-Nitroaniline	2/1/2016	2.6	U	3.8	no
SW-031-MWS	Shallow	3.5-13.5	Acenaphthene	2/1/2016	0.02	J	530	no
SW-031-MWS	Shallow	3.5-13.5	Acenaphthylene	2/1/2016	0.11	U	530	no
SW-031-MWS	Shallow	3.5-13.5	Acetone	2/1/2016	10	U	14,000	no
SW-031-MWS	Shallow	3.5-13.5	Acetophenone	2/1/2016	1.1	U	1,900	no
SW-031-MWS	Shallow	3.5-13.5	Aluminum	2/1/2016	320		20,000	no
SW-031-MWS	Shallow	3.5-13.5	Aluminum, Dissolved	2/1/2016	83.5		20,000	no
SW-031-MWS	Shallow	3.5-13.5	Anthracene	2/1/2016	0.058	J	1,800	no
SW-031-MWS	Shallow	3.5-13.5	Antimony	2/1/2016	6	U	6	no
SW-031-MWS	Shallow	3.5-13.5	Antimony, Dissolved	2/1/2016	6	U	6	no
SW-031-MWS	Shallow	3.5-13.5	Arsenic	2/1/2016	3.8	J	10	no
SW-031-MWS	Shallow	3.5-13.5	Arsenic, Dissolved	2/1/2016	3.1	B	10	no
SW-031-MWS	Shallow	3.5-13.5	Barium	2/1/2016	30.1		2,000	no
SW-031-MWS	Shallow	3.5-13.5	Barium, Dissolved	2/1/2016	29.4		2,000	no
SW-031-MWS	Shallow	3.5-13.5	Benzaldehyde	2/1/2016	1.1	U	1,900	no
SW-031-MWS	Shallow	3.5-13.5	Benzene	2/1/2016	1	U	5	no
SW-029-MWS	Shallow	4.1-11.1	Benzo[a]pyrene	2/11/2016	1.2	J	0.2	YES
SW-031-MWS	Shallow	3.5-13.5	Benzo[a]pyrene	2/1/2016	0.11	U	0.2	no
SW-031-MWS	Shallow	3.5-13.5	Benzo[b]fluoranthene	2/1/2016	0.11	U	0.034	no
SW-031-MWS	Shallow	3.5-13.5	Benzo[g,h,i]perylene	2/1/2016	0.11	U		no
SW-031-MWS	Shallow	3.5-13.5	Benzo[k]fluoranthene	2/1/2016	0.11	U	0.34	no
SW-031-MWS	Shallow	3.5-13.5	Beryllium	2/1/2016	1	U	4	no
SW-031-MWS	Shallow	3.5-13.5	Beryllium, Dissolved	2/1/2016	1	U	4	no
SW-031-MWS	Shallow	3.5-13.5	bis(2-chloroethoxy)methane	2/1/2016	1.1	U	59	no
SW-031-MWS	Shallow	3.5-13.5	bis(2-Chloroethyl)ether	2/1/2016	1.1	U	0.014	no
SW-031-MWS	Shallow	3.5-13.5	bis(2-Chloroisopropyl)ether	2/1/2016	1.1	U	0.36	no
SW-031-MWS	Shallow	3.5-13.5	bis(2-Ethylhexyl)phthalate	2/1/2016	1.1	U	6	no
SW-031-MWS	Shallow	3.5-13.5	Bromodichloromethane	2/1/2016	1	U	0.13	no
SW-031-MWS	Shallow	3.5-13.5	Bromoform	2/1/2016	1	U	3.3	no
SW-031-MWS	Shallow	3.5-13.5	Bromomethane	2/1/2016	1	U	7.5	no
SW-031-MWS	Shallow	3.5-13.5	Cadmium	2/1/2016	3	U	5	no
SW-031-MWS	Shallow	3.5-13.5	Cadmium, Dissolved	2/1/2016	3	U	5	no
SW-031-MWS	Shallow	3.5-13.5	Caprolactam	2/1/2016	2.6	U	9,900	no
SW-031-MWS	Shallow	3.5-13.5	Carbazole	2/1/2016	1.1	U		no
SW-031-MWS	Shallow	3.5-13.5	Carbon disulfide	2/1/2016	1	U	810	no
SW-031-MWS	Shallow	3.5-13.5	Carbon tetrachloride	2/1/2016	1	U	5	no
SW-031-MWS	Shallow	3.5-13.5	Chlorobenzene	2/1/2016	1	U	100	no
SW-031-MWS	Shallow	3.5-13.5	Chloroethane	2/1/2016	1	U	21,000	no
SW-031-MWS	Shallow	3.5-13.5	Chloroform	2/1/2016	1	U	0.22	no
SW-031-MWS	Shallow	3.5-13.5	Chloromethane	2/1/2016	1	UJ	190	no
SW-031-MWS	Shallow	3.5-13.5	Chromium	2/1/2016	1.4	J	100	no
SW-031-MWS	Shallow	3.5-13.5	Chromium VI	2/1/2016	10	U	0.035	no
SW-031-MWS	Shallow	3.5-13.5	Chromium, Dissolved	2/1/2016	5	U	100	no
SW-031-MWS	Shallow	3.5-13.5	Chrysene	2/1/2016	0.0091	J	3.4	no
SW-031-MWS	Shallow	3.5-13.5	cis-1,2-Dichloroethene	2/1/2016	1	U	70	no

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Well	Zone	Screen Interval (feet bgs)	Parameter	Sample Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
SW-031-MWS	Shallow	3.5-13.5	cis-1,3-Dichloropropene	2/1/2016	1	U		no
SW-031-MWS	Shallow	3.5-13.5	Cobalt	2/1/2016	5	U	6	no
SW-031-MWS	Shallow	3.5-13.5	Cobalt, Dissolved	2/1/2016	5	U	6	no
SW-031-MWS	Shallow	3.5-13.5	Copper	2/1/2016	5	U	1,300	no
SW-031-MWS	Shallow	3.5-13.5	Copper, Dissolved	2/1/2016	5	U	1,300	no
SW-031-MWS	Shallow	3.5-13.5	Cyanide	2/1/2016	6.1	J	200	no
SW-031-MWS	Shallow	3.5-13.5	Cyclohexane	2/1/2016	10	U	13,000	no
SW-031-MWS	Shallow	3.5-13.5	Dibenz[a,h]anthracene	2/1/2016	0.11	U	0.0034	no
SW-031-MWS	Shallow	3.5-13.5	Dibromochloromethane	2/1/2016	1	U	0.17	no
SW-031-MWS	Shallow	3.5-13.5	Dichlorodifluoromethane	2/1/2016	1	U	200	no
SW-029-MWS	Shallow	4.1-11.1	Benzo[b]fluoranthene	2/11/2016	2.7	B	0.034	YES
SW-031-MWS	Shallow	3.5-13.5	Diethylphthalate	2/1/2016	1.1	U	15,000	no
SW-031-MWS	Shallow	3.5-13.5	Di-n-butylphthalate	2/1/2016	1.1	U	900	no
SW-031-MWS	Shallow	3.5-13.5	Di-n-octylphthalate	2/1/2016	1.1	U	200	no
SW-031-MWS	Shallow	3.5-13.5	Ethylbenzene	2/1/2016	1	U	700	no
SW-031-MWS	Shallow	3.5-13.5	Fluoranthene	2/1/2016	0.038	J	800	no
SW-031-MWS	Shallow	3.5-13.5	Fluorene	2/1/2016	0.026	J	290	no
SW-031-MWS	Shallow	3.5-13.5	Gasoline Range Organics	2/1/2016	200	U	47	no
SW-031-MWS	Shallow	3.5-13.5	Hexachlorobenzene	2/1/2016	1.1	U	1	no
SW-031-MWS	Shallow	3.5-13.5	Hexachlorobutadiene	2/1/2016	1.1	U	0.14	no
SW-031-MWS	Shallow	3.5-13.5	Hexachlorocyclopentadiene	2/1/2016	1.1	U	50	no
SW-031-MWS	Shallow	3.5-13.5	Hexachloroethane	2/1/2016	1.1	U	0.33	no
SW-031-MWS	Shallow	3.5-13.5	Indeno[1,2,3-c,d]pyrene	2/1/2016	0.11	U	0.034	no
SW-031-MWS	Shallow	3.5-13.5	Iron	2/1/2016	346		14,000	no
SW-031-MWS	Shallow	3.5-13.5	Iron, Dissolved	2/1/2016	70	U	14,000	no
SW-031-MWS	Shallow	3.5-13.5	Isophorone	2/1/2016	1.1	U	78	no
SW-031-MWS	Shallow	3.5-13.5	Isopropylbenzene	2/1/2016	1	U	450	no
SW-031-MWS	Shallow	3.5-13.5	Lead	2/1/2016	5	U	15	no
SW-031-MWS	Shallow	3.5-13.5	Lead, Dissolved	2/1/2016	5	U	15	no
SW-031-MWS	Shallow	3.5-13.5	Manganese	2/1/2016	46.7		430	no
SW-031-MWS	Shallow	3.5-13.5	Manganese, Dissolved	2/1/2016	40.4		430	no
SW-031-MWS	Shallow	3.5-13.5	Mercury	2/1/2016	0.2	UJ	2	no
SW-031-MWS	Shallow	3.5-13.5	Mercury, Dissolved	2/1/2016	0.2	UJ	2	no
SW-031-MWS	Shallow	3.5-13.5	Methyl Acetate	2/1/2016	5	U	20,000	no
SW-031-MWS	Shallow	3.5-13.5	Methyl tert-butyl ether (MTBE)	2/1/2016	1	U	14	no
SW-031-MWS	Shallow	3.5-13.5	Methylene Chloride	2/1/2016	1	U	5	no
SW-031-MWS	Shallow	3.5-13.5	Naphthalene	2/1/2016	0.037	B	0.17	no
SW-031-MWS	Shallow	3.5-13.5	Nickel	2/1/2016	2.8	B	390	no
SW-031-MWS	Shallow	3.5-13.5	Nickel, Dissolved	2/1/2016	1.7	B	390	no
SW-031-MWS	Shallow	3.5-13.5	Nitrobenzene	2/1/2016	1.1	U	0.14	no
SW-031-MWS	Shallow	3.5-13.5	N-Nitroso-di-n-propylamine	2/1/2016	1.1	U	0.011	no
SW-031-MWS	Shallow	3.5-13.5	N-Nitrosodiphenylamine	2/1/2016	1.1	U	12	no
SW-031-MWS	Shallow	3.5-13.5	Pentachlorophenol	2/1/2016	2.6	U	1	no
SW-031-MWS	Shallow	3.5-13.5	Phenanthrene	2/1/2016	0.12			no
SW-031-MWS	Shallow	3.5-13.5	Phenol	2/1/2016	1.1	U	5,800	no
SW-031-MWS	Shallow	3.5-13.5	Pyrene	2/1/2016	0.031	J	120	no
SW-031-MWS	Shallow	3.5-13.5	Selenium	2/1/2016	8	U	50	no
SW-031-MWS	Shallow	3.5-13.5	Selenium, Dissolved	2/1/2016	8	U	50	no
SW-031-MWS	Shallow	3.5-13.5	Silver	2/1/2016	6	U	94	no
SW-031-MWS	Shallow	3.5-13.5	Silver, Dissolved	2/1/2016	6	U	94	no
SW-031-MWS	Shallow	3.5-13.5	Styrene	2/1/2016	1	U	100	no
SW-031-MWS	Shallow	3.5-13.5	Tetrachloroethene	2/1/2016	1	U	5	no
SW-031-MWS	Shallow	3.5-13.5	Thallium	2/1/2016	10	U	2	no
SW-031-MWS	Shallow	3.5-13.5	Thallium, Dissolved	2/1/2016	10	U	2	no

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Well	Zone	Screen Interval (feet bgs)	Parameter	Sample Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
SW-031-MWS	Shallow	3.5-13.5	Toluene	2/1/2016	1	U	1,000	no
SW-031-MWS	Shallow	3.5-13.5	trans-1,2-Dichloroethene	2/1/2016	1	U	100	no
SW-031-MWS	Shallow	3.5-13.5	trans-1,3-Dichloropropene	2/1/2016	1	U		no
SW-031-MWS	Shallow	3.5-13.5	Trichloroethene	2/1/2016	1	U	5	no
SW-031-MWS	Shallow	3.5-13.5	Trichlorofluoromethane	2/1/2016	1	U	1,100	no
SW-031-MWS	Shallow	3.5-13.5	Vanadium	2/1/2016	6.6		86	no
SW-031-MWS	Shallow	3.5-13.5	Vanadium, Dissolved	2/1/2016	6.2		86	no
SW-031-MWS	Shallow	3.5-13.5	Vinyl chloride	2/1/2016	1	U	2	no
SW-031-MWS	Shallow	3.5-13.5	Xylenes	2/1/2016	3	U	10,000	no
SW-031-MWS	Shallow	3.5-13.5	Zinc	2/1/2016	2.8	B	6,000	no
SW-031-MWS	Shallow	3.5-13.5	Zinc, Dissolved	2/1/2016	3.9	B	6,000	no
SW-065-MWS	Shallow	4.0-14.0	1,1,1-Trichloroethane	3/30/2016	1	U	200	no
SW-065-MWS	Shallow	4.0-14.0	1,1,2,2-Tetrachloroethane	3/30/2016	1	U	0.076	no
SW-065-MWS	Shallow	4.0-14.0	1,1,2-Trichloro-1,2,2-Trifluoroethane	3/30/2016	50	U	55,000	no
SW-065-MWS	Shallow	4.0-14.0	1,1,2-Trichloroethane	3/30/2016	1	U	5	no
SW-065-MWS	Shallow	4.0-14.0	1,1-Biphenyl	3/30/2016	1	U	0.83	no
SW-065-MWS	Shallow	4.0-14.0	1,1-Dichloroethane	3/30/2016	1	U	2.7	no
SW-065-MWS	Shallow	4.0-14.0	1,1-Dichloroethene	3/30/2016	1	U	7	no
SW-065-MWS	Shallow	4.0-14.0	1,2,3-Trichlorobenzene	3/30/2016	2	U	7	no
SW-065-MWS	Shallow	4.0-14.0	1,2,4,5-Tetrachlorobenzene	3/30/2016	1	U	1.7	no
SW-065-MWS	Shallow	4.0-14.0	1,2,4-Trichlorobenzene	3/30/2016	1	U	70	no
SW-065-MWS	Shallow	4.0-14.0	1,2-Dibromo-3-chloropropane	3/30/2016	5	U	0.2	no
SW-065-MWS	Shallow	4.0-14.0	1,2-Dibromoethane	3/30/2016	1	U	0.0075	no
SW-065-MWS	Shallow	4.0-14.0	1,2-Dichlorobenzene	3/30/2016	1	U	600	no
SW-065-MWS	Shallow	4.0-14.0	1,2-Dichloroethane	3/30/2016	1	U	5	no
SW-065-MWS	Shallow	4.0-14.0	1,2-Dichloroethene (Total)	3/30/2016	2	U	70	no
SW-065-MWS	Shallow	4.0-14.0	1,2-Dichloropropane	3/30/2016	1	U	5	no
SW-065-MWS	Shallow	4.0-14.0	1,3-Dichlorobenzene	3/30/2016	1	U		no
SW-065-MWS	Shallow	4.0-14.0	1,4-Dichlorobenzene	3/30/2016	1	U	75	no
SW-065-MWS	Shallow	4.0-14.0	1,4-Dioxane	3/30/2016	0.13		0.46	no
SW-065-MWS	Shallow	4.0-14.0	2,3,4,6-Tetrachlorophenol	3/30/2016	1	U	240	no
SW-065-MWS	Shallow	4.0-14.0	2,4,5-Trichlorophenol	3/30/2016	2.6	U	1,200	no
SW-065-MWS	Shallow	4.0-14.0	2,4,6-Trichlorophenol	3/30/2016	1	U	4	no
SW-065-MWS	Shallow	4.0-14.0	2,4-Dichlorophenol	3/30/2016	1	U	46	no
SW-065-MWS	Shallow	4.0-14.0	2,4-Dimethylphenol	3/30/2016	2.7		360	no
SW-065-MWS	Shallow	4.0-14.0	2,4-Dinitrophenol	3/30/2016	2.6	U	39	no
SW-065-MWS	Shallow	4.0-14.0	2,4-Dinitrotoluene	3/30/2016	1	U	0.24	no
SW-065-MWS	Shallow	4.0-14.0	2,6-Dinitrotoluene	3/30/2016	1	U	0.048	no
SW-065-MWS	Shallow	4.0-14.0	2-Butanone (MEK)	3/30/2016	10	U	5,600	no
SW-065-MWS	Shallow	4.0-14.0	2-Chloronaphthalene	3/30/2016	1	U	750	no
SW-065-MWS	Shallow	4.0-14.0	2-Chlorophenol	3/30/2016	1	U	91	no
SW-065-MWS	Shallow	4.0-14.0	2-Hexanone	3/30/2016	10	U	38	no
SW-065-MWS	Shallow	4.0-14.0	2-Methylnaphthalene	3/30/2016	0.092	B	36	no
SW-065-MWS	Shallow	4.0-14.0	2-Methylphenol	3/30/2016	0.63	J	930	no
SW-065-MWS	Shallow	4.0-14.0	2-Nitroaniline	3/30/2016	2.6	U	190	no
SW-065-MWS	Shallow	4.0-14.0	3&4-Methylphenol(m&p Cresol)	3/30/2016	9.1		930	no
SW-065-MWS	Shallow	4.0-14.0	3,3'-Dichlorobenzidine	3/30/2016	1	U	0.12	no
SW-065-MWS	Shallow	4.0-14.0	4-Chloroaniline	3/30/2016	1	UJ	0.36	no
SW-065-MWS	Shallow	4.0-14.0	4-Methyl-2-pentanone (MIBK)	3/30/2016	10	U	1,200	no
SW-065-MWS	Shallow	4.0-14.0	4-Nitroaniline	3/30/2016	2.6	U	3.8	no
SW-065-MWS	Shallow	4.0-14.0	Acenaphthene	3/30/2016	0.035	B	530	no
SW-065-MWS	Shallow	4.0-14.0	Acenaphthylene	3/30/2016	0.1	U	530	no
SW-065-MWS	Shallow	4.0-14.0	Acetone	3/30/2016	10	R	14,000	no
SW-065-MWS	Shallow	4.0-14.0	Acetophenone	3/30/2016	2.2		1,900	no



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Well	Zone	Screen Interval (feet bgs)	Parameter	Sample Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
SW-065-MWS	Shallow	4.0-14.0	Aluminum	3/30/2016	1140		20,000	no
SW-065-MWS	Shallow	4.0-14.0	Aluminum, Dissolved	3/30/2016	1100		20,000	no
SW-065-MWS	Shallow	4.0-14.0	Anthracene	3/30/2016	0.093	J	1,800	no
SW-065-MWS	Shallow	4.0-14.0	Antimony	3/30/2016	6	U	6	no
SW-065-MWS	Shallow	4.0-14.0	Antimony, Dissolved	3/30/2016	6	U	6	no
SW-065-MWS	Shallow	4.0-14.0	Arsenic	3/30/2016	5.9		10	no
SW-065-MWS	Shallow	4.0-14.0	Arsenic, Dissolved	3/30/2016	7.1		10	no
SW-065-MWS	Shallow	4.0-14.0	Barium	3/30/2016	53.1		2,000	no
SW-065-MWS	Shallow	4.0-14.0	Barium, Dissolved	3/30/2016	53.4		2,000	no
SW-065-MWS	Shallow	4.0-14.0	Benzaldehyde	3/30/2016	1	U	1,900	no
SW13-PZM003	Shallow	4.7-14.7	Benzo[b]fluoranthene	3/28/2016	0.11		0.034	YES
SW14-PZM004	Shallow	3.4-13.4	Benzo[b]fluoranthene	3/31/2016	0.089	J	0.034	YES
SW-065-MWS	Shallow	4.0-14.0	Benzo[a]pyrene	3/30/2016	0.1	U	0.2	no
SW-065-MWS	Shallow	4.0-14.0	Benzo[b]fluoranthene	3/30/2016	0.1	U	0.034	no
SW-065-MWS	Shallow	4.0-14.0	Benzo[g,h,i]perylene	3/30/2016	0.1	U		no
SW-065-MWS	Shallow	4.0-14.0	Benzo[k]fluoranthene	3/30/2016	0.1	U	0.34	no
SW-065-MWS	Shallow	4.0-14.0	Beryllium	3/30/2016	1	U	4	no
SW-065-MWS	Shallow	4.0-14.0	Beryllium, Dissolved	3/30/2016	1	U	4	no
SW-065-MWS	Shallow	4.0-14.0	bis(2-chloroethoxy)methane	3/30/2016	1	U	59	no
SW-065-MWS	Shallow	4.0-14.0	bis(2-Chloroethyl)ether	3/30/2016	1	U	0.014	no
SW-065-MWS	Shallow	4.0-14.0	bis(2-Chloroisopropyl)ether	3/30/2016	1	U	0.36	no
SW-065-MWS	Shallow	4.0-14.0	bis(2-Ethylhexyl)phthalate	3/30/2016	1	U	6	no
SW-065-MWS	Shallow	4.0-14.0	Bromodichloromethane	3/30/2016	1	U	0.13	no
SW-065-MWS	Shallow	4.0-14.0	Bromoform	3/30/2016	1	U	3.3	no
SW-065-MWS	Shallow	4.0-14.0	Bromomethane	3/30/2016	1	U	7.5	no
SW-065-MWS	Shallow	4.0-14.0	Cadmium	3/30/2016	3	U	5	no
SW-065-MWS	Shallow	4.0-14.0	Cadmium, Dissolved	3/30/2016	3	U	5	no
SW-065-MWS	Shallow	4.0-14.0	Caprolactam	3/30/2016	2.6	UJ	9,900	no
SW-065-MWS	Shallow	4.0-14.0	Carbazole	3/30/2016	1	U		no
SW-065-MWS	Shallow	4.0-14.0	Carbon disulfide	3/30/2016	2.1		810	no
SW-065-MWS	Shallow	4.0-14.0	Carbon tetrachloride	3/30/2016	1	U	5	no
SW-065-MWS	Shallow	4.0-14.0	Chlorobenzene	3/30/2016	1	U	100	no
SW-065-MWS	Shallow	4.0-14.0	Chloroethane	3/30/2016	1	U	21,000	no
SW-029-MWS	Shallow	4.1-11.1	Benzo[k]fluoranthene	2/11/2016	1.3	B	0.34	YES
SW-065-MWS	Shallow	4.0-14.0	Chloromethane	3/30/2016	1	U	190	no
SW-065-MWS	Shallow	4.0-14.0	Chromium	3/30/2016	0.89	J	100	no
SW-065-MWS	Shallow	4.0-14.0	Chromium VI	3/30/2016	10	U	0.035	no
SW-065-MWS	Shallow	4.0-14.0	Chromium, Dissolved	3/30/2016	2.7	J	100	no
SW-065-MWS	Shallow	4.0-14.0	Chrysene	3/30/2016	0.1	U	3.4	no
SW-065-MWS	Shallow	4.0-14.0	cis-1,2-Dichloroethene	3/30/2016	1	U	70	no
SW-065-MWS	Shallow	4.0-14.0	cis-1,3-Dichloropropene	3/30/2016	1	U		no
SW-065-MWS	Shallow	4.0-14.0	Cobalt	3/30/2016	1.2	J	6	no
SW-065-MWS	Shallow	4.0-14.0	Cobalt, Dissolved	3/30/2016	1.5	J	6	no
SW-065-MWS	Shallow	4.0-14.0	Copper	3/30/2016	5	U	1,300	no
SW-065-MWS	Shallow	4.0-14.0	Copper, Dissolved	3/30/2016	5	U	1,300	no
SW-065-MWS	Shallow	4.0-14.0	Chloroform	3/30/2016	2.7		0.22	YES
SW-065-MWS	Shallow	4.0-14.0	Cyclohexane	3/30/2016	10	U	13,000	no
SW-065-MWS	Shallow	4.0-14.0	Dibenz[a,h]anthracene	3/30/2016	0.1	U	0.0034	no
SW-065-MWS	Shallow	4.0-14.0	Dibromochloromethane	3/30/2016	1	U	0.17	no
SW-065-MWS	Shallow	4.0-14.0	Dichlorodifluoromethane	3/30/2016	1	U	200	no
SW13-PZM003	Shallow	4.7-14.7	Chloroform	3/28/2016	2.2		0.22	YES
SW-065-MWS	Shallow	4.0-14.0	Diethylphthalate	3/30/2016	1	U	15,000	no
SW-065-MWS	Shallow	4.0-14.0	Di-n-butylphthalate	3/30/2016	1	U	900	no
SW-065-MWS	Shallow	4.0-14.0	Di-n-octylphthalate	3/30/2016	1	U	200	no

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Well	Zone	Screen Interval (feet bgs)	Parameter	Sample Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
SW-065-MWS	Shallow	4.0-14.0	Ethylbenzene	3/30/2016	1	U	700	no
SW-065-MWS	Shallow	4.0-14.0	Fluoranthene	3/30/2016	0.014	J	800	no
SW-065-MWS	Shallow	4.0-14.0	Fluorene	3/30/2016	0.1	U	290	no
SW-065-MWS	Shallow	4.0-14.0	Gasoline Range Organics	3/30/2016	200	U	47	no
SW-065-MWS	Shallow	4.0-14.0	Hexachlorobenzene	3/30/2016	1	U	1	no
SW-065-MWS	Shallow	4.0-14.0	Hexachlorobutadiene	3/30/2016	1	U	0.14	no
SW-065-MWS	Shallow	4.0-14.0	Hexachlorocyclopentadiene	3/30/2016	1	U	50	no
SW-065-MWS	Shallow	4.0-14.0	Hexachloroethane	3/30/2016	1	U	0.33	no
SW-065-MWS	Shallow	4.0-14.0	Indeno[1,2,3-c,d]pyrene	3/30/2016	0.1	U	0.034	no
SW-065-MWS	Shallow	4.0-14.0	Iron	3/30/2016	594		14,000	no
SW-065-MWS	Shallow	4.0-14.0	Iron, Dissolved	3/30/2016	504		14,000	no
SW-065-MWS	Shallow	4.0-14.0	Isophorone	3/30/2016	1	U	78	no
SW-065-MWS	Shallow	4.0-14.0	Isopropylbenzene	3/30/2016	1	U	450	no
SW-065-MWS	Shallow	4.0-14.0	Lead	3/30/2016	5	U	15	no
SW-065-MWS	Shallow	4.0-14.0	Lead, Dissolved	3/30/2016	5	U	15	no
SW-065-MWS	Shallow	4.0-14.0	Manganese	3/30/2016	3.4	J	430	no
SW-065-MWS	Shallow	4.0-14.0	Manganese, Dissolved	3/30/2016	1.7	J	430	no
SW-065-MWS	Shallow	4.0-14.0	Mercury	3/30/2016	0.2	U	2	no
SW-065-MWS	Shallow	4.0-14.0	Mercury, Dissolved	3/30/2016	0.2	U	2	no
SW-065-MWS	Shallow	4.0-14.0	Methyl Acetate	3/30/2016	5	U	20,000	no
SW-065-MWS	Shallow	4.0-14.0	Methyl tert-butyl ether (MTBE)	3/30/2016	1	U	14	no
SW-065-MWS	Shallow	4.0-14.0	Methylene Chloride	3/30/2016	1	U	5	no
SW-029-MWS	Shallow	4.1-11.1	Cyanide	2/11/2016	1,420		200	YES
SW-065-MWS	Shallow	4.0-14.0	Nickel	3/30/2016	1.6	B	390	no
SW-065-MWS	Shallow	4.0-14.0	Nickel, Dissolved	3/30/2016	2.6	B	390	no
SW-065-MWS	Shallow	4.0-14.0	Nitrobenzene	3/30/2016	1	U	0.14	no
SW-065-MWS	Shallow	4.0-14.0	N-Nitroso-di-n-propylamine	3/30/2016	1	U	0.011	no
SW-065-MWS	Shallow	4.0-14.0	N-Nitrosodiphenylamine	3/30/2016	1	U	12	no
SW-065-MWS	Shallow	4.0-14.0	Pentachlorophenol	3/30/2016	2.6	U	1	no
SW-065-MWS	Shallow	4.0-14.0	Phenanthrene	3/30/2016	0.025	B		no
SW-065-MWS	Shallow	4.0-14.0	Phenol	3/30/2016	1	U	5,800	no
SW-065-MWS	Shallow	4.0-14.0	Pyrene	3/30/2016	0.1	U	120	no
SW-065-MWS	Shallow	4.0-14.0	Selenium	3/30/2016	3.1	B	50	no
SW-065-MWS	Shallow	4.0-14.0	Selenium, Dissolved	3/30/2016	5.3	J	50	no
SW-065-MWS	Shallow	4.0-14.0	Silver	3/30/2016	6	U	94	no
SW-065-MWS	Shallow	4.0-14.0	Silver, Dissolved	3/30/2016	6	U	94	no
SW-065-MWS	Shallow	4.0-14.0	Styrene	3/30/2016	1	U	100	no
SW-065-MWS	Shallow	4.0-14.0	Tetrachloroethene	3/30/2016	1	UJ	5	no
SW-065-MWS	Shallow	4.0-14.0	Thallium	3/30/2016	10	U	2	no
SW-065-MWS	Shallow	4.0-14.0	Thallium, Dissolved	3/30/2016	10	U	2	no
SW-065-MWS	Shallow	4.0-14.0	Toluene	3/30/2016	0.59	J	1,000	no
SW-065-MWS	Shallow	4.0-14.0	trans-1,2-Dichloroethene	3/30/2016	1	U	100	no
SW-065-MWS	Shallow	4.0-14.0	trans-1,3-Dichloropropene	3/30/2016	1	U		no
SW-065-MWS	Shallow	4.0-14.0	Trichloroethene	3/30/2016	1	U	5	no
SW-065-MWS	Shallow	4.0-14.0	Trichlorofluoromethane	3/30/2016	1	U	1,100	no
SW-065-MWS	Shallow	4.0-14.0	Vanadium	3/30/2016	2.7	J	86	no
SW-065-MWS	Shallow	4.0-14.0	Vanadium, Dissolved	3/30/2016	2.7	B	86	no
SW-065-MWS	Shallow	4.0-14.0	Vinyl chloride	3/30/2016	1	U	2	no
SW-065-MWS	Shallow	4.0-14.0	Xylenes	3/30/2016	3	U	10,000	no
SW-065-MWS	Shallow	4.0-14.0	Zinc	3/30/2016	2.6	J	6,000	no
SW-065-MWS	Shallow	4.0-14.0	Zinc, Dissolved	3/30/2016	2.5	B	6,000	no
SW13-PZM003	Shallow	4.7-14.7	1,1,1-Trichloroethane	3/28/2016	1	U	200	no
SW13-PZM003	Shallow	4.7-14.7	1,1,2,2-Tetrachloroethane	3/28/2016	1	U	0.076	no
SW13-PZM003	Shallow	4.7-14.7	1,1,2-Trichloro-1,2,2-Trifluoroethane	3/28/2016	50	U	55,000	no

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SW13-PZM003	Shallow	4.7-14.7	1,1,2-Trichloroethane	3/28/2016	1	U	5	no
SW-065-MWS	Shallow	4.0-14.0	Cyanide	3/30/2016	1030		200	YES
SW13-PZM003	Shallow	4.7-14.7	1,1-Dichloroethane	3/28/2016	1	U	2.7	no
SW13-PZM003	Shallow	4.7-14.7	1,1-Dichloroethene	3/28/2016	1	U	7	no
SW13-PZM003	Shallow	4.7-14.7	1,2,3-Trichlorobenzene	3/28/2016	2	U	7	no
SW13-PZM003	Shallow	4.7-14.7	1,2,4,5-Tetrachlorobenzene	3/28/2016	1	U	1.7	no
SW13-PZM003	Shallow	4.7-14.7	1,2,4-Trichlorobenzene	3/28/2016	1	U	70	no
SW13-PZM003	Shallow	4.7-14.7	1,2-Dibromo-3-chloropropane	3/28/2016	5	U	0.2	no
SW13-PZM003	Shallow	4.7-14.7	1,2-Dibromoethane	3/28/2016	1	U	0.0075	no
SW13-PZM003	Shallow	4.7-14.7	1,2-Dichlorobenzene	3/28/2016	1	U	600	no
SW13-PZM003	Shallow	4.7-14.7	1,2-Dichloroethane	3/28/2016	1	U	5	no
SW13-PZM003	Shallow	4.7-14.7	1,2-Dichloroethene (Total)	3/28/2016	2	U	70	no
SW13-PZM003	Shallow	4.7-14.7	1,2-Dichloropropane	3/28/2016	1	U	5	no
SW13-PZM003	Shallow	4.7-14.7	1,3-Dichlorobenzene	3/28/2016	1	U		no
SW13-PZM003	Shallow	4.7-14.7	1,4-Dichlorobenzene	3/28/2016	1	U	75	no
SW13-PZM003	Shallow	4.7-14.7	1,4-Dioxane	3/28/2016	0.14		0.46	no
SW13-PZM003	Shallow	4.7-14.7	2,3,4,6-Tetrachlorophenol	3/28/2016	1	U	240	no
SW13-PZM003	Shallow	4.7-14.7	2,4,5-Trichlorophenol	3/28/2016	2.5	U	1,200	no
SW13-PZM003	Shallow	4.7-14.7	2,4,6-Trichlorophenol	3/28/2016	1	U	4	no
SW13-PZM003	Shallow	4.7-14.7	2,4-Dichlorophenol	3/28/2016	1	U	46	no
SW13-PZM003	Shallow	4.7-14.7	2,4-Dimethylphenol	3/28/2016	1	U	360	no
SW13-PZM003	Shallow	4.7-14.7	2,4-Dinitrophenol	3/28/2016	2.5	U	39	no
SW13-PZM003	Shallow	4.7-14.7	2,4-Dinitrotoluene	3/28/2016	1	U	0.24	no
SW13-PZM003	Shallow	4.7-14.7	2,6-Dinitrotoluene	3/28/2016	1	U	0.048	no
SW13-PZM003	Shallow	4.7-14.7	2-Butanone (MEK)	3/28/2016	10	U	5,600	no
SW13-PZM003	Shallow	4.7-14.7	2-Chloronaphthalene	3/28/2016	1	U	750	no
SW13-PZM003	Shallow	4.7-14.7	2-Chlorophenol	3/28/2016	1	U	91	no
SW13-PZM003	Shallow	4.7-14.7	2-Hexanone	3/28/2016	10	U	38	no
SW13-PZM003	Shallow	4.7-14.7	2-Methylnaphthalene	3/28/2016	12.2		36	no
SW13-PZM003	Shallow	4.7-14.7	2-Methylphenol	3/28/2016	0.43	J	930	no
SW13-PZM003	Shallow	4.7-14.7	2-Nitroaniline	3/28/2016	2.5	U	190	no
SW13-PZM003	Shallow	4.7-14.7	3&4-Methylphenol(m&p Cresol)	3/28/2016	0.8	J	930	no
SW13-PZM003	Shallow	4.7-14.7	3,3'-Dichlorobenzidine	3/28/2016	1	U	0.12	no
SW13-PZM003	Shallow	4.7-14.7	4-Chloroaniline	3/28/2016	1	U	0.36	no
SW13-PZM003	Shallow	4.7-14.7	4-Methyl-2-pentanone (MIBK)	3/28/2016	10	U	1,200	no
SW13-PZM003	Shallow	4.7-14.7	4-Nitroaniline	3/28/2016	2.5	U	3.8	no
SW13-PZM003	Shallow	4.7-14.7	Acenaphthene	3/28/2016	0.64		530	no
SW13-PZM003	Shallow	4.7-14.7	Acenaphthylene	3/28/2016	0.7		530	no
SW13-PZM003	Shallow	4.7-14.7	Acetophenone	3/28/2016	6.2		1,900	no
SW13-PZM003	Shallow	4.7-14.7	Aluminum	3/28/2016	206	J	20,000	no
SW13-PZM003	Shallow	4.7-14.7	Aluminum, Dissolved	3/28/2016	196		20,000	no
SW13-PZM003	Shallow	4.7-14.7	Anthracene	3/28/2016	2.1		1,800	no
SW13-PZM003	Shallow	4.7-14.7	Antimony	3/28/2016	6	U	6	no
SW13-PZM003	Shallow	4.7-14.7	Antimony, Dissolved	3/28/2016	6	U	6	no
SW13-PZM003	Shallow	4.7-14.7	Arsenic	3/28/2016	5	U	10	no
SW13-PZM003	Shallow	4.7-14.7	Arsenic, Dissolved	3/28/2016	5	U	10	no
SW13-PZM003	Shallow	4.7-14.7	Barium	3/28/2016	64.2		2,000	no
SW13-PZM003	Shallow	4.7-14.7	Barium, Dissolved	3/28/2016	65.7		2,000	no
SW13-PZM003	Shallow	4.7-14.7	Benzaldehyde	3/28/2016	1	U	1,900	no
SW-029-MWS	Shallow	4.1-11.1	Diesel Range Organics	2/11/2016	1,810	J	47	YES
SW-030-MWS	Shallow	3.3-13.3	Diesel Range Organics	2/1/2016	214	J	47	YES
SW13-PZM003	Shallow	4.7-14.7	Benzo[a]pyrene	3/28/2016	0.04	J	0.2	no
SW-031-MWS	Shallow	3.5-13.5	Diesel Range Organics	2/1/2016	694	J	47	YES
SW13-PZM003	Shallow	4.7-14.7	Benzo[g,h,i]perylene	3/28/2016	0.1	U		no

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SW13-PZM003	Shallow	4.7-14.7	Benzo[k]fluoranthene	3/28/2016	0.11		0.34	no
SW13-PZM003	Shallow	4.7-14.7	Beryllium	3/28/2016	1	U	4	no
SW13-PZM003	Shallow	4.7-14.7	Beryllium, Dissolved	3/28/2016	1	U	4	no
SW13-PZM003	Shallow	4.7-14.7	bis(2-chloroethoxy)methane	3/28/2016	1	U	59	no
SW13-PZM003	Shallow	4.7-14.7	bis(2-Chloroethyl)ether	3/28/2016	1	U	0.014	no
SW13-PZM003	Shallow	4.7-14.7	bis(2-Chloroisopropyl)ether	3/28/2016	1	U	0.36	no
SW13-PZM003	Shallow	4.7-14.7	bis(2-Ethylhexyl)phthalate	3/28/2016	1	U	6	no
SW13-PZM003	Shallow	4.7-14.7	Bromodichloromethane	3/28/2016	1	U	0.13	no
SW13-PZM003	Shallow	4.7-14.7	Bromoform	3/28/2016	1	U	3.3	no
SW13-PZM003	Shallow	4.7-14.7	Bromomethane	3/28/2016	1	U	7.5	no
SW13-PZM003	Shallow	4.7-14.7	Cadmium	3/28/2016	3	U	5	no
SW13-PZM003	Shallow	4.7-14.7	Cadmium, Dissolved	3/28/2016	3	U	5	no
SW13-PZM003	Shallow	4.7-14.7	Caprolactam	3/28/2016	2.5	U	9,900	no
SW13-PZM003	Shallow	4.7-14.7	Carbazole	3/28/2016	7.4			no
SW13-PZM003	Shallow	4.7-14.7	Carbon disulfide	3/28/2016	1	U	810	no
SW13-PZM003	Shallow	4.7-14.7	Carbon tetrachloride	3/28/2016	1	U	5	no
SW13-PZM003	Shallow	4.7-14.7	Chlorobenzene	3/28/2016	1	U	100	no
SW13-PZM003	Shallow	4.7-14.7	Chloroethane	3/28/2016	1	U	21,000	no
SW-065-MWS	Shallow	4.0-14.0	Diesel Range Organics	3/30/2016	667	J	47	YES
SW13-PZM003	Shallow	4.7-14.7	Chloromethane	3/28/2016	1	U	190	no
SW13-PZM003	Shallow	4.7-14.7	Chromium	3/28/2016	5	U	100	no
SW13-PZM003	Shallow	4.7-14.7	Chromium VI	3/28/2016	10	U	0.035	no
SW13-PZM003	Shallow	4.7-14.7	Chromium, Dissolved	3/28/2016	5	U	100	no
SW13-PZM003	Shallow	4.7-14.7	Chrysene	3/28/2016	0.29		3.4	no
SW13-PZM003	Shallow	4.7-14.7	cis-1,2-Dichloroethene	3/28/2016	1	U	70	no
SW13-PZM003	Shallow	4.7-14.7	cis-1,3-Dichloropropene	3/28/2016	1	U		no
SW13-PZM003	Shallow	4.7-14.7	Cobalt	3/28/2016	5	U	6	no
SW13-PZM003	Shallow	4.7-14.7	Cobalt, Dissolved	3/28/2016	5	U	6	no
SW13-PZM003	Shallow	4.7-14.7	Copper	3/28/2016	5	U	1,300	no
SW13-PZM003	Shallow	4.7-14.7	Copper, Dissolved	3/28/2016	5	U	1,300	no
SW13-PZM003	Shallow	4.7-14.7	Cyanide	3/28/2016	9.9	J	200	no
SW13-PZM003	Shallow	4.7-14.7	Cyclohexane	3/28/2016	10	U	13,000	no
SW13-PZM003	Shallow	4.7-14.7	Dibenz[a,h]anthracene	3/28/2016	0.1	U	0.0034	no
SW13-PZM003	Shallow	4.7-14.7	Dibromochloromethane	3/28/2016	1	U	0.17	no
SW13-PZM003	Shallow	4.7-14.7	Dichlorodifluoromethane	3/28/2016	1	U	200	no
SW13-PZM003	Shallow	4.7-14.7	Diesel Range Organics	3/28/2016	539	J	47	YES
SW13-PZM003	Shallow	4.7-14.7	Diethylphthalate	3/28/2016	1	U	15,000	no
SW13-PZM003	Shallow	4.7-14.7	Di-n-butylphthalate	3/28/2016	1	U	900	no
SW13-PZM003	Shallow	4.7-14.7	Di-n-octylphthalate	3/28/2016	1	U	200	no
SW13-PZM003	Shallow	4.7-14.7	Ethylbenzene	3/28/2016	2		700	no
SW13-PZM003	Shallow	4.7-14.7	Fluoranthene	3/28/2016	3.5		800	no
SW13-PZM003	Shallow	4.7-14.7	Fluorene	3/28/2016	2.5		290	no
SW13-PZM025	Intermediate	36-39	Diesel Range Organics	2/19/2016	49.4	J	47	YES
SW13-PZM003	Shallow	4.7-14.7	Hexachlorobenzene	3/28/2016	1	U	1	no
SW13-PZM003	Shallow	4.7-14.7	Hexachlorobutadiene	3/28/2016	1	U	0.14	no
SW13-PZM003	Shallow	4.7-14.7	Hexachlorocyclopentadiene	3/28/2016	1	U	50	no
SW13-PZM003	Shallow	4.7-14.7	Hexachloroethane	3/28/2016	1	U	0.33	no
SW13-PZM003	Shallow	4.7-14.7	Indeno[1,2,3-c,d]pyrene	3/28/2016	0.1	U	0.034	no
SW13-PZM003	Shallow	4.7-14.7	Iron	3/28/2016	14.6	J	14,000	no
SW13-PZM003	Shallow	4.7-14.7	Iron, Dissolved	3/28/2016	70	U	14,000	no
SW13-PZM003	Shallow	4.7-14.7	Isophorone	3/28/2016	1	U	78	no
SW13-PZM003	Shallow	4.7-14.7	Isopropylbenzene	3/28/2016	0.23	J	450	no
SW13-PZM003	Shallow	4.7-14.7	Lead	3/28/2016	5	U	15	no
SW13-PZM003	Shallow	4.7-14.7	Lead, Dissolved	3/28/2016	5	U	15	no

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SW13-PZM003	Shallow	4.7-14.7	Manganese	3/28/2016	4.3	B	430	no
SW13-PZM003	Shallow	4.7-14.7	Manganese, Dissolved	3/28/2016	5	U	430	no
SW13-PZM003	Shallow	4.7-14.7	Mercury	3/28/2016	0.2	U	2	no
SW13-PZM003	Shallow	4.7-14.7	Mercury, Dissolved	3/28/2016	0.2	U	2	no
SW13-PZM003	Shallow	4.7-14.7	Methyl Acetate	3/28/2016	5	U	20,000	no
SW13-PZM003	Shallow	4.7-14.7	Methyl tert-butyl ether (MTBE)	3/28/2016	1	U	14	no
SW13-PZM003	Shallow	4.7-14.7	Methylene Chloride	3/28/2016	1	U	5	no
SW13-PZM111	Lower	116-125	Diesel Range Organics	12/9/2015	134	J	47	YES
SW13-PZM003	Shallow	4.7-14.7	Nickel	3/28/2016	10	U	390	no
SW13-PZM003	Shallow	4.7-14.7	Nickel, Dissolved	3/28/2016	10	U	390	no
SW13-PZM003	Shallow	4.7-14.7	Nitrobenzene	3/28/2016	1	U	0.14	no
SW13-PZM003	Shallow	4.7-14.7	N-Nitroso-di-n-propylamine	3/28/2016	1	U	0.011	no
SW13-PZM003	Shallow	4.7-14.7	N-Nitrosodiphenylamine	3/28/2016	1	U	12	no
SW13-PZM003	Shallow	4.7-14.7	Pentachlorophenol	3/28/2016	2.5	U	1	no
SW13-PZM003	Shallow	4.7-14.7	Phenanthrene	3/28/2016	9.7			no
SW13-PZM003	Shallow	4.7-14.7	Phenol	3/28/2016	0.27	J	5,800	no
SW13-PZM003	Shallow	4.7-14.7	Pyrene	3/28/2016	2.4		120	no
SW13-PZM003	Shallow	4.7-14.7	Selenium	3/28/2016	6	J	50	no
SW13-PZM003	Shallow	4.7-14.7	Selenium, Dissolved	3/28/2016	8	U	50	no
SW13-PZM003	Shallow	4.7-14.7	Silver	3/28/2016	6	U	94	no
SW13-PZM003	Shallow	4.7-14.7	Silver, Dissolved	3/28/2016	6	U	94	no
SW13-PZM003	Shallow	4.7-14.7	Styrene	3/28/2016	1	U	100	no
SW13-PZM003	Shallow	4.7-14.7	Tetrachloroethene	3/28/2016	1	U	5	no
SW13-PZM003	Shallow	4.7-14.7	Thallium	3/28/2016	10	U	2	no
SW13-PZM003	Shallow	4.7-14.7	Thallium, Dissolved	3/28/2016	10	U	2	no
SW13-PZM003	Shallow	4.7-14.7	Toluene	3/28/2016	35.6		1,000	no
SW13-PZM003	Shallow	4.7-14.7	trans-1,2-Dichloroethene	3/28/2016	1	U	100	no
SW13-PZM003	Shallow	4.7-14.7	trans-1,3-Dichloropropene	3/28/2016	1	U		no
SW13-PZM003	Shallow	4.7-14.7	Trichloroethene	3/28/2016	1	U	5	no
SW13-PZM003	Shallow	4.7-14.7	Trichlorofluoromethane	3/28/2016	1	U	1,100	no
SW13-PZM003	Shallow	4.7-14.7	Vanadium	3/28/2016	0.85	B	86	no
SW13-PZM003	Shallow	4.7-14.7	Vanadium, Dissolved	3/28/2016	0.85	B	86	no
SW13-PZM003	Shallow	4.7-14.7	Vinyl chloride	3/28/2016	1	U	2	no
SW13-PZM003	Shallow	4.7-14.7	Xylenes	3/28/2016	47.7		10,000	no
SW13-PZM003	Shallow	4.7-14.7	Zinc	3/28/2016	0.72	B	6,000	no
SW13-PZM003	Shallow	4.7-14.7	Zinc, Dissolved	3/28/2016	1.3	B	6,000	no
SW13-PZM025	Intermediate	36-39	1,1,1-Trichloroethane	2/19/2016	1	U	200	no
SW13-PZM025	Intermediate	36-39	1,1,2,2-Tetrachloroethane	2/19/2016	1	U	0.076	no
SW13-PZM025	Intermediate	36-39	1,1,2-Trichloro-1,2,2-Trifluoroethane	2/19/2016	50	U	55,000	no
SW13-PZM025	Intermediate	36-39	1,1,2-Trichloroethane	2/19/2016	1	U	5	no
SW13-PZM025	Intermediate	36-39	1,1-Biphenyl	2/19/2016	1	U	0.83	no
SW13-PZM025	Intermediate	36-39	1,1-Dichloroethane	2/19/2016	1	U	2.7	no
SW13-PZM025	Intermediate	36-39	1,1-Dichloroethene	2/19/2016	1	U	7	no
SW13-PZM025	Intermediate	36-39	1,2,3-Trichlorobenzene	2/19/2016	2	U	7	no
SW13-PZM025	Intermediate	36-39	1,2,4,5-Tetrachlorobenzene	2/19/2016	1	U	1.7	no
SW13-PZM025	Intermediate	36-39	1,2,4-Trichlorobenzene	2/19/2016	1	U	70	no
SW13-PZM025	Intermediate	36-39	1,2-Dibromo-3-chloropropane	2/19/2016	5	U	0.2	no
SW13-PZM025	Intermediate	36-39	1,2-Dibromoethane	2/19/2016	1	U	0.0075	no
SW13-PZM025	Intermediate	36-39	1,2-Dichlorobenzene	2/19/2016	1	U	600	no
SW13-PZM025	Intermediate	36-39	1,2-Dichloroethane	2/19/2016	1	U	5	no
SW13-PZM025	Intermediate	36-39	1,2-Dichloroethene (Total)	2/19/2016	2	U	70	no
SW13-PZM025	Intermediate	36-39	1,2-Dichloropropane	2/19/2016	1	U	5	no
SW13-PZM025	Intermediate	36-39	1,3-Dichlorobenzene	2/19/2016	1	U		no
SW13-PZM025	Intermediate	36-39	1,4-Dichlorobenzene	2/19/2016	1	U	75	no

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SW13-PZM025	Intermediate	36-39	1,4-Dioxane	2/19/2016	0.1	U	0.46	no
SW13-PZM025	Intermediate	36-39	2,3,4,6-Tetrachlorophenol	2/19/2016	1	U	240	no
SW13-PZM025	Intermediate	36-39	2,4,5-Trichlorophenol	2/19/2016	2.5	U	1,200	no
SW13-PZM025	Intermediate	36-39	2,4,6-Trichlorophenol	2/19/2016	1	U	4	no
SW13-PZM025	Intermediate	36-39	2,4-Dichlorophenol	2/19/2016	1	U	46	no
SW13-PZM025	Intermediate	36-39	2,4-Dimethylphenol	2/19/2016	1	U	360	no
SW13-PZM025	Intermediate	36-39	2,4-Dinitrophenol	2/19/2016	2.5	U	39	no
SW13-PZM025	Intermediate	36-39	2,4-Dinitrotoluene	2/19/2016	1	U	0.24	no
SW13-PZM025	Intermediate	36-39	2,6-Dinitrotoluene	2/19/2016	1	U	0.048	no
SW13-PZM025	Intermediate	36-39	2-Butanone (MEK)	2/19/2016	10	U	5,600	no
SW13-PZM025	Intermediate	36-39	2-Chloronaphthalene	2/19/2016	1	U	750	no
SW13-PZM025	Intermediate	36-39	2-Chlorophenol	2/19/2016	1	U	91	no
SW13-PZM025	Intermediate	36-39	2-Hexanone	2/19/2016	10	U	38	no
SW13-PZM025	Intermediate	36-39	2-Methylnaphthalene	2/19/2016	0.1	U	36	no
SW13-PZM025	Intermediate	36-39	2-Methylphenol	2/19/2016	1	U	930	no
SW13-PZM025	Intermediate	36-39	2-Nitroaniline	2/19/2016	2.5	U	190	no
SW13-PZM025	Intermediate	36-39	3&4-Methylphenol(m&p Cresol)	2/19/2016	2	U	930	no
SW13-PZM025	Intermediate	36-39	3,3'-Dichlorobenzidine	2/19/2016	1	UJ	0.12	no
SW13-PZM025	Intermediate	36-39	4-Chloroaniline	2/19/2016	1	U	0.36	no
SW13-PZM025	Intermediate	36-39	4-Methyl-2-pentanone (MIBK)	2/19/2016	10	U	1,200	no
SW13-PZM025	Intermediate	36-39	4-Nitroaniline	2/19/2016	2.5	U	3.8	no
SW13-PZM025	Intermediate	36-39	Acenaphthene	2/19/2016	0.1	U	530	no
SW13-PZM025	Intermediate	36-39	Acenaphthylene	2/19/2016	0.1	U	530	no
SW13-PZM025	Intermediate	36-39	Acetone	2/19/2016	10	U	14,000	no
SW13-PZM025	Intermediate	36-39	Acetophenone	2/19/2016	1	U	1,900	no
SW13-PZM025	Intermediate	36-39	Aluminum	2/19/2016	23.7	J	20,000	no
SW13-PZM025	Intermediate	36-39	Aluminum, Dissolved	2/19/2016	23.6	B	20,000	no
SW13-PZM025	Intermediate	36-39	Anthracene	2/19/2016	0.1	U	1,800	no
SW13-PZM025	Intermediate	36-39	Antimony	2/19/2016	6	U	6	no
SW13-PZM025	Intermediate	36-39	Antimony, Dissolved	2/19/2016	6	U	6	no
SW13-PZM025	Intermediate	36-39	Arsenic	2/19/2016	7.7		10	no
SW13-PZM025	Intermediate	36-39	Arsenic, Dissolved	2/19/2016	7.8		10	no
SW13-PZM025	Intermediate	36-39	Barium	2/19/2016	123		2,000	no
SW13-PZM025	Intermediate	36-39	Barium, Dissolved	2/19/2016	121		2,000	no
SW13-PZM025	Intermediate	36-39	Benzaldehyde	2/19/2016	1	U	1,900	no
SW13-PZM025	Intermediate	36-39	Benzene	2/19/2016	1	U	5	no
SW13-PZM025	Intermediate	36-39	Benzo[a]anthracene	2/19/2016	0.1	U	0.012	no
SW13-PZM025	Intermediate	36-39	Benzo[a]pyrene	2/19/2016	0.1	U	0.2	no
SW13-PZM025	Intermediate	36-39	Benzo[b]fluoranthene	2/19/2016	0.1	U	0.034	no
SW13-PZM025	Intermediate	36-39	Benzo[g,h,i]perylene	2/19/2016	0.1	U		no
SW13-PZM025	Intermediate	36-39	Benzo[k]fluoranthene	2/19/2016	0.1	U	0.34	no
SW13-PZM025	Intermediate	36-39	Beryllium	2/19/2016	1	U	4	no
SW13-PZM025	Intermediate	36-39	Beryllium, Dissolved	2/19/2016	1	U	4	no
SW13-PZM025	Intermediate	36-39	bis(2-chloroethoxy)methane	2/19/2016	1	U	59	no
SW13-PZM025	Intermediate	36-39	bis(2-Chloroethyl)ether	2/19/2016	1	U	0.014	no
SW13-PZM025	Intermediate	36-39	bis(2-Chloroisopropyl)ether	2/19/2016	1	U	0.36	no
SW13-PZM025	Intermediate	36-39	bis(2-Ethylhexyl)phthalate	2/19/2016	1	UJ	6	no
SW13-PZM025	Intermediate	36-39	Bromodichloromethane	2/19/2016	1	U	0.13	no
SW13-PZM025	Intermediate	36-39	Bromoform	2/19/2016	1	U	3.3	no
SW13-PZM025	Intermediate	36-39	Bromomethane	2/19/2016	1	U	7.5	no
SW13-PZM025	Intermediate	36-39	Cadmium	2/19/2016	0.81	J	5	no
SW13-PZM025	Intermediate	36-39	Cadmium, Dissolved	2/19/2016	0.62	B	5	no
SW13-PZM025	Intermediate	36-39	Caprolactam	2/19/2016	2.5	U	9,900	no
SW13-PZM025	Intermediate	36-39	Carbazole	2/19/2016	1	U		no

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SW13-PZM025	Intermediate	36-39	Carbon disulfide	2/19/2016	1	U	810	no
SW13-PZM025	Intermediate	36-39	Carbon tetrachloride	2/19/2016	1	U	5	no
SW13-PZM025	Intermediate	36-39	Chlorobenzene	2/19/2016	1	U	100	no
SW13-PZM025	Intermediate	36-39	Chloroethane	2/19/2016	1	U	21,000	no
SW13-PZM025	Intermediate	36-39	Chloroform	2/19/2016	1	U	0.22	no
SW13-PZM025	Intermediate	36-39	Chloromethane	2/19/2016	1	U	190	no
SW13-PZM025	Intermediate	36-39	Chromium	2/19/2016	0.98	B	100	no
SW13-PZM025	Intermediate	36-39	Chromium VI	2/19/2016	10	U	0.035	no
SW13-PZM025	Intermediate	36-39	Chromium, Dissolved	2/19/2016	5	U	100	no
SW13-PZM025	Intermediate	36-39	Chrysene	2/19/2016	0.1	U	3.4	no
SW13-PZM025	Intermediate	36-39	cis-1,2-Dichloroethene	2/19/2016	1	U	70	no
SW13-PZM025	Intermediate	36-39	cis-1,3-Dichloropropene	2/19/2016	1	U		no
SW13-PZM025	Intermediate	36-39	Cobalt	2/19/2016	2.5	B	6	no
SW13-PZM025	Intermediate	36-39	Cobalt, Dissolved	2/19/2016	2.5	B	6	no
SW13-PZM025	Intermediate	36-39	Copper	2/19/2016	2.1	J	1,300	no
SW13-PZM025	Intermediate	36-39	Copper, Dissolved	2/19/2016	1.6	J	1,300	no
SW13-PZM025	Intermediate	36-39	Cyanide	2/19/2016	10	U	200	no
SW13-PZM025	Intermediate	36-39	Cyclohexane	2/19/2016	10	U	13,000	no
SW13-PZM025	Intermediate	36-39	Dibenz[a,h]anthracene	2/19/2016	0.1	U	0.0034	no
SW13-PZM025	Intermediate	36-39	Dibromochloromethane	2/19/2016	1	U	0.17	no
SW13-PZM025	Intermediate	36-39	Dichlorodifluoromethane	2/19/2016	1	U	200	no
SW14-PZM004	Shallow	3.4-13.4	Diesel Range Organics	3/31/2016	522	J	47	YES
SW13-PZM025	Intermediate	36-39	Diethylphthalate	2/19/2016	1	U	15,000	no
SW13-PZM025	Intermediate	36-39	Di-n-butylphthalate	2/19/2016	0.1	J	900	no
SW13-PZM025	Intermediate	36-39	Di-n-octylphthalate	2/19/2016	1	UJ	200	no
SW13-PZM025	Intermediate	36-39	Ethylbenzene	2/19/2016	1	U	700	no
SW13-PZM025	Intermediate	36-39	Fluoranthene	2/19/2016	0.1	U	800	no
SW13-PZM025	Intermediate	36-39	Fluorene	2/19/2016	0.1	U	290	no
SW13-PZM025	Intermediate	36-39	Gasoline Range Organics	2/19/2016	200	U	47	no
SW13-PZM025	Intermediate	36-39	Hexachlorobenzene	2/19/2016	1	U	1	no
SW13-PZM025	Intermediate	36-39	Hexachlorobutadiene	2/19/2016	1	U	0.14	no
SW13-PZM025	Intermediate	36-39	Hexachlorocyclopentadiene	2/19/2016	1	U	50	no
SW13-PZM025	Intermediate	36-39	Hexachloroethane	2/19/2016	1	U	0.33	no
SW13-PZM025	Intermediate	36-39	Indeno[1,2,3-c,d]pyrene	2/19/2016	0.1	U	0.034	no
SW13-PZM003	Shallow	4.7-14.7	Gasoline Range Organics	3/28/2016	267		47	YES
SW13-PZM025	Intermediate	36-39	Iron	2/19/2016	37,800		14,000	YES
SW13-PZM025	Intermediate	36-39	Isophorone	2/19/2016	1	U	78	no
SW13-PZM025	Intermediate	36-39	Isopropylbenzene	2/19/2016	1	U	450	no
SW13-PZM025	Intermediate	36-39	Lead	2/19/2016	5	U	15	no
SW13-PZM025	Intermediate	36-39	Lead, Dissolved	2/19/2016	5	U	15	no
SW13-PZM111	Lower	116-125	Iron	12/9/2015	33,700		14,000	YES
SW13-PZM025	Intermediate	36-39	Iron, Dissolved	2/19/2016	36,800		14,000	YES
SW13-PZM025	Intermediate	36-39	Mercury	2/19/2016	0.2	U	2	no
SW13-PZM025	Intermediate	36-39	Mercury, Dissolved	2/19/2016	0.2	U	2	no
SW13-PZM025	Intermediate	36-39	Methyl Acetate	2/19/2016	5	U	20,000	no
SW13-PZM025	Intermediate	36-39	Methyl tert-butyl ether (MTBE)	2/19/2016	1	U	14	no
SW13-PZM025	Intermediate	36-39	Methylene Chloride	2/19/2016	1	U	5	no
SW13-PZM025	Intermediate	36-39	Naphthalene	2/19/2016	0.1	U	0.17	no
SW13-PZM025	Intermediate	36-39	Nickel	2/19/2016	3.3	B	390	no
SW13-PZM025	Intermediate	36-39	Nickel, Dissolved	2/19/2016	3.3	B	390	no
SW13-PZM025	Intermediate	36-39	Nitrobenzene	2/19/2016	1	U	0.14	no
SW13-PZM025	Intermediate	36-39	N-Nitroso-di-n-propylamine	2/19/2016	1	U	0.011	no
SW13-PZM025	Intermediate	36-39	N-Nitrosodiphenylamine	2/19/2016	1	U	12	no
SW13-PZM025	Intermediate	36-39	Pentachlorophenol	2/19/2016	2.5	U	1	no

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SW13-PZM025	Intermediate	36-39	Phenanthrene	2/19/2016	0.017	J		no
SW13-PZM025	Intermediate	36-39	Phenol	2/19/2016	1	U	5,800	no
SW13-PZM025	Intermediate	36-39	Pyrene	2/19/2016	0.1	U	120	no
SW13-PZM025	Intermediate	36-39	Selenium	2/19/2016	8	U	50	no
SW13-PZM025	Intermediate	36-39	Selenium, Dissolved	2/19/2016	8	U	50	no
SW13-PZM025	Intermediate	36-39	Silver	2/19/2016	6	U	94	no
SW13-PZM025	Intermediate	36-39	Silver, Dissolved	2/19/2016	6	U	94	no
SW13-PZM025	Intermediate	36-39	Styrene	2/19/2016	1	U	100	no
SW13-PZM025	Intermediate	36-39	Tetrachloroethene	2/19/2016	1	U	5	no
SW13-PZM025	Intermediate	36-39	Thallium	2/19/2016	10	U	2	no
SW13-PZM025	Intermediate	36-39	Thallium, Dissolved	2/19/2016	10	U	2	no
SW13-PZM025	Intermediate	36-39	Toluene	2/19/2016	1	U	1,000	no
SW13-PZM025	Intermediate	36-39	trans-1,2-Dichloroethene	2/19/2016	1	U	100	no
SW13-PZM025	Intermediate	36-39	trans-1,3-Dichloropropene	2/19/2016	1	U		no
SW13-PZM025	Intermediate	36-39	Trichloroethene	2/19/2016	1	U	5	no
SW13-PZM025	Intermediate	36-39	Trichlorofluoromethane	2/19/2016	1	U	1,100	no
SW13-PZM025	Intermediate	36-39	Vanadium	2/19/2016	5	U	86	no
SW13-PZM025	Intermediate	36-39	Vanadium, Dissolved	2/19/2016	5	U	86	no
SW13-PZM025	Intermediate	36-39	Vinyl chloride	2/19/2016	1	U	2	no
SW13-PZM025	Intermediate	36-39	Xylenes	2/19/2016	3	U	10,000	no
SW13-PZM025	Intermediate	36-39	Zinc	2/19/2016	10	U	6,000	no
SW13-PZM025	Intermediate	36-39	Zinc, Dissolved	2/19/2016	1.8	B	6,000	no
SW13-PZM111	Lower	116-125	1,1,1-Trichloroethane	12/9/2015	1	U	200	no
SW13-PZM111	Lower	116-125	1,1,2,2-Tetrachloroethane	12/9/2015	1	U	0.076	no
SW13-PZM111	Lower	116-125	1,1,2-Trichloro-1,2,2-Trifluoroethane	12/9/2015	50	U	55,000	no
SW13-PZM111	Lower	116-125	1,1,2-Trichloroethane	12/9/2015	1	U	5	no
SW13-PZM111	Lower	116-125	1,1-Biphenyl	12/9/2015	1	U	0.83	no
SW13-PZM111	Lower	116-125	1,1-Dichloroethane	12/9/2015	1	U	2.7	no
SW13-PZM111	Lower	116-125	1,1-Dichloroethene	12/9/2015	1	U	7	no
SW13-PZM111	Lower	116-125	1,2,3-Trichlorobenzene	12/9/2015	2	U	7	no
SW13-PZM111	Lower	116-125	1,2,4,5-Tetrachlorobenzene	12/9/2015	1	U	1.7	no
SW13-PZM111	Lower	116-125	1,2,4-Trichlorobenzene	12/9/2015	1	U	70	no
SW13-PZM111	Lower	116-125	1,2-Dibromo-3-chloropropane	12/9/2015	5	U	0.2	no
SW13-PZM111	Lower	116-125	1,2-Dibromoethane	12/9/2015	1	U	0.0075	no
SW13-PZM111	Lower	116-125	1,2-Dichlorobenzene	12/9/2015	1	U	600	no
SW13-PZM111	Lower	116-125	1,2-Dichloroethane	12/9/2015	1	U	5	no
SW13-PZM111	Lower	116-125	1,2-Dichloroethene (Total)	12/9/2015	2	U	70	no
SW13-PZM111	Lower	116-125	1,2-Dichloropropane	12/9/2015	1	U	5	no
SW13-PZM111	Lower	116-125	1,3-Dichlorobenzene	12/9/2015	1	U		no
SW13-PZM111	Lower	116-125	1,4-Dichlorobenzene	12/9/2015	1	U	75	no
SW13-PZM111	Lower	116-125	1,4-Dioxane	12/9/2015	0.1	U	0.46	no
SW13-PZM111	Lower	116-125	2,3,4,6-Tetrachlorophenol	12/9/2015	1	U	240	no
SW13-PZM111	Lower	116-125	2,4,5-Trichlorophenol	12/9/2015	2.5	U	1,200	no
SW13-PZM111	Lower	116-125	2,4,6-Trichlorophenol	12/9/2015	1	U	4	no
SW13-PZM111	Lower	116-125	2,4-Dichlorophenol	12/9/2015	1	U	46	no
SW13-PZM111	Lower	116-125	2,4-Dimethylphenol	12/9/2015	1	U	360	no
SW13-PZM111	Lower	116-125	2,4-Dinitrophenol	12/9/2015	2.5	U	39	no
SW13-PZM111	Lower	116-125	2,4-Dinitrotoluene	12/9/2015	1	U	0.24	no
SW13-PZM111	Lower	116-125	2,6-Dinitrotoluene	12/9/2015	1	U	0.048	no
SW13-PZM111	Lower	116-125	2-Butanone (MEK)	12/9/2015	10	U	5,600	no
SW13-PZM111	Lower	116-125	2-Chloronaphthalene	12/9/2015	1	U	750	no
SW13-PZM111	Lower	116-125	2-Chlorophenol	12/9/2015	1	U	91	no
SW13-PZM111	Lower	116-125	2-Hexanone	12/9/2015	10	U	38	no
SW13-PZM111	Lower	116-125	2-Methylnaphthalene	12/9/2015	0.1		36	no



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SW13-PZM111	Lower	116-125	2-Methylphenol	12/9/2015	1	U	930	no
SW13-PZM111	Lower	116-125	2-Nitroaniline	12/9/2015	2.5	U	190	no
SW13-PZM111	Lower	116-125	3&4-Methylphenol(m&p Cresol)	12/9/2015	2	U	930	no
SW13-PZM111	Lower	116-125	4-Chloroaniline	12/9/2015	1	UJ	0.36	no
SW13-PZM111	Lower	116-125	4-Methyl-2-pentanone (MIBK)	12/9/2015	10	U	1,200	no
SW13-PZM111	Lower	116-125	4-Nitroaniline	12/9/2015	2.5	UJ	3.8	no
SW13-PZM111	Lower	116-125	Acenaphthene	12/9/2015	0.071	J	530	no
SW13-PZM111	Lower	116-125	Acenaphthylene	12/9/2015	0.1	U	530	no
SW13-PZM111	Lower	116-125	Acetophenone	12/9/2015	1	U	1,900	no
SW13-PZM111	Lower	116-125	Aluminum	12/9/2015	1,280		20,000	no
SW13-PZM111	Lower	116-125	Aluminum, Dissolved	12/9/2015	24.5	B	20,000	no
SW13-PZM111	Lower	116-125	Anthracene	12/9/2015	0.027	J	1,800	no
SW13-PZM111	Lower	116-125	Antimony	12/9/2015	6	U	6	no
SW13-PZM111	Lower	116-125	Antimony, Dissolved	12/9/2015	6	U	6	no
SW13-PZM111	Lower	116-125	Arsenic	12/9/2015	5	U	10	no
SW13-PZM111	Lower	116-125	Arsenic, Dissolved	12/9/2015	5	U	10	no
SW13-PZM111	Lower	116-125	Barium	12/9/2015	70.7		2,000	no
SW13-PZM111	Lower	116-125	Barium, Dissolved	12/9/2015	52.5		2,000	no
SW13-PZM111	Lower	116-125	Benzaldehyde	12/9/2015	1	U	1,900	no
SW13-PZM111	Lower	116-125	Benzene	12/9/2015	1	U	5	no
SW13-PZM111	Lower	116-125	Benzo[a]anthracene	12/9/2015	0.1	U	0.012	no
SW13-PZM111	Lower	116-125	Benzo[a]pyrene	12/9/2015	0.1	U	0.2	no
SW13-PZM111	Lower	116-125	Benzo[b]fluoranthene	12/9/2015	0.1	U	0.034	no
SW13-PZM111	Lower	116-125	Benzo[g,h,i]perylene	12/9/2015	0.1	U		no
SW13-PZM111	Lower	116-125	Benzo[k]fluoranthene	12/9/2015	0.1	U	0.34	no
SW13-PZM111	Lower	116-125	Beryllium	12/9/2015	1		4	no
SW13-PZM111	Lower	116-125	Beryllium, Dissolved	12/9/2015	0.63	B	4	no
SW13-PZM111	Lower	116-125	bis(2-chloroethoxy)methane	12/9/2015	1	U	59	no
SW13-PZM111	Lower	116-125	bis(2-Chloroethyl)ether	12/9/2015	1	U	0.014	no
SW13-PZM111	Lower	116-125	bis(2-Chloroisopropyl)ether	12/9/2015	1	U	0.36	no
SW13-PZM111	Lower	116-125	bis(2-Ethylhexyl)phthalate	12/9/2015	1.1		6	no
SW13-PZM111	Lower	116-125	Bromodichloromethane	12/9/2015	1	U	0.13	no
SW13-PZM111	Lower	116-125	Bromoform	12/9/2015	1	U	3.3	no
SW13-PZM111	Lower	116-125	Bromomethane	12/9/2015	1	U	7.5	no
SW13-PZM111	Lower	116-125	Cadmium	12/9/2015	3	U	5	no
SW13-PZM111	Lower	116-125	Cadmium, Dissolved	12/9/2015	0.66	J	5	no
SW13-PZM111	Lower	116-125	Caprolactam	12/9/2015	0.24	J	9,900	no
SW13-PZM111	Lower	116-125	Carbazole	12/9/2015	1	U		no
SW13-PZM111	Lower	116-125	Carbon disulfide	12/9/2015	1	U	810	no
SW13-PZM111	Lower	116-125	Carbon tetrachloride	12/9/2015	1	U	5	no
SW13-PZM111	Lower	116-125	Chlorobenzene	12/9/2015	1	U	100	no
SW13-PZM111	Lower	116-125	Chloroethane	12/9/2015	1	U	21,000	no
SW13-PZM111	Lower	116-125	Chloroform	12/9/2015	1	U	0.22	no
SW13-PZM111	Lower	116-125	Chloromethane	12/9/2015	1	UJ	190	no
SW13-PZM111	Lower	116-125	Chromium	12/9/2015	17.4		100	no
SW13-PZM111	Lower	116-125	Chromium VI	12/9/2015	10	U	0.035	no
SW13-PZM111	Lower	116-125	Chromium, Dissolved	12/9/2015	0.91	B	100	no
SW13-PZM111	Lower	116-125	Chrysene	12/9/2015	0.1	U	3.4	no
SW13-PZM111	Lower	116-125	cis-1,2-Dichloroethene	12/9/2015	1	U	70	no
SW13-PZM111	Lower	116-125	cis-1,3-Dichloropropene	12/9/2015	1	U		no
SW13-PZM111	Lower	116-125	Cobalt	12/9/2015	3	J	6	no
SW13-PZM111	Lower	116-125	Cobalt, Dissolved	12/9/2015	1.7	B	6	no
SW13-PZM111	Lower	116-125	Copper	12/9/2015	11.5		1,300	no
SW13-PZM111	Lower	116-125	Copper, Dissolved	12/9/2015	2.5	B	1,300	no

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SW13-PZM111	Lower	116-125	Cyanide	12/9/2015	10	U	200	no
SW13-PZM111	Lower	116-125	Cyclohexane	12/9/2015	10	U	13,000	no
SW13-PZM111	Lower	116-125	Dibenz[a,h]anthracene	12/9/2015	0.1	U	0.0034	no
SW13-PZM111	Lower	116-125	Dibromochloromethane	12/9/2015	1	U	0.17	no
SW13-PZM111	Lower	116-125	Dichlorodifluoromethane	12/9/2015	1	U	200	no
SW13-PZM111	Lower	116-125	Iron, Dissolved	12/9/2015	21,000		14,000	YES
SW13-PZM111	Lower	116-125	Diethylphthalate	12/9/2015	1	U	15,000	no
SW13-PZM111	Lower	116-125	Di-n-butylphthalate	12/9/2015	1	U	900	no
SW13-PZM111	Lower	116-125	Di-n-octylphthalate	12/9/2015	1	U	200	no
SW13-PZM111	Lower	116-125	Ethylbenzene	12/9/2015	1	U	700	no
SW13-PZM111	Lower	116-125	Fluoranthene	12/9/2015	0.04	J	800	no
SW13-PZM111	Lower	116-125	Fluorene	12/9/2015	0.082	J	290	no
SW13-PZM111	Lower	116-125	Gasoline Range Organics	12/9/2015	200	U	47	no
SW13-PZM111	Lower	116-125	Hexachlorobenzene	12/9/2015	1	U	1	no
SW13-PZM111	Lower	116-125	Hexachlorobutadiene	12/9/2015	1	U	0.14	no
SW13-PZM111	Lower	116-125	Hexachlorocyclopentadiene	12/9/2015	1	U	50	no
SW13-PZM111	Lower	116-125	Hexachloroethene	12/9/2015	1	U	0.33	no
SW13-PZM111	Lower	116-125	Indeno[1,2,3-c,d]pyrene	12/9/2015	0.1	U	0.034	no
SW13-PZM025	Intermediate	36-39	Manganese	2/19/2016	1,100		430	YES
SW13-PZM111	Lower	116-125	Manganese	12/9/2015	1,340		430	YES
SW13-PZM111	Lower	116-125	Isophorone	12/9/2015	1	U	78	no
SW13-PZM111	Lower	116-125	Isopropylbenzene	12/9/2015	1	U	450	no
SW13-PZM111	Lower	116-125	Lead	12/9/2015	5	U	15	no
SW13-PZM111	Lower	116-125	Lead, Dissolved	12/9/2015	5	U	15	no
SW13-PZM025	Intermediate	36-39	Manganese, Dissolved	2/19/2016	1,060		430	YES
SW13-PZM111	Lower	116-125	Manganese, Dissolved	12/9/2015	1,180	J	430	YES
SW13-PZM111	Lower	116-125	Mercury	12/9/2015	0.06	B	2	no
SW13-PZM111	Lower	116-125	Mercury, Dissolved	12/9/2015	0.2	U	2	no
SW13-PZM111	Lower	116-125	Methyl tert-butyl ether (MTBE)	12/9/2015	1	U	14	no
SW13-PZM111	Lower	116-125	Methylene Chloride	12/9/2015	1	U	5	no
SW13-PZM111	Lower	116-125	Naphthalene	12/9/2015	0.14		0.17	no
SW13-PZM111	Lower	116-125	Nickel	12/9/2015	12.6	J	390	no
SW13-PZM111	Lower	116-125	Nickel, Dissolved	12/9/2015	9	B	390	no
SW13-PZM111	Lower	116-125	Nitrobenzene	12/9/2015	1	U	0.14	no
SW13-PZM111	Lower	116-125	N-Nitroso-di-n-propylamine	12/9/2015	1	U	0.011	no
SW13-PZM111	Lower	116-125	N-Nitrosodiphenylamine	12/9/2015	1	U	12	no
SW13-PZM111	Lower	116-125	Pentachlorophenol	12/9/2015	2.5	U	1	no
SW13-PZM111	Lower	116-125	Phenanthrene	12/9/2015	0.19			no
SW13-PZM111	Lower	116-125	Phenol	12/9/2015	1	U	5,800	no
SW13-PZM111	Lower	116-125	Pyrene	12/9/2015	0.029	J	120	no
SW13-PZM111	Lower	116-125	Selenium	12/9/2015	8	U	50	no
SW13-PZM111	Lower	116-125	Selenium, Dissolved	12/9/2015	8	U	50	no
SW13-PZM111	Lower	116-125	Silver	12/9/2015	6	U	94	no
SW13-PZM111	Lower	116-125	Silver, Dissolved	12/9/2015	6	U	94	no
SW13-PZM111	Lower	116-125	Styrene	12/9/2015	1	U	100	no
SW13-PZM111	Lower	116-125	Tetrachloroethene	12/9/2015	1	U	5	no
SW-029-MWS	Shallow	4.1-11.1	Naphthalene	2/11/2016	162		0.17	YES
SW13-PZM111	Lower	116-125	Thallium, Dissolved	12/9/2015	10	U	2	no
SW13-PZM111	Lower	116-125	Toluene	12/9/2015	1	U	1,000	no
SW13-PZM111	Lower	116-125	trans-1,2-Dichloroethene	12/9/2015	1	U	100	no
SW13-PZM111	Lower	116-125	trans-1,3-Dichloropropene	12/9/2015	1	U		no
SW13-PZM111	Lower	116-125	Trichloroethene	12/9/2015	1	U	5	no
SW13-PZM111	Lower	116-125	Trichlorofluoromethane	12/9/2015	1	U	1,100	no
SW13-PZM111	Lower	116-125	Vanadium	12/9/2015	36.6		86	no

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SW13-PZM111	Lower	116-125	Vanadium, Dissolved	12/9/2015	1.3	B	86	no
SW13-PZM111	Lower	116-125	Vinyl chloride	12/9/2015	1	U	2	no
SW13-PZM111	Lower	116-125	Xylenes	12/9/2015	3	U	10,000	no
SW13-PZM111	Lower	116-125	Zinc	12/9/2015	48.1		6,000	no
SW13-PZM111	Lower	116-125	Zinc, Dissolved	12/9/2015	24.6	J	6,000	no
SW14-PZM004	Shallow	3.4-13.4	1,1,1-Trichloroethane	3/31/2016	1	U	200	no
SW14-PZM004	Shallow	3.4-13.4	1,1,2,2-Tetrachloroethane	3/31/2016	1	U	0.076	no
SW14-PZM004	Shallow	3.4-13.4	1,1,2-Trichloro-1,2,2-Trifluoroethane	3/31/2016	50	U	55,000	no
SW14-PZM004	Shallow	3.4-13.4	1,1,2-Trichloroethane	3/31/2016	1	U	5	no
SW-065-MWS	Shallow	4.0-14.0	Naphthalene	3/30/2016	0.96		0.17	YES
SW14-PZM004	Shallow	3.4-13.4	1,1-Dichloroethane	3/31/2016	1	U	2.7	no
SW14-PZM004	Shallow	3.4-13.4	1,1-Dichloroethene	3/31/2016	1	U	7	no
SW14-PZM004	Shallow	3.4-13.4	1,2,3-Trichlorobenzene	3/31/2016	2	U	7	no
SW14-PZM004	Shallow	3.4-13.4	1,2,4,5-Tetrachlorobenzene	3/31/2016	1	U	1.7	no
SW14-PZM004	Shallow	3.4-13.4	1,2,4-Trichlorobenzene	3/31/2016	1	U	70	no
SW14-PZM004	Shallow	3.4-13.4	1,2-Dibromo-3-chloropropane	3/31/2016	5	U	0.2	no
SW14-PZM004	Shallow	3.4-13.4	1,2-Dibromoethane	3/31/2016	1	U	0.0075	no
SW14-PZM004	Shallow	3.4-13.4	1,2-Dichlorobenzene	3/31/2016	1	U	600	no
SW14-PZM004	Shallow	3.4-13.4	1,2-Dichloroethane	3/31/2016	1	U	5	no
SW14-PZM004	Shallow	3.4-13.4	1,2-Dichloroethene (Total)	3/31/2016	2	U	70	no
SW14-PZM004	Shallow	3.4-13.4	1,2-Dichloropropane	3/31/2016	1	U	5	no
SW14-PZM004	Shallow	3.4-13.4	1,3-Dichlorobenzene	3/31/2016	1	U		no
SW14-PZM004	Shallow	3.4-13.4	1,4-Dichlorobenzene	3/31/2016	1	U	75	no
SW14-PZM004	Shallow	3.4-13.4	1,4-Dioxane	3/31/2016	0.27		0.46	no
SW14-PZM004	Shallow	3.4-13.4	2,3,4,6-Tetrachlorophenol	3/31/2016	1	U	240	no
SW14-PZM004	Shallow	3.4-13.4	2,4,5-Trichlorophenol	3/31/2016	2.6	U	1,200	no
SW14-PZM004	Shallow	3.4-13.4	2,4,6-Trichlorophenol	3/31/2016	1	U	4	no
SW14-PZM004	Shallow	3.4-13.4	2,4-Dichlorophenol	3/31/2016	1	U	46	no
SW14-PZM004	Shallow	3.4-13.4	2,4-Dimethylphenol	3/31/2016	1	U	360	no
SW14-PZM004	Shallow	3.4-13.4	2,4-Dinitrophenol	3/31/2016	2.6	U	39	no
SW14-PZM004	Shallow	3.4-13.4	2,4-Dinitrotoluene	3/31/2016	1	U	0.24	no
SW14-PZM004	Shallow	3.4-13.4	2,6-Dinitrotoluene	3/31/2016	1	U	0.048	no
SW14-PZM004	Shallow	3.4-13.4	2-Butanone (MEK)	3/31/2016	10	U	5,600	no
SW14-PZM004	Shallow	3.4-13.4	2-Chloronaphthalene	3/31/2016	1	U	750	no
SW14-PZM004	Shallow	3.4-13.4	2-Chlorophenol	3/31/2016	1	U	91	no
SW14-PZM004	Shallow	3.4-13.4	2-Hexanone	3/31/2016	10	U	38	no
SW14-PZM004	Shallow	3.4-13.4	2-Methylnaphthalene	3/31/2016	12.8	J	36	no
SW14-PZM004	Shallow	3.4-13.4	2-Methylphenol	3/31/2016	1	U	930	no
SW14-PZM004	Shallow	3.4-13.4	2-Nitroaniline	3/31/2016	2.6	UJ	190	no
SW14-PZM004	Shallow	3.4-13.4	3&4-Methylphenol(m&p Cresol)	3/31/2016	2.1	U	930	no
SW14-PZM004	Shallow	3.4-13.4	4-Chloroaniline	3/31/2016	1	UJ	0.36	no
SW14-PZM004	Shallow	3.4-13.4	4-Methyl-2-pentanone (MIBK)	3/31/2016	10	U	1,200	no
SW14-PZM004	Shallow	3.4-13.4	4-Nitroaniline	3/31/2016	2.6	U	3.8	no
SW14-PZM004	Shallow	3.4-13.4	Acenaphthene	3/31/2016	25.7		530	no
SW14-PZM004	Shallow	3.4-13.4	Acenaphthylene	3/31/2016	0.61		530	no
SW14-PZM004	Shallow	3.4-13.4	Acetophenone	3/31/2016	1	U	1,900	no
SW14-PZM004	Shallow	3.4-13.4	Aluminum	3/31/2016	1,740		20,000	no
SW14-PZM004	Shallow	3.4-13.4	Aluminum, Dissolved	3/31/2016	1,850		20,000	no
SW14-PZM004	Shallow	3.4-13.4	Anthracene	3/31/2016	3.4		1,800	no
SW14-PZM004	Shallow	3.4-13.4	Antimony	3/31/2016	6	U	6	no
SW14-PZM004	Shallow	3.4-13.4	Antimony, Dissolved	3/31/2016	6	U	6	no
SW14-PZM004	Shallow	3.4-13.4	Arsenic	3/31/2016	3.3	J	10	no
SW14-PZM004	Shallow	3.4-13.4	Arsenic, Dissolved	3/31/2016	4.7	J	10	no
SW14-PZM004	Shallow	3.4-13.4	Barium	3/31/2016	162		2,000	no

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SW14-PZM004	Shallow	3.4-13.4	Barium, Dissolved	3/31/2016	164		2,000	no
SW14-PZM004	Shallow	3.4-13.4	Benzaldehyde	3/31/2016	1	UJ	1,900	no
SW14-PZM004	Shallow	3.4-13.4	Benzene	3/31/2016	1	U	5	no
SW13-PZM003	Shallow	4.7-14.7	Naphthalene	3/28/2016	169		0.17	YES
SW14-PZM004	Shallow	3.4-13.4	Benzo[a]pyrene	3/31/2016	0.035	J	0.2	no
SW14-PZM004	Shallow	3.4-13.4	Naphthalene	3/31/2016	49.5		0.17	YES
SW14-PZM004	Shallow	3.4-13.4	Benzo[g,h,i]perylene	3/31/2016	0.1	U		no
SW14-PZM004	Shallow	3.4-13.4	Benzo[k]fluoranthene	3/31/2016	0.088	J	0.34	no
SW14-PZM004	Shallow	3.4-13.4	Beryllium	3/31/2016	1	U	4	no
SW14-PZM004	Shallow	3.4-13.4	Beryllium, Dissolved	3/31/2016	1	U	4	no
SW14-PZM004	Shallow	3.4-13.4	bis(2-chloroethoxy)methane	3/31/2016	1	U	59	no
SW14-PZM004	Shallow	3.4-13.4	bis(2-Chloroethyl)ether	3/31/2016	1	U	0.014	no
SW14-PZM004	Shallow	3.4-13.4	bis(2-Chloroisopropyl)ether	3/31/2016	1	U	0.36	no
SW14-PZM004	Shallow	3.4-13.4	bis(2-Ethylhexyl)phthalate	3/31/2016	1	U	6	no
SW14-PZM004	Shallow	3.4-13.4	Bromodichloromethane	3/31/2016	1	U	0.13	no
SW14-PZM004	Shallow	3.4-13.4	Bromoform	3/31/2016	1	U	3.3	no
SW14-PZM004	Shallow	3.4-13.4	Bromomethane	3/31/2016	1	U	7.5	no
SW14-PZM004	Shallow	3.4-13.4	Cadmium	3/31/2016	3	U	5	no
SW14-PZM004	Shallow	3.4-13.4	Cadmium, Dissolved	3/31/2016	3	U	5	no
SW14-PZM004	Shallow	3.4-13.4	Caprolactam	3/31/2016	2.6	UJ	9,900	no
SW14-PZM004	Shallow	3.4-13.4	Carbazole	3/31/2016	12.1			no
SW14-PZM004	Shallow	3.4-13.4	Carbon disulfide	3/31/2016	1	U	810	no
SW14-PZM004	Shallow	3.4-13.4	Carbon tetrachloride	3/31/2016	1	U	5	no
SW14-PZM004	Shallow	3.4-13.4	Chlorobenzene	3/31/2016	1	U	100	no
SW14-PZM004	Shallow	3.4-13.4	Chloroethane	3/31/2016	1	U	21,000	no
SW14-PZM004	Shallow	3.4-13.4	Chloroform	3/31/2016	1	U	0.22	no
SW14-PZM004	Shallow	3.4-13.4	Chloromethane	3/31/2016	1	U	190	no
SW14-PZM004	Shallow	3.4-13.4	Chromium	3/31/2016	1.1	J	100	no
SW14-PZM004	Shallow	3.4-13.4	Chromium VI	3/31/2016	10	U	0.035	no
SW14-PZM004	Shallow	3.4-13.4	Chromium, Dissolved	3/31/2016	1.7	B	100	no
SW14-PZM004	Shallow	3.4-13.4	Chrysene	3/31/2016	0.23		3.4	no
SW14-PZM004	Shallow	3.4-13.4	cis-1,2-Dichloroethene	3/31/2016	1	U	70	no
SW14-PZM004	Shallow	3.4-13.4	cis-1,3-Dichloropropene	3/31/2016	1	U		no
SW14-PZM004	Shallow	3.4-13.4	Cobalt	3/31/2016	5	U	6	no
SW14-PZM004	Shallow	3.4-13.4	Cobalt, Dissolved	3/31/2016	5	U	6	no
SW14-PZM004	Shallow	3.4-13.4	Copper	3/31/2016	2.1	B	1,300	no
SW14-PZM004	Shallow	3.4-13.4	Copper, Dissolved	3/31/2016	5	U	1,300	no
SW14-PZM004	Shallow	3.4-13.4	Cyanide	3/31/2016	10	U	200	no
SW14-PZM004	Shallow	3.4-13.4	Cyclohexane	3/31/2016	10	U	13,000	no
SW14-PZM004	Shallow	3.4-13.4	Dibenz[a,h]anthracene	3/31/2016	0.1	U	0.0034	no
SW14-PZM004	Shallow	3.4-13.4	Dibromochloromethane	3/31/2016	1	U	0.17	no
SW14-PZM004	Shallow	3.4-13.4	Dichlorodifluoromethane	3/31/2016	1	U	200	no
SW13-PZM111	Lower	116-125	Thallium	12/9/2015	3.4	B	2	YES
SW14-PZM004	Shallow	3.4-13.4	Diethylphthalate	3/31/2016	1	U	15,000	no
SW14-PZM004	Shallow	3.4-13.4	Di-n-butylphthalate	3/31/2016	1	U	900	no
SW14-PZM004	Shallow	3.4-13.4	Di-n-octylphthalate	3/31/2016	1	U	200	no
SW14-PZM004	Shallow	3.4-13.4	Ethylbenzene	3/31/2016	1	U	700	no
SW14-PZM004	Shallow	3.4-13.4	Fluoranthene	3/31/2016	6.8	J	800	no
SW14-PZM004	Shallow	3.4-13.4	Fluorene	3/31/2016	11.4		290	no
SW14-PZM004	Shallow	3.4-13.4	Gasoline Range Organics	3/31/2016	200	UJ	47	no
SW14-PZM004	Shallow	3.4-13.4	Hexachlorobenzene	3/31/2016	1	U	1	no
SW14-PZM004	Shallow	3.4-13.4	Hexachlorobutadiene	3/31/2016	1	U	0.14	no
SW14-PZM004	Shallow	3.4-13.4	Hexachlorocyclopentadiene	3/31/2016	1	U	50	no
SW14-PZM004	Shallow	3.4-13.4	Hexachloroethane	3/31/2016	1	U	0.33	no

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SW14-PZM004	Shallow	3.4-13.4	Indeno[1,2,3-c,d]pyrene	3/31/2016	0.1	U	0.034	no
SW14-PZM004	Shallow	3.4-13.4	Iron	3/31/2016	41.1	B	14,000	no
SW14-PZM004	Shallow	3.4-13.4	Iron, Dissolved	3/31/2016	15.6	B	14,000	no
SW14-PZM004	Shallow	3.4-13.4	Isophorone	3/31/2016	1	U	78	no
SW14-PZM004	Shallow	3.4-13.4	Isopropylbenzene	3/31/2016	1	U	450	no
SW14-PZM004	Shallow	3.4-13.4	Lead	3/31/2016	5	U	15	no
SW14-PZM004	Shallow	3.4-13.4	Lead, Dissolved	3/31/2016	5	U	15	no
SW14-PZM004	Shallow	3.4-13.4	Manganese	3/31/2016	1.2	J	430	no
SW14-PZM004	Shallow	3.4-13.4	Manganese, Dissolved	3/31/2016	5	U	430	no
SW14-PZM004	Shallow	3.4-13.4	Mercury	3/31/2016	0.2	U	2	no
SW14-PZM004	Shallow	3.4-13.4	Mercury, Dissolved	3/31/2016	0.2	U	2	no
SW14-PZM004	Shallow	3.4-13.4	Methyl Acetate	3/31/2016	5	U	20,000	no
SW14-PZM004	Shallow	3.4-13.4	Methyl tert-butyl ether (MTBE)	3/31/2016	1	U	14	no
SW14-PZM004	Shallow	3.4-13.4	Methylene Chloride	3/31/2016	1	U	5	no
SW14-PZM004	Shallow	3.4-13.4	Thallium	3/31/2016	5.9	J	2	YES
SW14-PZM004	Shallow	3.4-13.4	Nickel	3/31/2016	3	J	390	no
SW14-PZM004	Shallow	3.4-13.4	Nickel, Dissolved	3/31/2016	3.1	B	390	no
SW14-PZM004	Shallow	3.4-13.4	Nitrobenzene	3/31/2016	1	U	0.14	no
SW14-PZM004	Shallow	3.4-13.4	N-Nitroso-di-n-propylamine	3/31/2016	1	U	0.011	no
SW14-PZM004	Shallow	3.4-13.4	N-Nitrosodiphenylamine	3/31/2016	1	U	12	no
SW14-PZM004	Shallow	3.4-13.4	Pentachlorophenol	3/31/2016	2.6	U	1	no
SW14-PZM004	Shallow	3.4-13.4	Phenanthrene	3/31/2016	27.5			no
SW14-PZM004	Shallow	3.4-13.4	Phenol	3/31/2016	0.26	J	5,800	no
SW14-PZM004	Shallow	3.4-13.4	Pyrene	3/31/2016	4.2	J	120	no
SW14-PZM004	Shallow	3.4-13.4	Selenium	3/31/2016	8	U	50	no
SW14-PZM004	Shallow	3.4-13.4	Selenium, Dissolved	3/31/2016	8	U	50	no
SW14-PZM004	Shallow	3.4-13.4	Silver	3/31/2016	6	U	94	no
SW14-PZM004	Shallow	3.4-13.4	Silver, Dissolved	3/31/2016	6	U	94	no
SW14-PZM004	Shallow	3.4-13.4	Styrene	3/31/2016	1	U	100	no
SW14-PZM004	Shallow	3.4-13.4	Tetrachloroethene	3/31/2016	1	UJ	5	no
SW-030-MWS	Shallow	3.3-13.3	Thallium, Dissolved	2/1/2016	4.8	J	2	YES
SW14-PZM004	Shallow	3.4-13.4	Thallium, Dissolved	3/31/2016	10	U	2	no
SW14-PZM004	Shallow	3.4-13.4	Toluene	3/31/2016	1	U	1,000	no
SW14-PZM004	Shallow	3.4-13.4	trans-1,2-Dichloroethene	3/31/2016	1	U	100	no
SW14-PZM004	Shallow	3.4-13.4	trans-1,3-Dichloropropene	3/31/2016	1	U		no
SW14-PZM004	Shallow	3.4-13.4	Trichloroethene	3/31/2016	1	U	5	no
SW14-PZM004	Shallow	3.4-13.4	Trichlorofluoromethane	3/31/2016	1	U	1,100	no
SW14-PZM004	Shallow	3.4-13.4	Vanadium	3/31/2016	118		86	YES
SW14-PZM004	Shallow	3.4-13.4	Vanadium, Dissolved	3/31/2016	125		86	YES
SW14-PZM004	Shallow	3.4-13.4	Vinyl chloride	3/31/2016	1	U	2	no
SW14-PZM004	Shallow	3.4-13.4	Xylenes	3/31/2016	3	U	10,000	no
SW14-PZM004	Shallow	3.4-13.4	Zinc	3/31/2016	10	U	6,000	no
SW14-PZM004	Shallow	3.4-13.4	Zinc, Dissolved	3/31/2016	0.64	J	6,000	no

Yellow highlight indicates PAL exceedance

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## **APPENDIX D**

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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
Shipyards Apparent Impoundment and Sparrows Point Shipyards	REC 25, Finding 277/Finding 285	DCC Figure	The Shipyards Impoundment is located north of the coal slip and coal yard and extends north to an area just east of the Shipyards' 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 Shipyards, 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 Shipyards 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')
<b>Total</b>				<b>72</b>				

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, 69 proposed**

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

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, Dissoved 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, Dissoved 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, Dissoved 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, Dissoved 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, Dissoved 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, Dissoved hexavalent chromium, Total cyanide, DRO/GRO, O&G
			<b>Total</b>	9				

†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
<b>Total</b>		4				

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

*Sub-Slab: 1 sample collected per 20,000 ft<sup>2</sup>, with a minimum of 3 per building*

Maintenance Shop (74,962 ft<sup>2</sup>) = **4 samples required, 4 proposed**

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## **APPENDIX E**

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# Health and Safety Plan

## Area B: Parcel B18 Tradepoint Atlantic Sparrows Point, Maryland

Prepared for:  
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September 2016

ARM Project 150300M-14

Respectfully submitted,



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## **1.0 INTRODUCTION**

This Health and Safety Plan (HASP) has been prepared by ARM Group Inc. (ARM) to address personnel health and safety requirements for employees of ARM and its subcontractors to complete a Phase II investigation on a portion of the Tradepoint Atlantic property that has been designated as Parcel B18. The on-site activities may include the following: installation of soil borings, collection of soil samples, collection of sub-slab soil gas samples, and installation and gauging/purging of temporary piezometers. ARM will comply with industry-standard health and safety protocol and Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120 to prevent human exposure to volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), petroleum hydrocarbons, polychlorinated biphenyls (PCB) and metals that may be present in site soil and groundwater.

## 2.0 GENERAL INFORMATION

### 2.1 Site Description

Parcel B18, which is comprised of 37 acres of the approximately 3,100-acre former plant property, is located off of Sparrows Point Boulevard in Sparrows Point, Maryland. Parcel B18 is one of several parcels that make up a larger area, known as Area B, of the Tradepoint Atlantic facility. Area B and its parcels are shown on **Figure 1**.

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

### 2.2 Site Hazards

The following is a general description of the potential site hazards.

#### Chemical Hazards:

- VOCs, SVOCs, PCBs, petroleum hydrocarbons, and metals potentially present in soil and groundwater.

#### Explosive Hazards:

- VOC and petroleum hydrocarbon vapors in boreholes, piezometers and collection containers.

#### Physical Hazards:

- Slipping/tripping in work area
- Stress/fatigue from heat or cold temperatures
- Traffic/Railway Activity
- Driving on steep slopes and/or off-road conditions
- Insect and animal bites
- Hand tools

#### Mechanical/Electrical Hazards:

- Underground utilities
- Heavy equipment (Geoprobe)
- Locomotive/Railcar and Maintenance Vehicles (within 10 feet of track edge)
- Noise from heavy equipment operations
- Power tools

### **2.3 Utilities**

Prior to initiating any subsurface investigations, all underground utilities will be cleared using the Miss Utility system. Additionally, EnviroAnalytics Group (EAG) will clear each proposed boring with utility personnel currently working on the property. The ARM staff will be responsible for avoiding any above ground utilities while operating vehicles on the site.

### **2.4 Waste Management**

A small quantity of investigation derived waste (IDW) material will be generated as a result of the planned site work. These wastes could include decontamination fluids, soil cuttings, personal protective equipment (PPE) and disposable sampling equipment. All IDW will be containerized in steel 55-gallon drums for on-site treatment or off-site disposal, pending the receipt of analytical results. Specific procedures associated with the management of the IDW have been established in SOP 005, attached in Appendix A of the EPA approved Quality Assurance Project Plan (QAPP).

### **2.5 Site Controls and Security**

It is the responsibility of ARM staff to keep unauthorized personnel away from the work areas during site work. All equipment used at the site must be secured or taken off-site. Subsurface intrusions should be covered to reduce any hazard that may be posed. Traffic cones, caution tape, physical barriers, or other such means as necessary shall be used to ensure that no unauthorized work area entry occurs.

### **3.0 OPERATING PROCEDURES**

#### **3.1 Air Monitoring**

Due to the nature of the site activities and materials potentially present at the site, no vapor hazards are expected. If discernable odors are noted in the breathing zone, then work will be temporarily suspended and air monitoring will be initiated using a PID or explosive gas indicator. If sustained vapor concentrations are measured at or above action levels in the breathing zone, work will immediately cease until such time as appropriate action is established. This action may require the upgrade of PPE or reevaluation of the need to proceed.

#### **3.2 Personnel Protection**

Personnel health and safety protection shall follow the guidelines provided by this HASP. Modifications to the HASP may be made by the field supervisor with the approval of the ARM Project Manager on a day-to-day basis as conditions change, based on existing conditions. Any necessary revisions must be fully documented by the field supervisor to include the specifics and rationalizations for the change.

It is anticipated that a modified Level D of personal protection will be appropriate for the anticipated site activities. PPE associated with this designated level of protection (Level D), as established by the USEPA, is listed in a later section. The PPE listed for this level of protection should be available to all personnel.

PPE will be stored in a clean, dry environment prior to its usage. Disposable equipment shall remain, in as much as possible, its original manufacturer's packaging to ensure its integrity. PPE that is assigned to a specific end user is subject to inspection by the supervisor at any time.

##### ***3.2.1 Determination of Level of Protection Requirements***

The appropriate level of personnel protection must be established on the basis of ambient air monitoring responses. Air monitoring action levels should be consistent with the primary compounds of concern as listed in Table 3-1 (below). Appropriate action should be taken if total organic vapor air concentrations are sustained at a concentration equal to or greater than the PEL listed on Table 3-1.

**Table 3-1**

<b>Substance</b>	<b>CAS #</b>	<b>OSHA PEL (ppm)</b>	<b>IDLH (ppm)</b>
Benzene	71-43-2	10	500
Toluene	108-88-3	200	500
Ethyl benzene	100-41-4	100	800
Xylenes	1330-20-7	100	900
Naphthalene	91-20-3	10	250
Tetrachloroethylene	127-18-4	100	150
Trichloroethylene	79-01-6	100	1,000

Notes: ppm = parts per million  
PEL = Permissible Exposure Limit  
IDLH = Immediately Dangerous to Life or Health

This criterion will be applicable to all activities unless specific protection requirement for a certain task are addressed separately. As previously stated, it is anticipated that a modified Level D will be appropriate for the anticipated site activities; which requires a regular worker uniform, steel-toed safety shoes, hardhat, safety glasses and long pants. Level D will be considered the minimum protection level for all work on-site.

Respiratory protection against dust must also be considered during site work. The usage of dust respirators (high efficiency particulate air [HEPA] filters) or NIOSH P100 filter paired with a half-mask respirator will be determined by site conditions and judgment of the field supervisor. Sprinklers may be used to control dust during work activities.

### **3.2.2 Dermal Protection**

In general, dermal protection levels will correspond with the respiratory protection level in use during an activity as described in other sections. For most activities on the site, Level D dermal protection will be adequate. When work tasks are such that a higher level of personal protection is required, dermal protection may be upgraded to coated Tyvek (Saranex) or chemical-resistant rain suit or Tyvek. This determination will be made by the ARM Field Supervisor as required.

Chemical and abrasion-resistant outer gloves and inner chemical-resistant disposable gloves would be required in the work zone to provide adequate protection of hands and assist in preventing transfer of contaminants. As much of the investigation may require handling of possibly contaminated equipment, groundwater, or soil, chemical-resistant gloves should be required for all on-site work with these materials. Various operations, which require dexterity and do not necessitate the abrasion-resistant feature of outer gloves, could be performed with the inner gloves only, at the direction of the ARM Field Supervisor.

### **3.2.3 Eye Protection**

Since many volatile contaminants are capable of penetrating skin tissues, the eyes provide a potential route of entry into the body. Typically, volatile organic vapors will be detected in the air-monitoring program. Dust and air-borne particulates will be monitored visually and nuisance dust standards will be applied. If exceeded, dust masks will be donned. Eye protection, beyond the use of safety glasses, must correspond to the respiratory protection level.

### **3.3 Task-Related Personnel Protection**

At a minimum, all workers are required to wear long pants, steel toed shoes and a sleeved shirt at all times. Additional PPE will be required on a task-specific basis.

#### **3.3.1 Installation of Geoprobe Soil Borings and Piezometers, Installation of Sub-Slab Soil Gas Points, Soil Logging and Soil Sampling Activities**

All personnel should wear the following:

- Long pants and sleeved shirt/vest (high visibility)
- Steel toe safety boots
- Safety glasses with side shields
- Hearing protection
- Chemical resistant gloves

#### **3.3.2 Groundwater Sampling**

All personnel should wear the following:

- Long pants and sleeved shirt/vest (high visibility)
- Steel toe safety boots
- Safety glasses with side shields
- Chemical resistant gloves

### **3.4 Explosion Prevention**

Due to the potential presence of flammable materials at the site, the following safety guidelines must be followed to prevent the possibility of explosion:

- a. All monitoring equipment will be intrinsically safe or explosion-proof, if used in areas of possible explosive atmospheres.
- b. A fire extinguisher, first-aid kit, and an eye wash station will be located at the site within a short distance of site work.

- c. Any compressed gas cylinders or bottles will be stored safely as required by the OSHA regulations. In addition, metal barriers must be provided and installed between oxygen and acetylene bottles, extending above the height of the regulators. At the end of each work shift, regulators shall be removed and replaced with protective caps.
- d. No explosives, whatsoever, shall be used or stored on the premises.
- e. All cleaning fluids or solvents must be stored and transported in OSHA-approved safety containers.
- f. Propane, butane, or other heavier-than-air gases shall not be transported onto or used on-site unless prior approval is obtained in writing from the Project Manager and the Facility Operator.



## **4.0 DECONTAMINATION PROCEDURES**

Decontamination procedures will be used on some field tasks, but not all, completed at the site. All decontamination operations may be performed at the sampling location unless the level of PPE is upgraded. If the level of PPE is upgraded, all decontamination operations will be performed in a central decontamination area and supervised by the ARM Field Supervisor. If necessary, a decontamination corridor will be set up adjacent to the area and equipped with brushes, plastic bags, and drum storage. Disposable outerwear and contaminated disposable equipment will be collected for future disposal. The ARM Field Supervisor would be required to inspect PPE and clothing to determine if decontamination procedures were sufficient to allow passage into the staging area.

The following decontamination facilities, as a minimum, will be provided in the staging area:

- a. Hand washing facilities
- b. First-aid kit
- c. Eye wash station
- d. Fire extinguisher

Proper on-site decontamination procedures, the use of disposable outer clothing, and field wash of hands and face as soon as possible after leaving the decontamination corridor could effectively minimize the opportunity for skin contact with contaminants.

### **4.1 Personnel Decontamination Procedures**

Decontamination procedures should be as follows:

Level D decontamination will consist of:

1. Potable water wash and potable water rinse of boots and outer gloves (if worn).
2. Drum all visibly impacted disposable clothing.
3. Field wash of hands and face.

### **4.2 Equipment Decontamination**

All equipment decontamination will be completed in accordance with the procedures referenced in QAPP Worksheet 21—Field SOPs, SOP No. 016 Equipment Decontamination. The decontamination procedures that will be used during the course of this investigation include Decontamination Area (Section 3.1 of the SOP), Decontamination of Sampling Equipment

(Section 3.5), Decontamination of Measurement Devices & Monitoring Equipment (Section 3.7), Decontamination of Subsurface Drilling Equipment (Section 3.8), and Document and Record Keeping (Section 5).

Level D personnel protection is required during equipment decontamination.

## 5.0 EMERGENCY CONTINGENCY INFORMATION

Pertinent emergency telephone numbers are listed in Table 5-1. This information must be reviewed by and provided to all personnel prior to site entry.

<b>Table 5-1 Emergency Telephone Numbers</b>	
<b>Facility/Title</b>	<b>Telephone Number</b>
Fire and Police	911
Ambulance	911
James Calenda, EnviroAnalytics Group	(314) 620-3056
Eric Magdar, ARM Manager	Office: (410) 290-7775 Cell: (301) 529-7140
Hospital – Johns Hopkins Bayview	(410) 550-0350

In the event of a fire or explosion, the site will be evacuated immediately and the appropriate emergency response groups notified. In the event of an environmental incident caused by spill or spread of contamination, personnel will attempt to contain the spread of contamination, if possible.

In the event of a personnel injury, emergency first aid would be applied on site by ARM as deemed necessary. The victim should be transported to the local medical facility if needed. The map to the hospital is provided below.

## **Hospital Route From Tradepoint Atlantic**

Johns Hopkins Bayview  
4940 Eastern Avenue  
Baltimore, MD  
(410) 550-0350

1. Start out going East on 7<sup>th</sup> Street.
2. Turn LEFT onto Sparrow Point Road.
3. Travel 1.4 miles and continue onto North Point Boulevard.
4. Travel 0.9 miles and turn slight right to merge onto I-695 North/Baltimore Beltway toward Essex.
5. Travel 3.4 miles and take EXIT 40 for MD-151/N. Pt. Blvd. N toward MD-150/East. Blvd W/Baltimore.
6. Travel 0.5 miles and merge onto MD-151 N/North Point Blvd.
7. Travel 2.0 miles and turn LEFT onto Kane Street.
8. Travel 0.2 miles and turn slight right onto E. Lombard Street.
9. Travel 1.2 miles and turn left onto Bayview Blvd.
10. Make a left at the emergency room of the hospital

