

# Phase II Investigation Work Plan

## Area B: Parcel B14 Tradepoint Atlantic Sparrows Point, Maryland

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Respectfully Submitted,



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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 Investigation on a portion of the Tradepoint Atlantic property that has been designated as Area B: Parcel B14 (the Site). Parcel B14 is comprised of 60.4 acres of the approximately 3,100-acre former plant property located as shown on **Figure 1**.

Site characterization of Parcel B14 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 the Maryland Department of the Environment (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 B14 is also part of the acreage that remains subject to the requirements of the Multimedia Consent Decree between Bethlehem Steel Corporation, the United States Environmental Protection Agency (USEPA), and the MDE (effective October 8, 1997) as documented in correspondence received from the USEPA on September 12, 2014.

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. The plan shows that 100% of the total area within Parcel B14 may ultimately be proposed for development and associated environmental capping (paving, landscaping, etc.) as appropriate.

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, soil samples will be collected for analysis from a total of 31 locations to assess the presence or absence of soil contamination in Parcel B14. A total of five groundwater samples will be collected from permanent monitoring wells located within, or directly adjacent to, Parcel

B14 to assess the presence or absence of groundwater contamination. Two additional wells in the vicinity of Parcel B14 were already sampled during the Parcel B8 Phase II Investigation. Following the receipt of analytical data, a Human Health Screening Level Risk Assessment (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 3% natural soils and 97% slag fill 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 B14 was formerly occupied by the Humphrey Impoundment, designated as Recognized Environmental Condition (REC) 2A (Finding 61), which occupies the majority of Parcel B14. Between 1970 and 1985, the Humphrey Impoundment was historically used as a dewatering area for sludges generated from steel making processes. The impoundment is now filled, with little or no remaining surface water. The impoundment is now covered primarily with scrub vegetation and *Phragmites* reeds.

## 1.3. HISTORICAL ENVIRONMENTAL DATA

### Soil Data

There were 18 surface soil samples collected as a part of the Baseline Ecological Risk Assessment for On-Site Areas (BERA) Report (URS 2011). As discussed within the BERA, a screening level risk characterization was performed as part of the Screening Level Ecological Risk Assessment for On-Site Areas (SLERA; URS 2009a). This characterization indicated a need for further ecological risk evaluation in the Humphrey Impoundment Special Study Area (SSA). Of these 18 surface soil samples, 17 were collected within the Parcel B14 boundary. **Figure 3** illustrates all 18 surface soil sample locations collected during the BERA investigation, and **Appendix A** presents the historical data from all 18 of these surface sampling locations. **Appendix A** begins with the original BERA report figure showing the sample locations. No subsurface soil samples were collected in the previous investigation.

### Groundwater Data

There were 21 known existing site-wide groundwater wells identified within, or immediately adjacent to, Parcel B14. An additional five unknown groundwater wells were identified during a field investigation conducted by ARM on April 13, 2016 for the purpose of inspecting the known site-wide wells. Roughly half of the known historical wells (10) are associated with the adjacent Tin Mill Canal (designated as TM-); the remaining wells are associated with the Humphrey Impoundment (designated as HI-). The following wells were identified in the vicinity of Parcel B14 (excluding the five unknown wells) and are categorized into relative depth zones:

#### Shallow Hydrogeologic Zone (8):

- HI02-PZM006, HI04-PZM006, HI05-PZM012, HI07-PZM005, TM02-PZM009, TM04-PZM006, TM06-PZM008, and TM08-PZM007.

#### Intermediate Hydrogeologic Zone (8):

- HI02-PZM032, HI04-PZM034, HI05-PZM046, HI07-PZM032, TM02-PZM028, TM04-PZM028, TM06-PZM034, and TM08-PZM038.

#### Lower Hydrogeologic Zone (5):

- HI05-PZM108, HI07-PZM094, TM02-PZM062, TM04-PZM056, and TM04-PZM082.

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. The historical analytical results from these wells are presented in **Appendix B**. Highlighted results indicate any 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.

ARM completed inspections of the existing site-wide groundwater wells to determine whether they were suitable for sampling. Only wells present in the shallow hydrogeologic zone were considered for inclusion in the sampling plan. ARM has temporarily named the unknown wells identified during the inspections as Well 1 through Well 5; they have not been identified after a review of currently available reports. The well inspection forms from all relevant wells are included in **Appendix C**. Historically reported well construction data has been summarized and provided in **Appendix D**. The locations of the 26 historical wells installed in the vicinity of Parcel B14, including the five previously unknown wells, are shown on **Figure 4**.

## 1.4. SAMPLING DESIGN AND RATIONALE

### 1.4.1. Soil Sampling Targets

Parcel B14 contains a total of approximately 60.4 acres. The current engineered barriers were applied to determine the boring density requirements for the Site. The entire parcel is currently unpaved, and the investigation plan for the Site is proposed according to the density requirement for areas without engineered barriers. In accordance with the relevant sampling density requirement, a minimum of 31 soil boring locations are required (and proposed) at the Site. **Figure 5** shows the proposed borings on an aerial image to indicate locations of borings with regard to physical obstructions, landmarks, and the previously completed BERA samples. This figure acts as a reference map and indicates the boring IDs assigned to each individual location. The soil boring IDs have been abbreviated on all subsequent soil sampling figures. 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. Historical maps and drawings were geospatially referenced using Geographic Information Systems (GIS) software (ArcMap Version 10.3.1), and reviewed to determine the specific sampling locations. The first sampling targets to be identified were Recognized Environmental Conditions (RECs) 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 on the Tradepoint Atlantic property are required to be targeted with at least three boring locations. The following REC was identified at the Site from information presented in the Phase I ESA:

#### **REC 2A, Finding 61, SWMU 190 – Humphrey Impoundment Area:**

The Phase I ESA recommended that further action was needed for this area. This area was used to receive wastewater from various steel processing areas, as a sludge dewatering area, and for the storage of process slurry and other materials. These materials may have contained hazardous substances and/or petroleum products. The impoundment was closed in the 1960s due to the legislative precursors to the Clean Water Act, and was filled in the 1980s. The Humphrey Impoundment is included as a Special Study Area under the Consent Decree. Based on this information, the potential exists for past releases which may have impacted the environment. The REC boundary was adjusted very slightly from the original position shown on the REC Location Map in the Phase I ESA, based on the availability of aerial images in GIS which showed the extent of the former impoundment.

The DCC Report was also reviewed to identify additional sampling targets. This report included documentation from a previous Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) and a visual site inspection (VSI) prepared by A.T. Kearney, Inc. (dated August 1993). 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. **Figure 6** shows the proposed borings overlain on the DCC figure, which shows the SWMUs, AOCs, and main facility areas within the property boundaries. Besides the Humphrey Impoundment (SWMU 190) described above, there were no additional Findings, SWMUs, or AOCs that were identified at the Site, and no additional units were identified from the DCC Report Table 3-1.

Following the identification of all RECs, SWMUs, and AOCs, four 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 inside the boundary of Parcel B14. **Figures 7 through 9** show the proposed borings (17 of which correspond to the locations of previous BERA samples) 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 below:



<b>Parcel B14 Historical Site Drawings Details</b>				
<u>Set Name</u>	<u>Typical Feature 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.)	5038	9/1/1958	3/11/1982
		5039	9/1/1958	3/11/1982
		5040	6/15/1958	3/19/1982
		5043	8/3/1959	3/11/1982
		5044	8/3/1959	3/11/1982
		5045	9/21/1959	3/19/1982
		5050	<i>Unknown</i>	3/18/1982
Plant Index	Roads, water bodies, demolished buildings/structures, electric lines, above-ground pipelines	5138	<i>Unknown</i>	1/10/2008
		5139	<i>Unknown</i>	1/16/2008
		5140	<i>Unknown</i>	8/15/2008
		5143	<i>Unknown</i>	8/15/2008
		5144	<i>Unknown</i>	8/5/2008
		5145	<i>Unknown</i>	8/18/2008
		5150	<i>Unknown</i>	8/18/2008
Plant Sewer Lines	Same as above plus trenches, sumps, underground piping (includes pipe materials)	5538	<i>Unknown</i>	2/10/1975
		5539	8/28/1959	2/21/1975
		5540	6/15/1958	7/14/1991
		5543	9/16/1959	4/1/1975
		5544*	9/16/1959	2/27/1976
		5545	9/21/1959	6/6/1985
		5550	9/16/1959	3/5/1976
Drip Legs	Coke Oven Gas Drip Legs Locations	5887	<i>Unknown</i>	Sept. 1988
		5888	<i>Unknown</i>	Sept. 1988

\*Spatial references for Drawing 5544 appears to be obstructed. Based on Drawings 5144 and 5044, it is unlikely that any additional targets are shown on Drawing 5544.

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 target a specific feature (in this case the Humphrey Impoundment) 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 the review, there were no additional industrial activities or target features identified beyond the Humphrey Impoundment. Additional sample

locations were added to fill in areas with insufficient coverage (large spatial gaps between borings) within the Site and to meet the sample density requirements set forth in the Quality Assurance Project Plan (QAPP) Worksheet 17 – Sampling Design and Rationale.

The following BERA surface soil sample locations were used as guide locations for 17 of the required 31 soil borings: HI-SS-02, HI-SS-03, and HI-SS-06 through HI-SS-20. The proposed Phase II Investigation soil borings from B14-002-SB, B14-003-SB, and B14-006-SB through B14-020-SB will be co-located with the previous BERA surface soil samples, and the surface samples will be re-collected and analyzed for the standard parameter lists approved in the QAPP. The data derived during this Phase II Investigation will be used in lieu of the historical data. Due to an apparent gap in the identification numbers of the BERA soil samples (HI-SS-04 and HI-SS-05 missing; HI-SS-01 located outside of the parcel boundary), the proposed Site sampling plan will continue with the same numbering system used in the BERA. The full list of sampling targets, along with the specific rationale for sampling each, is provided as **Appendix E**.

Some boring locations within the Humphrey Impoundment may be inaccessible to the Geoprobe<sup>®</sup> due to soft surface conditions and/or standing water. In the event that some locations are unable to be accessed via Geoprobe<sup>®</sup> due to soft ground, borings at these locations will be completed to the water table (which is generally expected to be within 3 feet of the ground surface) by the use of a hand auger. Based on a review of aerial images and topographic data, **Figure 10** has been provided to indicate which borings are suspected to be located in these “limited access” areas which may have standing water or soft surface conditions. The soil sampling plan for conditions involving soft ground or standing water is further described in Section 3.3. Some additional sample locations around the exterior of the impoundment or on the surrounding berm may also require brush clearance to facilitate Geoprobe<sup>®</sup> access.

#### 1.4.2. Groundwater

Groundwater in the parcel will be investigated using several permanent groundwater wells present within, or immediately adjacent to, Parcel B14. A total of 26 wells have been located in the vicinity of the Site, including the five previously unknown wells identified during fieldwork. The locations of all 26 wells are shown on **Figure 4**. From this set of wells, only shallow wells were considered for inclusion in the groundwater sampling plan. The following five wells were selected for the sampling plan to provide adequate coverage around the perimeter of the Site: HI04-PZM006, TM02-PZM009, TM04-PZM006, TM06-PZM008, TM08-PZM007. In addition, HI02-PZM006 and HI07-PZM005 were already sampled as part of the separate Parcel B8 investigation, and provide relevant data for overall characterization of the Site. **Figure 11** shows the proposed groundwater sampling locations on an aerial image. The permanent well HI04-PZM006 will be repaired/replaced as part of the Parcel B14 Phase II Investigation fieldwork.

## 2.0 PROJECT ORGANIZATION AND RESPONSIBILITIES

### 2.1. PROJECT PERSONNEL

The site characterization of Area B: Parcel B14 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, USEPA 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 hazardous constituents in the soil and groundwater at the Site, the investigation will be conducted under a Health and Safety Plan (HASP) to protect investigation workers from possible exposure to contaminated materials. The HASP to be used during the field investigation of Parcel B14 is included as **Appendix F**.

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 the attached HASP. 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 area that will be investigated, along with the proposed boring identification numbers and the analyses being performed, has been provided as **Appendix E**.

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 USEPA 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, and 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 HASP (**Appendix F**).

#### 3.3. SOIL INVESTIGATION

Soil samples collected from the locations identified on **Figures 5 through 10** will be screened and analyzed 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. If a concrete slab or slag aggregate occupies the 0 to 1 foot bgs sample, the interval may be shifted to the depth of the first observed soil interval. Soil samples will be analyzed for SVOCs, TAL-Metals, Oil & Grease,

TPH-DRO, TPH-GRO, hexavalent chromium, and cyanide. Samples from any depth interval with a sustained photoionization detector (PID) reading of greater than 10 ppm will also be analyzed for VOCs. Additionally, the soil sample collected from the shallow interval (0 to 1 foot bgs) will be analyzed for PCBs. 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 above the water table, the sample from the deeper 4 to 5 foot interval may be shifted to the depth interval indicated by the PID response. One additional sample will also be collected from the 9 to 10 foot depth interval if groundwater has not been encountered (unless using a hand auger). It should be noted that no soil samples will be collected from a depth that is below the water table.

If the PID reading from the 9 to 10 foot depth interval is less than 10 ppm, all parameters will be held by the laboratory pending the analysis of the 0 to 1 and 4 to 5 foot depth interval samples. If this depth interval exhibits a sustained PID reading of 10 ppm, it will be analyzed for VOCs, SVOCs, TPH-DRO, TPH-GRO, and Oil & Grease. However, the samples for metals and cyanide will be held by the laboratory pending the analysis of the 0 to 1 and 4 to 5 foot depth interval samples. If the analyses from the 4 to 5 foot depth interval show exceedances of PALs for any constituent, the held sample from the 9 to 10 foot depth interval will be analyzed for those constituents that exhibited PAL exceedances in the overlying 4 to 5 foot sample.

If the Geoprobe<sup>®</sup> is unable to access any of the proposed sample locations within the impoundment due to standing water, soft ground, or other encountered Site conditions (suspected limited access areas are indicated in **Figure 10**), a hand auger will be used to complete the boring to a depth of 5 feet bgs or groundwater, and no sample will be collected from the deep sample interval (9 to 10 feet bgs). If refusal is encountered while using the hand auger prior to reaching 5 feet bgs or groundwater, the 4 to 5 foot bgs sample will be adjusted to the deepest possible interval. The groundwater table is generally expected to be encountered within 3 feet of the ground surface inside the former impoundment, so the elimination of the 9 to 10 foot bgs sample is not expected to be significant. There is also reason to suspect that standing water may be encountered at the surface in some locations in the impoundment. In this case, the ponded water will be treated as the water table, and no soil samples will be collected. If possible, a nearby location (within 50 feet) will be selected to replace the boring where ponded water was present.

After soil sampling has been concluded at a location, 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). 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

Groundwater samples will be collected from permanent wells in accordance with procedures referenced in the QAPP Worksheet 21 – Field SOPs, SOP No. 006 – Groundwater Sampling. Because it has been years since the existing wells have been sampled, each well that will be sampled will be redeveloped according to procedures referenced in QAPP Worksheet 21 – Field SOPs, SOP No. 018 – Well Development. After redevelopment, ARM will record the depth to bottom in each well again to compare to the recorded original drilled depth.

Groundwater samples will be collected from currently existing monitoring wells HI04-PZM006, TM02-PZM009, TM04-PZM006, TM06-PZM008, and TM08-PZM007. In addition, HI02-PZM006 and HI07-PZM005 were already sampled as part of the separate Parcel B8 investigation, and provide relevant data for overall characterization of the Site. Completed inspection forms for each permanent well are included in **Appendix C**. The existing monitoring well HI04-PZM006 was observed to be bent at the ground surface. This well will be reconstructed/repared and redeveloped before groundwater sampling events occur. **Figure 11** indicates the specific wells selected for inclusion in the groundwater sampling plan.

All groundwater samples (collected from permanent wells) will be analyzed for VOCs, SVOCs, TAL-Metals (total and dissolved), Oil & Grease, TPH-DRO, TPH-GRO, hexavalent chromium (dissolved), and cyanide (total and available). 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.

Each groundwater sample collection point will be checked for the presence of non-aqueous phase liquid (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. The wells will also be surveyed to obtain groundwater elevation data, if current survey information is not available. The elevation data from these wells will be used to create a groundwater contour map indicating localized groundwater flow directions.

### 3.5. NAPL DELINEATION

The MDE will be notified of any initial observation of NAPL bearing soils identified in a soil boring within 2 hours of the field observation. This notification will be provided in email format to appropriate MDE representatives. For the purposes of this notification, NAPL bearing soil is defined as soil containing free oil (i.e., liquid oil which could potentially be drained or otherwise extracted from the soil). If minor indications of NAPL (globules or a sheen) are identified in the soil core, the NAPL will be delineated in accordance with the procedures listed below, but the initial 2-hour MDE notification will not be required (unless NAPL bearing soils are identified during the subsequent delineation). Any subsequent observations of NAPL within the same

areas will not require additional redundant notifications. The presence of measureable NAPL in a groundwater sampling point will warrant the same 2-hour MDE notification and subsequent delineation. If the evidence of NAPL is limited to a trace detection, the potential impacts will be delineated but the initial 2-hour MDE notification will not be required.

In the event that NAPL and/or sheen is 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. ARM will immediately check the piezometer 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. Each piezometer installed to delineate the presence or absence of NAPL will be checked with an oil-water interface probe immediately after installation, 48 hours after installation, and 30 days after installation. If NAPL is not detected after 30 days of equilibration time, 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 or sheen is present in the initial piezometer, ARM will remobilize (following utility clearance) to install and inspect additional soil borings and shallow temporary piezometers to the north, south, east, and west of the detection point at distances of approximately 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 NAPL is present within any of the piezometers, additional borings/piezometers will be added as necessary to complete the delineation. 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.

### **3.6. SAMPLE DOCUMENTATION**

#### **3.6.1. Sample Numbering**

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



### **3.6.2. 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.

### **3.7. 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 E**. 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 groundwater samples will be analyzed for, as well as the quantitation limits and PALs, 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 and groundwater samples will be collected using dedicated equipment including new soil core liners and polyethylene tubing. 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, TPH-DRO, TPH-GRO, Oil & Grease, PCBs, hexavalent chromium, and cyanide
  - Water – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, hexavalent chromium, and cyanide
- Matrix Spike/Matrix Spike Duplicate – at a rate of one per twenty samples
  - Soil – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, PCBs, and hexavalent chromium
  - Water – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, and hexavalent chromium
- Field Blank and Equipment Blank
  - Soil – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, hexavalent chromium, and cyanide
  - Water – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Oil & Grease, hexavalent chromium, and cyanide

The QC samples will be collected and analyzed in accordance with the QAPP Worksheet 12 – Measurement Performance Criteria, Worksheet 20 – Field Quality Control, and 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 B14 Phase II Investigation, a representative 50% of the complete analytical dataset will undergo data validation. Samples will be selected in groups according to the laboratory project number assigned to each set of samples. Each laboratory 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 and the designated 50% of validated data from Area B: Parcel B14, a Phase II Investigation Report will be prepared that will document the sample collection procedures and supporting rationale, and present and interpret the analytical results. 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 (or other direct guidance from the MDE), 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 Screening Level Risk Assessment (SLRA) to evaluate potential baseline risks to future workers of the Site prior to any mitigative measures. Compounds that are present at concentrations at or above the USEPA Regional Screening Levels (RSLs) set at a target cancer risk of  $1E-6$  or target non-cancer Hazard Quotient (HQ) of 0.1 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 size of the parcel and distribution of the proposed soil borings. Exposure point concentrations (EPCs) will be estimated for each COPC dataset (surface, subsurface, and pooled surface/subsurface) in the site-wide EU using ProUCL software. The estimates of potential EPCs for the soil datasets will be compared to the RSLs for the Composite Worker scenario and to site-specific Soil Screening Levels (SSLs) for the Construction Worker scenario (calculated based on the USEPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites) to develop risk ratios for each COPC relative to a cancer risk of  $1E-6$  and non-cancer HQ of 1. The risk ratios for individual COPCs will be summed for the carcinogens and non-carcinogens (summed by target organ) to provided screening level estimates of potential cumulative risk to determine if further action is warranted. Lead, PCBs, and TPH/Oil & Grease are subject to special requirements as designated by the agencies: lead results above 10,000 mg/kg are subject to additional delineation (and possible excavation), PCB results above 50 mg/kg are subject to delineation and excavation, and TPH/Oil & Grease results above 6,200 mg/kg should be evaluated for the potential presence and mobility of NAPL in any future development planning. ARM will also present recommendations for any additional site investigation activities if warranted.

## 8.0 SCHEDULE

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

- the sample collection activities will take approximately 4 weeks to complete (including mobilization activities) once approval of the Work Plan is received;
- the soil and groundwater sample analysis, data validation, and review is expected to require an additional 8 weeks to complete; and
- the preparation of the investigation report, including an internal Quality Assurance review cycle, will require another 6 weeks.

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## FIGURES

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- Site Boundary
- Parcel Boundaries
- Private Property



**Tradepoint Atlantic**  
**Area A and Area B Parcels**  
 July 25, 2017

**Figure**  
1

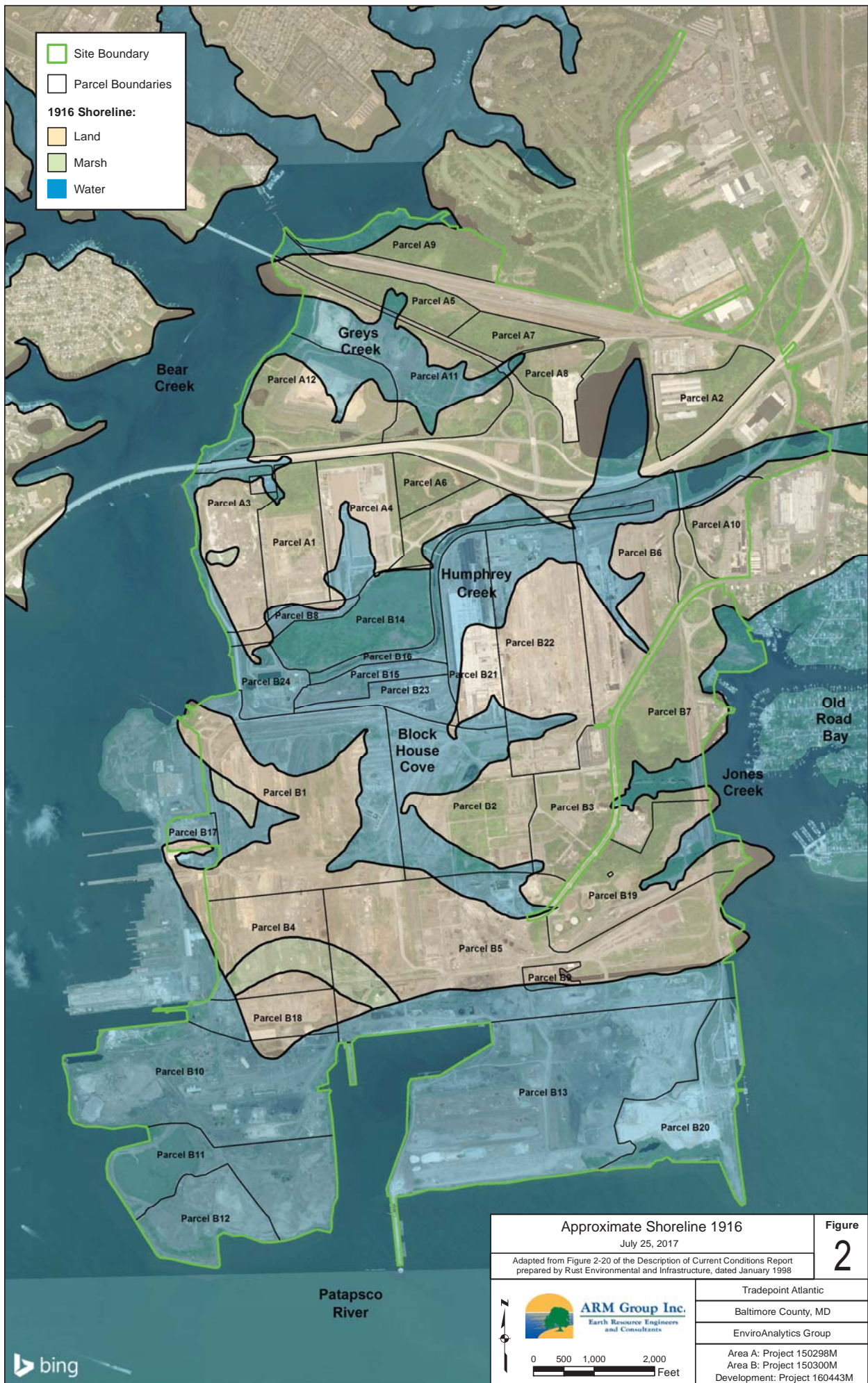


**ARM Group Inc.**  
 Earth Resource Engineers  
 and Consultants

0 500 1,000 2,000  
 Feet

Tradepoint Atlantic
Baltimore County, MD
EnviroAnalytics Group
Area A: Project 150298M Area B: Project 150300M Development: Project 160443M





Site Boundary  
 Parcel Boundaries  
**1916 Shoreline:**  
 Land  
 Marsh  
 Water

Approximate Shoreline 1916 July 25, 2017		<b>Figure</b>  <span style="font-size: 2em; font-weight: bold;">2</span>
Adapted from Figure 2-20 of the Description of Current Conditions Report prepared by Rust Environmental and Infrastructure, dated January 1998		
<b>ARM Group Inc.</b> Earth Resource Engineers and Consultants		Tradepoint Atlantic Baltimore County, MD EnviroAnalytics Group
		Area A: Project 150298M Area B: Project 150300M Development: Project 160443M





No Engineered Barrier:  
 100% of Parcel Coverage  
 2,628,800 square feet (60.4 acres)

Parking/Roads:  
 0% of Parcel Coverage  
 0 square feet (0 acres)

Buildings:  
 0% of Parcel Coverage  
 0 square feet (0 acres)

**Figure 3**

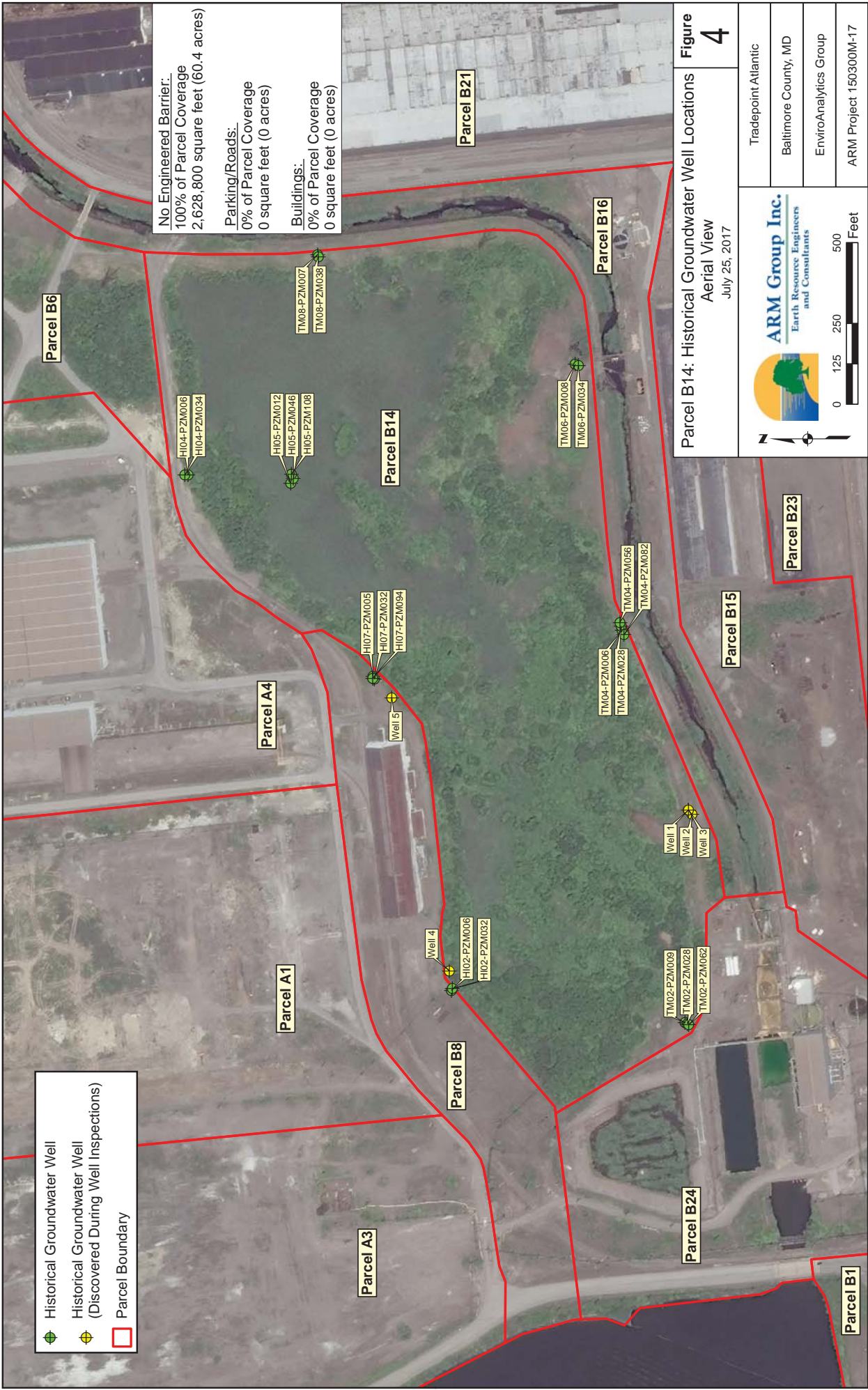
**Parcel B14: BERA Surface Soil Sample Locations**  
 Aerial View  
 July 25, 2017

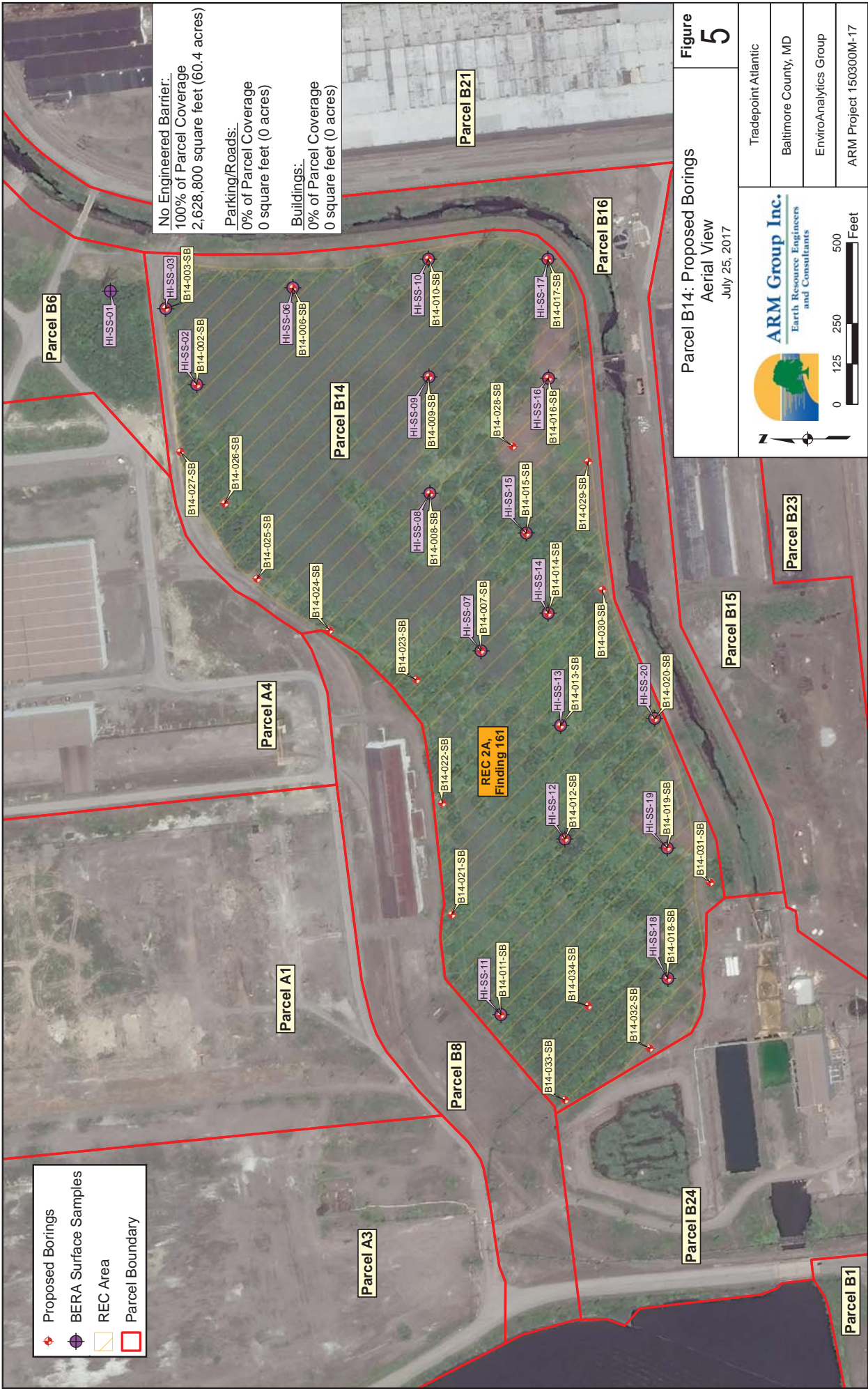
Tradepoint Atlantic  
 Baltimore County, MD  
 EnviroAnalytics Group  
 ARM Project 150300M-17

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

0 125 250 500 Feet

- BERA Surface Samples
- Parcel Boundary





No Engineered Barrier:  
 100% of Parcel Coverage  
 2,628,800 square feet (60.4 acres)

Parking/Roads:  
 0% of Parcel Coverage  
 0 square feet (0 acres)

Buildings:  
 0% of Parcel Coverage  
 0 square feet (0 acres)

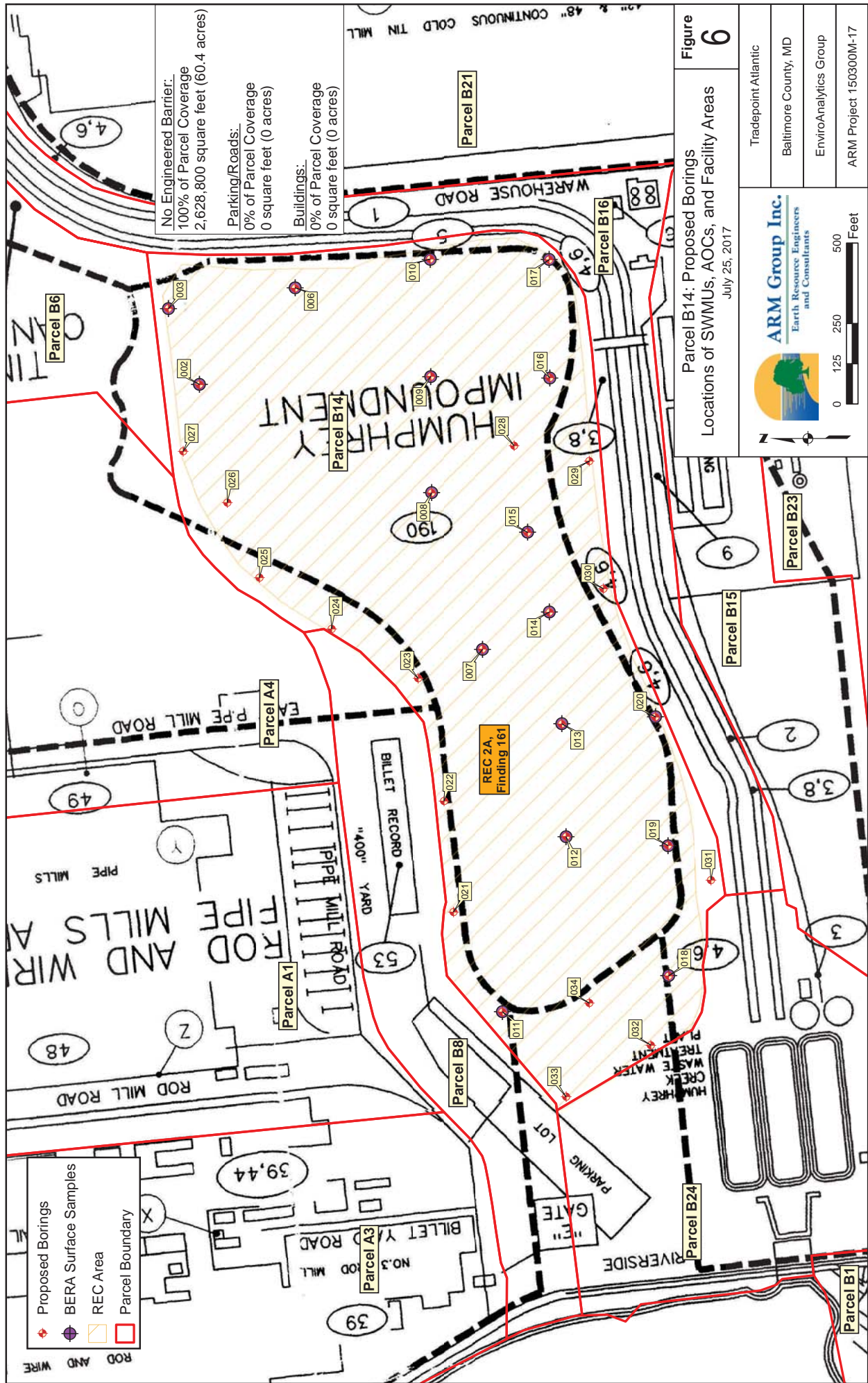
- Proposed Borings
- BERA Surface Samples
- REC Area
- Parcel Boundary

Parcel B14: Proposed Borings  
 Aerial View  
 July 25, 2017



Tradepoint Atlantic  
 Baltimore County, MD  
 EnviroAnalytics Group  
 ARM Project 150300M-17



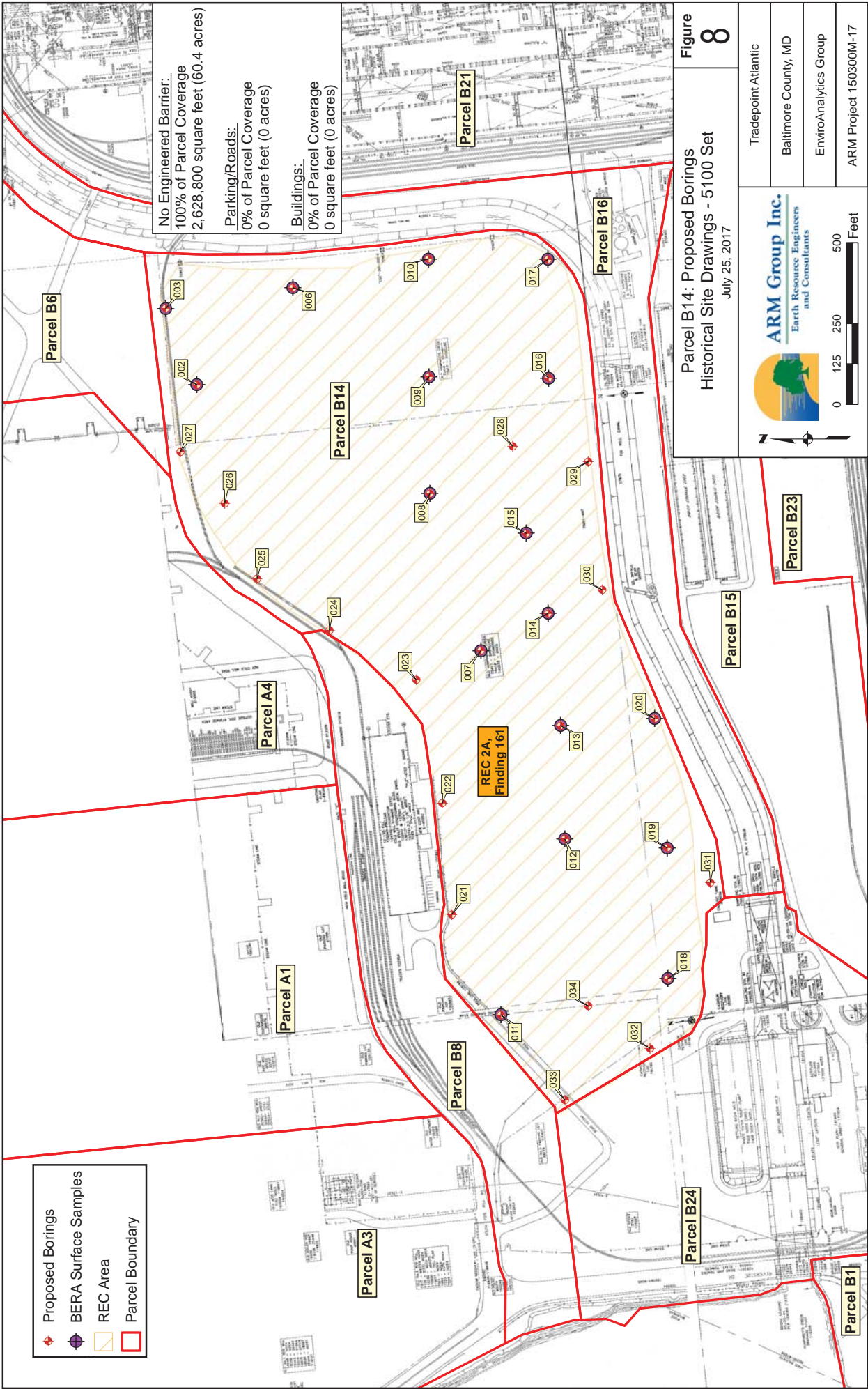




**Figure 7**

**Parcel B14: Proposed Borings  
Historical Site Drawings - 5000 Set**

July 25, 2017



No Engineered Barrier:  
 100% of Parcel Coverage  
 2,628,800 square feet (60.4 acres)

Parking/Roads:  
 0% of Parcel Coverage  
 0 square feet (0 acres)

Buildings:  
 0% of Parcel Coverage  
 0 square feet (0 acres)

- Proposed Borings
- BERA Surface Samples
- REC Area
- Parcel Boundary

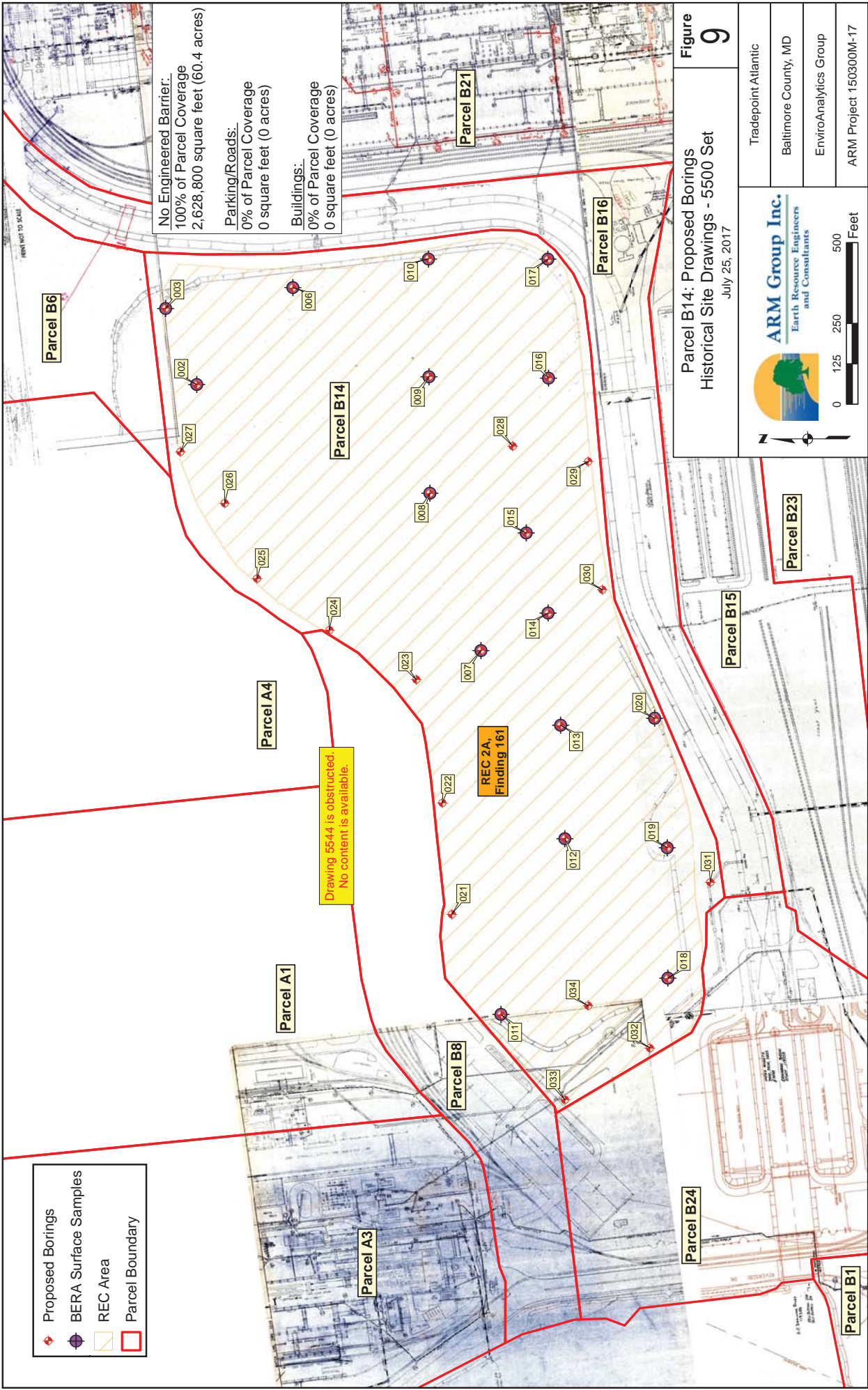
**Figure 8**

Parcel B14: Proposed Borings  
 Historical Site Drawings - 5100 Set  
 July 25, 2017

Tradepoint Atlantic  
 Baltimore County, MD  
 EnviroAnalytics Group  
 ARM Project 150300M-17

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

0 125 250 500 Feet







- Proposed Borings
- BERA Surface Samples
- Potential Limited Access Areas (ponded water, mud, etc.)
- Parcel Boundary

**No Engineered Barrier:**  
 100% of Parcel Coverage  
 2,628,800 square feet (60.4 acres)

**Parking/Roads:**  
 0% of Parcel Coverage  
 0 square feet (0 acres)

**Buildings:**  
 0% of Parcel Coverage  
 0 square feet (0 acres)

**Parcel B14: Proposed Borings**  
 Potential Limited Access Areas (2013 Aerial)  
 July 25, 2017

**Figure 10**

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

Tradepoint Atlantic  
 Baltimore County, MD  
 EnviroAnalytics Group  
 ARM Project 150300M-17

0 125 250 500 Feet

bing



No Engineered Barrier:  
 100% of Parcel Coverage  
 2,628,800 square feet (60.4 acres)

Parking/Roads:  
 0% of Parcel Coverage  
 0 square feet (0 acres)

Buildings:  
 0% of Parcel Coverage  
 0 square feet (0 acres)

- Groundwater Well
- Groundwater Well (Repair/Replace)
- Parcel Boundary

**Parcel B14: Proposed Groundwater Samples**

**Figure 11**

Aerial View  
 July 25, 2017

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

Tradepoint Atlantic  
 Baltimore County, MD  
 EnviroAnalytics Group  
 ARM Project 150300M-17

0 125 250 500 Feet

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## **APPENDIX A**

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**Legend**

- Surface Soil Sample Location
- Humphrey Impoundment SSA
- Sampling Grid



Key Map  
Not to Scale

NAD 1983 StatePlane Maryland  
Projection: Lambert Conformal Conic  
Linear Unit: US Foot  
Data Sources: -  
Aerial Photography: Aerials Express 2005  
URS Corporation



1 inch = 250 feet  
(When printed at 11x17)



**Figure 4**  
**Humphrey Impoundment**  
**Surface Soil Sampling Locations**  
**RG Steel Sparrows Point**

Sparrows Point, Maryland

Prepared By: PLJ

Checked By: WR

IG:GIS\_DRA/MTA/STEEL/Projects/BERA  
Title: Surface Soil Sampling Imp  
Page: 4 of 42

Job: 15302184.00002

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-01			HI-SS-02		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Antimony	470	3		No	4.8		No
Arsenic	3	34.2		Yes	53.5		Yes
Barium	220,000	119		No	400		No
Beryllium	2,300	0.76		No	0.58		No
Cadmium	980	10.8	K	No	54.9	K	No
Chromium		2,490		No	5,750		No
Cobalt	350	10.9		No	13.7		No
Copper	47,000	436		No	501		No
Cyanide, Total	150	9.2		No	33.2		No
Lead	800	941		Yes	1,160		Yes
Mercury	350	0.092	L	No	1.7	L	No
Nickel	22,000	44		No	98.4		No
Selenium	5,800	4.5		No	5.7		No
Silver	5,800	8.1		No	10.4		No
Sulfide, Total		21.9		No	56.4	U	No
Thallium	12	6.8	U	No	9.4	U	No
Tin		6,910		No	10,000		No
Vanadium	5,800	131		No	103		No
Zinc	350,000	3,140	J	No	10,700	J	No
Aroclor 1016	27	0.095		No	0.031	U	No
Aroclor 1221	0.72	0.023	U	No	0.031	U	No
Aroclor 1232	0.72	0.023	U	No	0.031	U	No
Aroclor 1242	0.97	0.023	U	No	0.031	U	No
Aroclor 1248	0.94	0.023	U	No	0.031	U	No
Aroclor 1254	0.97	0.023	U	No	0.031	U	No
Aroclor 1260	0.99	1.6		Yes	1.2		Yes
1,1,1,2-Tetrachloroethane		0.012	U	No	0.012	U	No
1,1,1-Trichloroethane	36,000	0.012	U	No	0.012	U	No
1,1,2,2-Tetrachloroethane	2.7	0.012	U	No	0.012	U	No
1,1,2-Trichloroethane	5	0.012	U	No	0.012	U	No
1,1-Dichloroethane	16	0.012	U	No	0.012	U	No
1,1-Dichloroethene	1,000	0.012	U	No	0.012	U	No
1,2-Dichloroethane	2	0.012	U	No	0.012	U	No
1,2-Dichloropropane	4.4	0.012	U	No	0.012	U	No
2-Butanone	190,000	0.012	U	No	0.012	U	No
2-Hexanone	1,300	0.012	U	No	0.012	U	No
4-Methyl-2-pentanone	56,000	0.012	U	No	0.012	U	No
Acetone	670,000	0.046	U	No	0.046	U	No
Benzene	5.1	0.012	U	No	0.012	U	No
Bromoform	86	0.012	U	No	0.012	U	No
Carbon disulfide	3,500	0.012	U	No	0.012	U	No
Carbon tetrachloride	2.9	0.012	U	No	0.012	U	No
Chlorobenzene	1,300	0.012	U	No	0.012	U	No
Chloroethane	57,000	0.012	U	No	0.012	U	No
Chloroform	1.4	0.012	U	No	0.012	U	No
cis-1,3-Dichloropropane		0.012	U	No	0.012	U	No
Ethylbenzene	25	0.012	U	No	0.012	U	No
Methylene chloride	1,000	0.0042	B	No	0.0079	B	No

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-01			HI-SS-02		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Tetrachloroethene	100	0.012	U	No	0.012	U	No
Toluene	47,000	0.012	U	No	0.012	U	No
trans-1,2-Dichloroethene	23,000	0.012	U	No	0.012	U	No
trans-1,3-Dichloropropane		0.012	U	No	0.012	U	No
Trichloroethene	6	0.012	U	No	0.012	U	No
Vinyl chloride	1.7	0.012	U	No	0.012	U	No
Xylenes (total)	2,800	0.035	U	No	0.062	U	No
2-Methylnaphthalene	3,000	0.91	U	No	0.62	U	No
Acenaphthene	45,000	0.91	U	No	0.62	U	No
Acenaphthylene	45,000	0.91	U	No	0.62	U	No
Anthracene	230,000	0.91	U	No	0.25		No
Fluoranthene	30,000	0.91	U	No	0.66		No
Fluorene	30,000	0.91	U	No	0.62	U	No
Naphthalene	17	0.91	U	No	0.31		No
Phenanthrene		0.91	U	No	0.68		No
Benzo(a)anthracene	21.0	0.91	U	No	0.54		No
Benzo(a)pyrene	2.10	0.91	U	No	0.41		No
Benzo(b)fluoranthene	21.0	0.91	U	No	0.62	U	No
Benzo(ghi)perylene		0.91	U	No	0.62	U	No
Benzo(k)fluoranthene	210	0.91	U	No	0.62	U	No
Chrysene	2,100	0.91	U	No	0.47		No
Dibenz(a,h)anthracene	2.10	0.91	U	No	0.62	U	No
Indeno(1,2,3-cd)pyrene	21.0	0.91	U	No	0.62	U	No
Pyrene	23,000	0.91	U	No	0.78		No
1,2,4-Trichlorobenzene	110	4.5	U	No	3.1	U	No
1,2-Dichlorobenzene	9,300	0.91	U	No	0.62	U	No
1,3-Dichlorobenzene		0.91	U	No	0.62	U	No
1,4-Dichlorobenzene	11	0.91	U	No	0.62	U	No
2,2'-oxybis(1-Chloropropane)		0.91	U	No	0.62	U	No
2,4,5-Trichlorophenol	82,000	4.5	U	No	3.1	U	No
2,4,6-Trichlorophenol	210	4.5	U	No	3.1	U	No
2,4-Dichlorophenol	2,500	0.91	U	No	0.62	U	No
2,4-Dimethylphenol	16,000	4.5	U	No	3.1	U	No
2,4-Dinitrophenol	1,600	20	U	No	14	U	No
2,4-Dinitrotoluene	7.4	4.5	U	No	3.1	U	No
2,6-Dinitrotoluene	1.5	4.5	U	No	3.1	U	No
2-Chloronaphthalene	60,000	0.91	U	No	0.62	U	No
2-Chlorophenol	5,800	4.5	U	No	3.1	U	No
2-Methylphenol	41,000	4.5	U	No	3.1	U	No
2-Nitrophenol		4.5	U	No	3.1	U	No
3,3'-Dichlorobenzidine	5.1	4.5	U	No	3.1	U	No
3,3'-Dimethylbenzidine		23	U	No	16	U	No
3-Methylphenol & 4-Methylphenol	41	4.5	U	No	3.1	U	No
4,6-Dinitro-2-methylphenol		20	U	No	14	U	No
4-Bromophenyl phenyl ether		4.5	U	No	3.1	U	No
4-Chloro-3-methylphenol		4.5	U	No	3.1	U	No
4-Chlorophenyl phenyl ether		4.5	U	No	3.1	U	No
4-Nitrophenol		4.5	U	No	3.1	U	No
bis(2-Chloroethoxy)methane	2,500	4.5	U	No	3.1	U	No
bis(2-Chloroethyl) ether	1	0.91	U	No	0.62	U	No

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-01			HI-SS-02		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
bis(2-Ethylhexyl) phthalate	160	4.5	U	No	3.1	U	No
Butyl benzyl phthalate		4.5	U	No	3.1	U	No
Dibenzofuran		4.5	U	No	3.1	U	No
Diethyl phthalate	660,000	4.5	U	No	3.1	U	No
Dimethyl phthalate		4.5	U	No	3.1	U	No
Di-n-butyl phthalate	82,000	4.5	U	No	3.1	U	No
Di-n-octyl phthalate	8,200	4.5	U	No	3.1	U	No
Hexachlorobenzene	0.96	0.91	U	No	0.62	U	No
Hexachlorobutadiene	5.3	0.91	U	No	0.62	U	No
Hexachlorocyclopentadiene	7.5	4.5	U	No	3.1	U	No
Hexachloroethane	8	4.5	U	No	3.1	U	No
Isophorone	2,400	4.5	U	No	3.1	U	No
Nitrobenzene	22	0.91	U	No	0.62	U	No
Pentachloroethane		4.5	U	No	3.1	U	No
Pentachlorophenol	4	1.4	U	No	0.93	U	No
Phenol	250,000	0.91	U	No	0.62	U	No
Pyridine		4.5	U	No	3.1	U	No

B = The analyte was not detected substantially above the level reported in laboratory or field blanks

J = The analyte was positively detected; the associated numerical value is approximate

K = The analyte was positively detected; the reported value may be biased high

L = The analyte was positively detected; the reported value may be biased low

U = The analyte was not detected above the reporting limit

UJ = The analyte's reporting limit is approximate

UL = The analyte was not detected above the reporting limit; the reporting limit may be biased low

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-03			HI-SS-06		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Antimony	470	6.1		No		U	No
Arsenic	3	65.7		Yes	1.8		No
Barium	220,000	220		No	131		No
Beryllium	2,300	0.8	B	No	2		No
Cadmium	980	115	K	No	0.54	K	No
Chromium		11,700		No	124		No
Cobalt	350	32		No	1.8		No
Copper	47,000	991		No	20.4		No
Cyanide, Total	150	20.8		No	4.9		No
Lead	800	1,010		Yes	42.5		No
Mercury	350	1.5	L	No		UL	No
Nickel	22,000	337		No	11.1		No
Selenium	5,800	16.9		No		U	No
Silver	5,800	18		No	0.79		No
Sulfide, Total		90	U	No	316		No
Thallium	12	15	U	No		U	No
Tin		9,610		No	86.8		No
Vanadium	5,800	88.7		No	88.9		No
Zinc	350,000	23,300	J	No	475	J	No
Aroclor 1016	27	0.05	U	No		U	No
Aroclor 1221	0.72	0.05	U	No		U	No
Aroclor 1232	0.72	0.05	U	No		U	No
Aroclor 1242	0.97	0.05	U	No		U	No
Aroclor 1248	0.94	0.05	U	No		U	No
Aroclor 1254	0.97	0.05	U	No		U	No
Aroclor 1260	0.99	1.1		Yes	0.27		No
1,1,1,2-Tetrachloroethane		0.039	U	No		UJ	No
1,1,1-Trichloroethane	36,000	0.039	U	No		UJ	No
1,1,2,2-Tetrachloroethane	2.7	0.039	U	No		UJ	No
1,1,2-Trichloroethane	5	0.039	U	No		UJ	No
1,1-Dichloroethane	16	0.039	U	No		UJ	No
1,1-Dichloroethene	1,000	0.039	U	No		UJ	No
1,2-Dichloroethane	2	0.039	U	No		UJ	No
1,2-Dichloropropane	4.4	0.039	U	No		UJ	No
2-Butanone	190,000	0.039	U	No		UJ	No
2-Hexanone	1,300	0.039	U	No		UJ	No
4-Methyl-2-pentanone	56,000	0.039	U	No		UJ	No
Acetone	670,000	0.16	U	No		UJ	No
Benzene	5.1	0.039	U	No		UJ	No
Bromoform	86	0.039	U	No		UJ	No
Carbon disulfide	3,500	0.039	U	No		UJ	No
Carbon tetrachloride	2.9	0.039	U	No		UJ	No
Chlorobenzene	1,300	0.039	U	No		UJ	No
Chloroethane	57,000	0.039	U	No		UJ	No
Chloroform	1.4	0.039	U	No		UJ	No
cis-1,3-Dichloropropane		0.039	U	No		UJ	No
Ethylbenzene	25	0.039	U	No		UJ	No
Methylene chloride	1,000	0.017	B	No	0.0043	B	No



**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-03			HI-SS-06		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Tetrachloroethene	100	0.039	U	No		UJ	No
Toluene	47,000	0.039	U	No		UJ	No
trans-1,2-Dichloroethene	23,000	0.039	U	No		UJ	No
trans-1,3-Dichloropropane		0.039	U	No		UJ	No
Trichloroethene	6	0.039	U	No		UJ	No
Vinyl chloride	1.7	0.039	U	No		UJ	No
Xylenes (total)	2,800	0.12	U	No		U	No
2-Methylnaphthalene	3,000	1	U	No		U	No
Acenaphthene	45,000	1	U	No		U	No
Acenaphthylene	45,000	0.55		No	0.045		No
Anthracene	230,000	1	U	No	0.021		No
Fluoranthene	30,000	0.4		No	0.052		No
Fluorene	30,000	1	U	No		U	No
Naphthalene	17	1	U	No		U	No
Phenanthrene		0.32		No	0.043		No
Benzo(a)anthracene	21.0	1	U	No	0.07		No
Benzo(a)pyrene	2.10	1	U	No	0.19		No
Benzo(b)fluoranthene	21.0	1	U	No	0.18		No
Benzo(ghi)perylene		1	U	No	0.25		No
Benzo(k)fluoranthene	210	1	U	No	0.06		No
Chrysene	2,100	1	U	No	0.09		No
Dibenz(a,h)anthracene	2.10	1	U	No		U	No
Indeno(1,2,3-cd)pyrene	21.0	1	U	No	0.19		No
Pyrene	23,000	1	U	No	0.075		No
1,2,4-Trichlorobenzene	110	5	U	No		U	No
1,2-Dichlorobenzene	9,300	1	U	No		U	No
1,3-Dichlorobenzene		1	U	No		U	No
1,4-Dichlorobenzene	11	1	U	No		U	No
2,2'-oxybis(1-Chloropropane)		1	U	No		U	No
2,4,5-Trichlorophenol	82,000	5	U	No		U	No
2,4,6-Trichlorophenol	210	5	U	No		U	No
2,4-Dichlorophenol	2,500	1	U	No		U	No
2,4-Dimethylphenol	16,000	5	U	No		U	No
2,4-Dinitrophenol	1,600	23	U	No		U	No
2,4-Dinitrotoluene	7.4	5	U	No		U	No
2,6-Dinitrotoluene	1.5	5	U	No		U	No
2-Chloronaphthalene	60,000	1	U	No		U	No
2-Chlorophenol	5,800	5	U	No		U	No
2-Methylphenol	41,000	5	U	No		U	No
2-Nitrophenol		5	U	No		U	No
3,3'-Dichlorobenzidine	5.1	5	U	No		U	No
3,3'-Dimethylbenzidine		25	U	No		U	No
3-Methylphenol & 4-Methylphenol	41	5	U	No		U	No
4,6-Dinitro-2-methylphenol		23	U	No		U	No
4-Bromophenyl phenyl ether		5	U	No		U	No
4-Chloro-3-methylphenol		5	U	No		U	No
4-Chlorophenyl phenyl ether		5	U	No		U	No
4-Nitrophenol		5	U	No		U	No
bis(2-Chloroethoxy)methane	2,500	5	U	No		U	No
bis(2-Chloroethyl) ether	1	1	U	No		U	No

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-03			HI-SS-06		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
bis(2-Ethylhexyl) phthalate	160	5	U	No		U	No
Butyl benzyl phthalate		5	U	No		U	No
Dibenzofuran		5	U	No		U	No
Diethyl phthalate	660,000	5	U	No		U	No
Dimethyl phthalate		5	U	No		U	No
Di-n-butyl phthalate	82,000	5	U	No		U	No
Di-n-octyl phthalate	8,200	5	U	No		U	No
Hexachlorobenzene	0.96	1	U	No		U	No
Hexachlorobutadiene	5.3	1	U	No		U	No
Hexachlorocyclopentadiene	7.5	5	U	No		U	No
Hexachloroethane	8	5	U	No		U	No
Isophorone	2,400	5	U	No		U	No
Nitrobenzene	22	1	U	No		U	No
Pentachloroethane		5	U	No		U	No
Pentachlorophenol	4	1.5	U	No		U	No
Phenol	250,000	1	U	No		U	No
Pyridine		5	U	No		U	No

B = The analyte was not detected substantially above the level reported in laboratory or field blanks

J = The analyte was positively detected; the associated numerical value is approximate

K = The analyte was positively detected; the reported value may be biased high

L = The analyte was positively detected; the reported value may be biased low

U = The analyte was not detected above the reporting limit

UJ = The analyte's reporting limit is approximate

UL = The analyte was not detected above the reporting limit; the reporting limit may be biased low

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-07			HI-SS-08		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Antimony	470	6.4	U	No	3.1		No
Arsenic	3	15.3		Yes	28.4		Yes
Barium	220,000	42.3		No	15.2		No
Beryllium	2,300	0.95		No	0.63		No
Cadmium	980	3.2	U	No	9.5	K	No
Chromium		169		No	278		No
Cobalt	350	7		No	9.6		No
Copper	47,000	99.9		No	165		No
Cyanide, Total	150	12.1		No	50.7		No
Lead	800	487		No	1,040		Yes
Mercury	350	0.17	L	No	0.54	L	No
Nickel	22,000	36.8		No	97.1		No
Selenium	5,800	3.8		No	8		No
Silver	5,800	4.9		No	5.7		No
Sulfide, Total		38.4	U	No	35.1	U	No
Thallium	12	5.4		No	11.7	U	No
Tin		18.9		No	75.6		No
Vanadium	5,800	83.3		No	111		No
Zinc	350,000	4,830	J	No	8,760	J	No
Aroclor 1016	27	0.021	U	No	0.02	U	No
Aroclor 1221	0.72	0.021	U	No	0.02	U	No
Aroclor 1232	0.72	0.021	U	No	0.02	U	No
Aroclor 1242	0.97	0.021	U	No	0.02	U	No
Aroclor 1248	0.94	0.021	U	No	0.02	U	No
Aroclor 1254	0.97	0.021	U	No	0.02	U	No
Aroclor 1260	0.99	0.013		No	0.029		No
1,1,1,2-Tetrachloroethane		0.0082	U	No	0.0055	U	No
1,1,1-Trichloroethane	36,000	0.0082	U	No	0.0055	U	No
1,1,2,2-Tetrachloroethane	2.7	0.0082	U	No	0.0055	U	No
1,1,2-Trichloroethane	5	0.0082	U	No	0.0055	U	No
1,1-Dichloroethane	16	0.0082	U	No	0.0055	U	No
1,1-Dichloroethene	1,000	0.0082	U	No	0.0055	U	No
1,2-Dichloroethane	2	0.0082	U	No	0.0055	U	No
1,2-Dichloropropane	4.4	0.0082	U	No	0.0055	U	No
2-Butanone	190,000	0.0082	U	No	0.0055	U	No
2-Hexanone	1,300	0.0082	U	No	0.0055	U	No
4-Methyl-2-pentanone	56,000	0.0082	U	No	0.0055	U	No
Acetone	670,000	0.033	U	No	0.022	U	No
Benzene	5.1	0.0082	U	No	0.0055	U	No
Bromoform	86	0.0082	U	No	0.0055	U	No
Carbon disulfide	3,500	0.0082	U	No	0.0055	U	No
Carbon tetrachloride	2.9	0.0082	U	No	0.0055	U	No
Chlorobenzene	1,300	0.0082	U	No	0.0055	U	No
Chloroethane	57,000	0.0082	U	No	0.0055	U	No
Chloroform	1.4	0.0082	U	No	0.0055	U	No
cis-1,3-Dichloropropane		0.0082	U	No	0.0055	U	No
Ethylbenzene	25	0.0082	U	No	0.0055	U	No
Methylene chloride	1,000	0.0031	B	No	0.0023	B	No

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-07			HI-SS-08		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Tetrachloroethene	100	0.0082	U	No	0.0055	U	No
Toluene	47,000	0.0082	U	No	0.0055	U	No
trans-1,2-Dichloroethene	23,000	0.0082	U	No	0.0055	U	No
trans-1,3-Dichloropropane		0.0082	U	No	0.0055	U	No
Trichloroethene	6	0.0082	U	No	0.0055	U	No
Vinyl chloride	1.7	0.0082	U	No	0.0055	U	No
Xylenes (total)	2,800	0.025	U	No	0.017	U	No
2-Methylnaphthalene	3,000	0.085	U	No	0.078	U	No
Acenaphthene	45,000	0.085	U	No	0.078	U	No
Acenaphthylene	45,000	0.085	U	No	0.078	U	No
Anthracene	230,000	0.085	U	No	0.078	U	No
Fluoranthene	30,000	0.062		No	0.038		No
Fluorene	30,000	0.085	U	No	0.078	U	No
Naphthalene	17	0.085	U	No	0.078	U	No
Phenanthrene		0.05		No	0.027		No
Benzo(a)anthracene	21.0	0.082		No	0.034		No
Benzo(a)pyrene	2.10	0.1		No	0.03		No
Benzo(b)fluoranthene	21.0	0.15		No	0.065		No
Benzo(ghi)perylene		0.071		No	0.084		No
Benzo(k)fluoranthene	210	0.054		No	0.015		No
Chrysene	2,100	0.094		No	0.053		No
Dibenz(a,h)anthracene	2.10	0.085	U	No	0.078	U	No
Indeno(1,2,3-cd)pyrene	21.0	0.089		No	0.06		No
Pyrene	23,000	0.1		No	0.04		No
1,2,4-Trichlorobenzene	110	0.42	U	No	0.39	U	No
1,2-Dichlorobenzene	9,300	0.085	U	No	0.078	U	No
1,3-Dichlorobenzene		0.085	U	No	0.078	U	No
1,4-Dichlorobenzene	11	0.085	U	No	0.078	U	No
2,2'-oxybis(1-Chloropropane)		0.085	U	No	0.078	U	No
2,4,5-Trichlorophenol	82,000	0.42	U	No	0.39	U	No
2,4,6-Trichlorophenol	210	0.42	U	No	0.39	U	No
2,4-Dichlorophenol	2,500	0.085	U	No	0.078	U	No
2,4-Dimethylphenol	16,000	0.42	U	No	0.39	U	No
2,4-Dinitrophenol	1,600	1.9	U	No	1.8	U	No
2,4-Dinitrotoluene	7.4	0.42	U	No	0.39	U	No
2,6-Dinitrotoluene	1.5	0.42	U	No	0.39	U	No
2-Chloronaphthalene	60,000	0.085	U	No	0.078	U	No
2-Chlorophenol	5,800	0.42	U	No	0.39	U	No
2-Methylphenol	41,000	0.42	U	No	0.39	U	No
2-Nitrophenol		0.42	U	No	0.39	U	No
3,3'-Dichlorobenzidine	5.1	0.42	U	No	0.39	U	No
3,3'-Dimethylbenzidine		2.1	U	No	2	U	No
3-Methylphenol & 4-Methylphenol	41	0.42	U	No	0.39	U	No
4,6-Dinitro-2-methylphenol		1.9	U	No	1.8	U	No
4-Bromophenyl phenyl ether		0.42	U	No	0.39	U	No
4-Chloro-3-methylphenol		0.42	U	No	0.39	U	No
4-Chlorophenyl phenyl ether		0.42	U	No	0.39	U	No
4-Nitrophenol		0.42	U	No	0.39	U	No
bis(2-Chloroethoxy)methane	2,500	0.42	U	No	0.39	U	No
bis(2-Chloroethyl) ether	1	0.085	U	No	0.078	U	No

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-07			HI-SS-08		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
bis(2-Ethylhexyl) phthalate	160	0.42	U	No	0.39	U	No
Butyl benzyl phthalate		0.42	U	No	0.39	U	No
Dibenzofuran		0.42	U	No	0.39	U	No
Diethyl phthalate	660,000	0.42	U	No	0.39	U	No
Dimethyl phthalate		0.42	U	No	0.39	U	No
Di-n-butyl phthalate	82,000	0.42	U	No	0.39	U	No
Di-n-octyl phthalate	8,200	0.42	U	No	0.39	U	No
Hexachlorobenzene	0.96	0.085	U	No	0.078	U	No
Hexachlorobutadiene	5.3	0.085	U	No	0.078	U	No
Hexachlorocyclopentadiene	7.5	0.42	U	No	0.39	U	No
Hexachloroethane	8	0.42	U	No	0.39	U	No
Isophorone	2,400	0.42	U	No	0.39	U	No
Nitrobenzene	22	0.085	U	No	0.078	U	No
Pentachloroethane		0.42	U	No	0.39	U	No
Pentachlorophenol	4	0.13	U	No	0.12	U	No
Phenol	250,000	0.085	U	No	0.078	U	No
Pyridine		0.42	U	No	0.39	U	No

B = The analyte was not detected substantially above the level reported in laboratory or field blanks

J = The analyte was positively detected; the associated numerical value is approximate

K = The analyte was positively detected; the reported value may be biased high

L = The analyte was positively detected; the reported value may be biased low

U = The analyte was not detected above the reporting limit

UJ = The analyte's reporting limit is approximate

UL = The analyte was not detected above the reporting limit; the reporting limit may be biased low

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-09			HI-SS-10		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Antimony	470	4		No	5.7		No
Arsenic	3	23.6		Yes	29.1		Yes
Barium	220,000	13.7		No	25.7		No
Beryllium	2,300	0.49		No	0.78		No
Cadmium	980	6.9	K	No	19	K	No
Chromium		280		No	459		No
Cobalt	350	9.6		No	12		No
Copper	47,000	130		No	163		No
Cyanide, Total	150	35.7		No	132		No
Lead	800	2,090		Yes	3,350		Yes
Mercury	350	0.51	L	No	0.64	L	No
Nickel	22,000	93.4		No	133		No
Selenium	5,800	8.5		No	7.9		No
Silver	5,800	5.3		No	8.4		No
Sulfide, Total		49.3	U	No	36.5	U	No
Thallium	12	7.8		No	10.8		No
Tin		138		No	336		No
Vanadium	5,800	87.7		No	124		No
Zinc	350,000	7,990	J	No	10,900	J	No
Aroclor 1016	27	0.027	U	No	0.02	U	No
Aroclor 1221	0.72	0.027	U	No	0.02	U	No
Aroclor 1232	0.72	0.027	U	No	0.02	U	No
Aroclor 1242	0.97	0.027	U	No	0.02	U	No
Aroclor 1248	0.94	0.027	U	No	0.02	U	No
Aroclor 1254	0.97	0.027	U	No	0.02	U	No
Aroclor 1260	0.99	0.052		No	0.062		No
1,1,1,2-Tetrachloroethane		0.0086	U	No	0.0054	U	No
1,1,1-Trichloroethane	36,000	0.0086	U	No	0.0054	U	No
1,1,2,2-Tetrachloroethane	2.7	0.0086	U	No	0.0054	U	No
1,1,2-Trichloroethane	5	0.0086	U	No	0.0054	U	No
1,1-Dichloroethane	16	0.0086	U	No	0.0054	U	No
1,1-Dichloroethene	1,000	0.0086	U	No	0.0054	U	No
1,2-Dichloroethane	2	0.0086	U	No	0.0054	U	No
1,2-Dichloropropane	4.4	0.0086	U	No	0.0054	U	No
2-Butanone	190,000	0.0086	U	No	0.0054	U	No
2-Hexanone	1,300	0.0086	U	No	0.0054	U	No
4-Methyl-2-pentanone	56,000	0.0086	U	No	0.0054	U	No
Acetone	670,000	0.034	U	No	0.022	U	No
Benzene	5.1	0.0086	U	No	0.0054	U	No
Bromoform	86	0.0086	U	No	0.0054	U	No
Carbon disulfide	3,500	0.0086	U	No	0.0054	U	No
Carbon tetrachloride	2.9	0.0086	U	No	0.0054	U	No
Chlorobenzene	1,300	0.0086	U	No	0.0054	U	No
Chloroethane	57,000	0.0086	U	No	0.0054	U	No
Chloroform	1.4	0.0086	U	No	0.0054	U	No
cis-1,3-Dichloropropane		0.0086	U	No	0.0054	U	No
Ethylbenzene	25	0.0086	U	No	0.0054	U	No
Methylene chloride	1,000	0.0037	B	No	0.0025	B	No

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-09			HI-SS-10		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Tetrachloroethene	100	0.0086	U	No	0.0054	U	No
Toluene	47,000	0.0086	U	No	0.0054	U	No
trans-1,2-Dichloroethene	23,000	0.0086	U	No	0.0054	U	No
trans-1,3-Dichloropropane		0.0086	U	No	0.0054	U	No
Trichloroethene	6	0.0086	U	No	0.0054	U	No
Vinyl chloride	1.7	0.0086	U	No	0.0054	U	No
Xylenes (total)	2,800	0.026	U	No	0.016	U	No
2-Methylnaphthalene	3,000	0.11	U	No	0.082	U	No
Acenaphthene	45,000	0.11	U	No	0.082	U	No
Acenaphthylene	45,000	0.11	U	No	0.082	U	No
Anthracene	230,000	0.11	U	No	0.082	U	No
Fluoranthene	30,000	0.039		No	0.037		No
Fluorene	30,000	0.11	U	No	0.082	U	No
Naphthalene	17	0.11	U	No	0.082	U	No
Phenanthrene		0.044		No	0.032		No
Benzo(a)anthracene	21.0	0.044		No	0.05		No
Benzo(a)pyrene	2.10	0.11	U	No	0.043		No
Benzo(b)fluoranthene	21.0	0.084		No	0.097		No
Benzo(ghi)perylene		0.11	U	No	0.082	U	No
Benzo(k)fluoranthene	210	0.11	U	No	0.022		No
Chrysene	2,100	0.055		No	0.082		No
Dibenz(a,h)anthracene	2.10	0.11	U	No	0.082	U	No
Indeno(1,2,3-cd)pyrene	21.0	0.11	U	No	0.026		No
Pyrene	23,000	0.052		No	0.045		No
1,2,4-Trichlorobenzene	110	0.54	U	No	0.57	U	No
1,2-Dichlorobenzene	9,300	0.11	U	No	0.12	U	No
1,3-Dichlorobenzene		0.11	U	No	0.12	U	No
1,4-Dichlorobenzene	11	0.11	U	No	0.12	U	No
2,2'-oxybis(1-Chloropropane)		0.11	U	No	0.12	U	No
2,4,5-Trichlorophenol	82,000	0.54	U	No	0.57	U	No
2,4,6-Trichlorophenol	210	0.54	U	No	0.57	U	No
2,4-Dichlorophenol	2,500	0.11	U	No	0.12	U	No
2,4-Dimethylphenol	16,000	0.54	U	No	0.57	U	No
2,4-Dinitrophenol	1,600	2.5	U	No	2.6	U	No
2,4-Dinitrotoluene	7.4	0.54	U	No	0.57	U	No
2,6-Dinitrotoluene	1.5	0.54	U	No	0.57	U	No
2-Chloronaphthalene	60,000	0.11	U	No	0.12	U	No
2-Chlorophenol	5,800	0.54	U	No	0.57	U	No
2-Methylphenol	41,000	0.54	U	No	0.57	U	No
2-Nitrophenol		0.54	U	No	0.57	U	No
3,3'-Dichlorobenzidine	5.1	0.54	U	No	0.57	U	No
3,3'-Dimethylbenzidine		2.7	U	No	2	U	No
3-Methylphenol & 4-Methylphenol	41	0.54	U	No	0.4	U	No
4,6-Dinitro-2-methylphenol		2.5	U	No	1.8	U	No
4-Bromophenyl phenyl ether		0.54	U	No	0.4	U	No
4-Chloro-3-methylphenol		0.54	U	No	0.4	U	No
4-Chlorophenyl phenyl ether		0.54	U	No	0.4	U	No
4-Nitrophenol		0.54	U	No	0.4	U	No
bis(2-Chloroethoxy)methane	2,500	0.54	U	No	0.4	U	No
bis(2-Chloroethyl) ether	1	0.11	U	No	0.082	U	No

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-09			HI-SS-10		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
bis(2-Ethylhexyl) phthalate	160	0.54	U	No	0.4	U	No
Butyl benzyl phthalate		0.54	U	No	0.4	U	No
Dibenzofuran		0.54	U	No	0.4	U	No
Diethyl phthalate	660,000	0.54	U	No	0.4	U	No
Dimethyl phthalate		0.54	U	No	0.4	U	No
Di-n-butyl phthalate	82,000	0.54	U	No	0.4	U	No
Di-n-octyl phthalate	8,200	0.54	U	No	0.4	U	No
Hexachlorobenzene	0.96	0.11	U	No	0.082	U	No
Hexachlorobutadiene	5.3	0.11	U	No	0.082	U	No
Hexachlorocyclopentadiene	7.5	0.54	U	No	0.4	U	No
Hexachloroethane	8	0.54	U	No	0.4	U	No
Isophorone	2,400	0.54	U	No	0.4	U	No
Nitrobenzene	22	0.11	U	No	0.082	U	No
Pentachloroethane		0.55	U	No	0.41	U	No
Pentachlorophenol	4	0.16	U	No	0.12	U	No
Phenol	250,000	0.11	U	No	0.082	U	No
Pyridine		0.54	U	No	0.4	U	No

B = The analyte was not detected substantially above the level reported in laboratory or field blanks

J = The analyte was positively detected; the associated numerical value is approximate

K = The analyte was positively detected; the reported value may be biased high

L = The analyte was positively detected; the reported value may be biased low

U = The analyte was not detected above the reporting limit

UJ = The analyte's reporting limit is approximate

UL = The analyte was not detected above the reporting limit; the reporting limit may be biased low



**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-11			HI-SS-12		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Antimony	470	5.5		No	1.5		No
Arsenic	3	47.2		Yes	26.5		Yes
Barium	220,000	320		No	17.7		No
Beryllium	2,300	0.37		No	0.26	B	No
Cadmium	980	68	K	No	13.9	K	No
Chromium		5,360		No	247		No
Cobalt	350	16.9		No	9.4		No
Copper	47,000	621		No	150		No
Cyanide, Total	150	33.4		No	55.9		No
Lead	800	456		No	876		Yes
Mercury	350	1.2	L	No	0.35	L	No
Nickel	22,000	269		No	93		No
Selenium	5,800	4.3		No	4.9		No
Silver	5,800	8.4		No	7.6		No
Sulfide, Total		52.5	U	No	35.4	U	No
Thallium	12	8.7	U	No	11.8	U	No
Tin		2,180		No	51.3		No
Vanadium	5,800	42		No	46.1		No
Zinc	350,000	13,400	J	No	9,560	J	No
Aroclor 1016	27	0.029	U	No	0.02	U	No
Aroclor 1221	0.72	0.029	U	No	0.02	U	No
Aroclor 1232	0.72	0.029	U	No	0.02	U	No
Aroclor 1242	0.97	0.029	U	No	0.02	U	No
Aroclor 1248	0.94	0.029	U	No	0.02	U	No
Aroclor 1254	0.97	0.029	U	No	0.02	U	No
Aroclor 1260	0.99	1		Yes	0.014		No
1,1,1,2-Tetrachloroethane		0.016	U	No	0.0061	U	No
1,1,1-Trichloroethane	36,000	0.016	U	No	0.0061	U	No
1,1,2,2-Tetrachloroethane	2.7	0.016	U	No	0.0061	U	No
1,1,2-Trichloroethane	5	0.016	U	No	0.0061	U	No
1,1-Dichloroethane	16	0.016	U	No	0.0061	U	No
1,1-Dichloroethene	1,000	0.016	U	No	0.0061	U	No
1,2-Dichloroethane	2	0.016	U	No	0.0061	U	No
1,2-Dichloropropane	4.4	0.016	U	No	0.0061	U	No
2-Butanone	190,000	0.016	U	No	0.0061	U	No
2-Hexanone	1,300	0.016	U	No	0.0061	U	No
4-Methyl-2-pentanone	56,000	0.016	U	No	0.0061	U	No
Acetone	670,000	0.063	U	No	0.024	U	No
Benzene	5.1	0.016	U	No	0.0061	U	No
Bromoform	86	0.016	U	No	0.0061	U	No
Carbon disulfide	3,500	0.016	U	No	0.0061	U	No
Carbon tetrachloride	2.9	0.016	U	No	0.0061	U	No
Chlorobenzene	1,300	0.016	U	No	0.0061	U	No
Chloroethane	57,000	0.016	U	No	0.0061	U	No
Chloroform	1.4	0.016	U	No	0.0061	U	No
cis-1,3-Dichloropropane		0.016	U	No	0.0061	U	No
Ethylbenzene	25	0.016	U	No	0.0061	U	No
Methylene chloride	1,000	0.0035	B	No	0.0029	B	No

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-11			HI-SS-12		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Tetrachloroethene	100	0.016	U	No	0.0061	U	No
Toluene	47,000	0.016	U	No	0.0061	U	No
trans-1,2-Dichloroethene	23,000	0.016	U	No	0.0061	U	No
trans-1,3-Dichloropropane		0.016	U	No	0.0061	U	No
Trichloroethene	6	0.016	U	No	0.0061	U	No
Vinyl chloride	1.7	0.016	U	No	0.0061	U	No
Xylenes (total)	2,800	0.047	U	No	0.018	U	No
2-Methylnaphthalene	3,000	0.12	U	No	0.079	U	No
Acenaphthene	45,000	0.12	U	No	0.079	U	No
Acenaphthylene	45,000	0.12	U	No	0.079	U	No
Anthracene	230,000	0.12	U	No	0.079	U	No
Fluoranthene	30,000	0.042		No	0.079	U	No
Fluorene	30,000	0.12	U	No	0.079	U	No
Naphthalene	17	0.028		No	0.079	U	No
Phenanthrene		0.043		No	0.079	U	No
Benzo(a)anthracene	21.0	0.12	U	No	0.079	U	No
Benzo(a)pyrene	2.10	0.12	U	No	0.079	U	No
Benzo(b)fluoranthene	21.0	0.12	U	No	0.079	U	No
Benzo(ghi)perylene		0.12	U	No	0.079	U	No
Benzo(k)fluoranthene	210	0.12	U	No	0.079	U	No
Chrysene	2,100	0.12	U	No	0.079	U	No
Dibenz(a,h)anthracene	2.10	0.12	U	No	0.079	U	No
Indeno(1,2,3-cd)pyrene	21.0	0.12	U	No	0.079	U	No
Pyrene	23,000	0.12	U	No	0.079	U	No
1,2,4-Trichlorobenzene	110	0.57	U	No	0.39	U	No
1,2-Dichlorobenzene	9,300	0.12	U	No	0.079	U	No
1,3-Dichlorobenzene		0.12	U	No	0.079	U	No
1,4-Dichlorobenzene	11	0.12	U	No	0.079	U	No
2,2'-oxybis(1-Chloropropane)		0.12	U	No	0.079	U	No
2,4,5-Trichlorophenol	82,000	0.57	U	No	0.39	U	No
2,4,6-Trichlorophenol	210	0.57	U	No	0.39	U	No
2,4-Dichlorophenol	2,500	0.12	U	No	0.079	U	No
2,4-Dimethylphenol	16,000	0.57	U	No	0.39	U	No
2,4-Dinitrophenol	1,600	2.6	U	No	1.8	U	No
2,4-Dinitrotoluene	7.4	0.57	U	No	0.39	U	No
2,6-Dinitrotoluene	1.5	0.57	U	No	0.39	U	No
2-Chloronaphthalene	60,000	0.12	U	No	0.079	U	No
2-Chlorophenol	5,800	0.57	U	No	0.39	U	No
2-Methylphenol	41,000	0.57	U	No	0.39	U	No
2-Nitrophenol		0.57	U	No	0.39	U	No
3,3'-Dichlorobenzidine	5.1	0.57	U	No	0.39	U	No
3,3'-Dimethylbenzidine		2.9	U	No	2	U	No
3-Methylphenol & 4-Methylphenol	41	0.57	U	No	0.39	U	No
4,6-Dinitro-2-methylphenol		2.6	U	No	1.8	U	No
4-Bromophenyl phenyl ether		0.57	U	No	0.39	U	No
4-Chloro-3-methylphenol		0.57	U	No	0.39	U	No
4-Chlorophenyl phenyl ether		0.57	U	No	0.39	U	No
4-Nitrophenol		0.57	U	No	0.39	U	No
bis(2-Chloroethoxy)methane	2,500	0.57	U	No	0.39	U	No
bis(2-Chloroethyl) ether	1	0.12	U	No	0.079	U	No

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-11			HI-SS-12		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
bis(2-Ethylhexyl) phthalate	160	0.57	U	No	0.39	U	No
Butyl benzyl phthalate		0.57	U	No	0.39	U	No
Dibenzofuran		0.57	U	No	0.39	U	No
Diethyl phthalate	660,000	0.57	U	No	0.39	U	No
Dimethyl phthalate		0.57	U	No	0.39	U	No
Di-n-butyl phthalate	82,000	0.57	U	No	0.39	U	No
Di-n-octyl phthalate	8,200	0.57	U	No	0.39	U	No
Hexachlorobenzene	0.96	0.12	U	No	0.079	U	No
Hexachlorobutadiene	5.3	0.12	U	No	0.079	U	No
Hexachlorocyclopentadiene	7.5	0.57	U	No	0.39	U	No
Hexachloroethane	8	0.57	U	No	0.39	U	No
Isophorone	2,400	0.57	U	No	0.39	U	No
Nitrobenzene	22	0.12	U	No	0.079	U	No
Pentachloroethane		0.58	U	No	0.39	U	No
Pentachlorophenol	4	0.17	U	No	0.12	U	No
Phenol	250,000	0.12	U	No	0.079	U	No
Pyridine		0.57	U	No	0.39	U	No

B = The analyte was not detected substantially above the level reported in laboratory or field blanks

J = The analyte was positively detected; the associated numerical value is approximate

K = The analyte was positively detected; the reported value may be biased high

L = The analyte was positively detected; the reported value may be biased low

U = The analyte was not detected above the reporting limit

UJ = The analyte's reporting limit is approximate

UL = The analyte was not detected above the reporting limit; the reporting limit may be biased low

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-13			HI-SS-14		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Antimony	470	1.6		No	12.4	U	No
Arsenic	3	33.8		Yes	26.2		Yes
Barium	220,000	37.2		No	29.4		No
Beryllium	2,300	0.97		No	0.47		No
Cadmium	980	16.7	K	No	14.6	K	No
Chromium		151		No	161		No
Cobalt	350	8.2		No	9.5		No
Copper	47,000	179		No	151		No
Cyanide, Total	150	74.1		No	24.6		No
Lead	800	1,860		Yes	963		Yes
Mercury	350	3	L	No	0.1	L	No
Nickel	22,000	64.3		No	44.6		No
Selenium	5,800	8.2		No	5		No
Silver	5,800	9		No	7.7		No
Sulfide, Total		35.9	U	No	37.2	U	No
Thallium	12	9.1		No	12.4	U	No
Tin		102		No	36.5		No
Vanadium	5,800	40.6		No	47.2		No
Zinc	350,000	7,060	J	No	8,960	J	No
Aroclor 1016	27	0.02	U	No	0.021	U	No
Aroclor 1221	0.72	0.02	U	No	0.021	U	No
Aroclor 1232	0.72	0.02	U	No	0.021	U	No
Aroclor 1242	0.97	0.02	U	No	0.021	U	No
Aroclor 1248	0.94	0.02	U	No	0.0041		No
Aroclor 1254	0.97	0.02	U	No	0.021	U	No
Aroclor 1260	0.99	0.061		No	0.01		No
1,1,1,2-Tetrachloroethane		0.0059	U	No	0.0065	UJ	No
1,1,1-Trichloroethane	36,000	0.0059	U	No	0.0065	UJ	No
1,1,2,2-Tetrachloroethane	2.7	0.0059	U	No	0.0065	UJ	No
1,1,2-Trichloroethane	5	0.0059	U	No	0.0065	UJ	No
1,1-Dichloroethane	16	0.0059	U	No	0.0065	UJ	No
1,1-Dichloroethene	1,000	0.0059	U	No	0.0065	UJ	No
1,2-Dichloroethane	2	0.0059	U	No	0.0065	UJ	No
1,2-Dichloropropane	4.4	0.0059	U	No	0.0065	UJ	No
2-Butanone	190,000	0.0059	U	No	0.0065	UJ	No
2-Hexanone	1,300	0.0059	U	No	0.0065	UJ	No
4-Methyl-2-pentanone	56,000	0.0059	U	No	0.0065	UJ	No
Acetone	670,000	0.024	U	No	0.026	UJ	No
Benzene	5.1	0.0059	U	No	0.0065	UJ	No
Bromoform	86	0.0059	U	No	0.0065	UJ	No
Carbon disulfide	3,500	0.0059	U	No	0.0065	UJ	No
Carbon tetrachloride	2.9	0.0059	U	No	0.0065	UJ	No
Chlorobenzene	1,300	0.0059	U	No	0.0065	UJ	No
Chloroethane	57,000	0.0059	U	No	0.0065	UJ	No
Chloroform	1.4	0.0059	U	No	0.0065	UJ	No
cis-1,3-Dichloropropane		0.0059	U	No	0.0065	UJ	No
Ethylbenzene	25	0.0059	U	No	0.0065	UJ	No
Methylene chloride	1,000	0.0025	B	No	0.0019	B	No

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-13			HI-SS-14		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Tetrachloroethene	100	0.0059	U	No	0.0065	UJ	No
Toluene	47,000	0.0059	U	No	0.0065	UJ	No
trans-1,2-Dichloroethene	23,000	0.0059	U	No	0.0065	UJ	No
trans-1,3-Dichloropropane		0.0059	U	No	0.0065	UJ	No
Trichloroethene	6	0.0059	U	No	0.0065	UJ	No
Vinyl chloride	1.7	0.0059	U	No	0.0065	UJ	No
Xylenes (total)	2,800	0.018	U	No	0.02	UJ	No
2-Methylnaphthalene	3,000	0.08	U	No	0.083	U	No
Acenaphthene	45,000	0.08	U	No	0.083	U	No
Acenaphthylene	45,000	0.08	U	No	0.083	U	No
Anthracene	230,000	0.08	U	No	0.083	U	No
Fluoranthene	30,000	0.043		No	0.083	U	No
Fluorene	30,000	0.08	U	No	0.083	U	No
Naphthalene	17	0.08	U	No	0.083	U	No
Phenanthrene		0.046		No	0.083	U	No
Benzo(a)anthracene	21.0	0.044		No	0.083	U	No
Benzo(a)pyrene	2.10	0.045		No	0.083	U	No
Benzo(b)fluoranthene	21.0	0.08		No	0.083	U	No
Benzo(ghi)perylene		0.13		No	0.083	U	No
Benzo(k)fluoranthene	210	0.037		No	0.083	U	No
Chrysene	2,100	0.059		No	0.083	U	No
Dibenz(a,h)anthracene	2.10	0.08	U	No	0.083	U	No
Indeno(1,2,3-cd)pyrene	21.0	0.091		No	0.083	U	No
Pyrene	23,000	0.051		No	0.083	U	No
1,2,4-Trichlorobenzene	110	0.4	U	No	0.41	U	No
1,2-Dichlorobenzene	9,300	0.08	U	No	0.083	U	No
1,3-Dichlorobenzene		0.08	U	No	0.083	U	No
1,4-Dichlorobenzene	11	0.08	U	No	0.083	U	No
2,2'-oxybis(1-Chloropropane)		0.08	U	No	0.083	U	No
2,4,5-Trichlorophenol	82,000	0.4	U	No	0.41	U	No
2,4,6-Trichlorophenol	210	0.4	U	No	0.41	U	No
2,4-Dichlorophenol	2,500	0.08	U	No	0.083	U	No
2,4-Dimethylphenol	16,000	0.4	U	No	0.41	U	No
2,4-Dinitrophenol	1,600	1.8	U	No	1.9	U	No
2,4-Dinitrotoluene	7.4	0.4	U	No	0.41	U	No
2,6-Dinitrotoluene	1.5	0.4	U	No	0.41	U	No
2-Chloronaphthalene	60,000	0.08	U	No	0.083	U	No
2-Chlorophenol	5,800	0.4	U	No	0.41	U	No
2-Methylphenol	41,000	0.4	U	No	0.41	U	No
2-Nitrophenol		0.4	U	No	0.41	U	No
3,3'-Dichlorobenzidine	5.1	0.4	U	No	0.41	U	No
3,3'-Dimethylbenzidine		2	U	No	2.1	U	No
3-Methylphenol & 4-Methylphenol	41	0.4	U	No	0.41	U	No
4,6-Dinitro-2-methylphenol		1.8	U	No	1.9	U	No
4-Bromophenyl phenyl ether		0.4	U	No	0.41	U	No
4-Chloro-3-methylphenol		0.4	U	No	0.41	U	No
4-Chlorophenyl phenyl ether		0.4	U	No	0.41	U	No
4-Nitrophenol		0.4	U	No	0.41	U	No
bis(2-Chloroethoxy)methane	2,500	0.4	U	No	0.41	U	No
bis(2-Chloroethyl) ether	1	0.08	U	No	0.083	U	No

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-13			HI-SS-14		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
bis(2-Ethylhexyl) phthalate	160	0.4	U	No	0.41	U	No
Butyl benzyl phthalate		0.4	U	No	0.41	U	No
Dibenzofuran		0.4	U	No	0.41	U	No
Diethyl phthalate	660,000	0.4	U	No	0.41	U	No
Dimethyl phthalate		0.4	U	No	0.41	U	No
Di-n-butyl phthalate	82,000	0.4	U	No	0.41	U	No
Di-n-octyl phthalate	8,200	0.4	U	No	0.41	U	No
Hexachlorobenzene	0.96	0.08	U	No	0.083	U	No
Hexachlorobutadiene	5.3	0.08	U	No	0.083	U	No
Hexachlorocyclopentadiene	7.5	0.4	U	No	0.41	U	No
Hexachloroethane	8	0.4	U	No	0.41	U	No
Isophorone	2,400	0.4	U	No	0.41	U	No
Nitrobenzene	22	0.08	U	No	0.083	U	No
Pentachloroethane		0.4	U	No	0.41	U	No
Pentachlorophenol	4	0.12	U	No	0.12	U	No
Phenol	250,000	0.08	U	No	0.083	U	No
Pyridine		0.4	U	No	0.41	U	No

B = The analyte was not detected substantially above the level reported in laboratory or field blanks

J = The analyte was positively detected; the associated numerical value is approximate

K = The analyte was positively detected; the reported value

L = The analyte was positively detected; the reported value

U = The analyte was not detected above the reporting limit

UJ = The analyte's reporting limit is approximate

UL = The analyte was not detected above the reporting limit; the reporting limit may be biased low

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-15			HI-SS-16		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Antimony	470	3.4		No	0.63		No
Arsenic	3	20.3		Yes	10.4		Yes
Barium	220,000	14.9		No	68.7		No
Beryllium	2,300	0.45		No	0.48		No
Cadmium	980	8.1	K	No	1.7	K	No
Chromium		327		No	526		No
Cobalt	350	11		No	7		No
Copper	47,000	170		No	79.2		No
Cyanide, Total	150	62.5		No	14.2		No
Lead	800	667		No	15,400		Yes
Mercury	350	0.4	L	No	0.25	L	No
Nickel	22,000	116		No	37.4		No
Selenium	5,800	7.9		No	2.6	U	No
Silver	5,800	5.9		No	2		No
Sulfide, Total		35.4	U	No	31.6	U	No
Thallium	12	11.8	U	No	5.3	U	No
Tin		59.9		No	1,580		No
Vanadium	5,800	120		No	485		No
Zinc	350,000	3,640	J	No	988	J	No
Aroclor 1016	27	0.02	U	No	0.017	U	No
Aroclor 1221	0.72	0.02	U	No	0.017	U	No
Aroclor 1232	0.72	0.02	U	No	0.017	U	No
Aroclor 1242	0.97	0.02	U	No	0.017	U	No
Aroclor 1248	0.94	0.02	U	No	0.065		No
Aroclor 1254	0.97	0.02	U	No	0.017	U	No
Aroclor 1260	0.99	0.029		No	0.14		No
1,1,1,2-Tetrachloroethane		0.0065	U	No	0.0072	U	No
1,1,1-Trichloroethane	36,000	0.0065	U	No	0.0072	U	No
1,1,2,2-Tetrachloroethane	2.7	0.0065	U	No	0.0072	U	No
1,1,2-Trichloroethane	5	0.0065	U	No	0.0072	U	No
1,1-Dichloroethane	16	0.0065	U	No	0.0072	U	No
1,1-Dichloroethene	1,000	0.0065	U	No	0.0072	U	No
1,2-Dichloroethane	2	0.0065	U	No	0.0072	U	No
1,2-Dichloropropane	4.4	0.0065	U	No	0.0072	U	No
2-Butanone	190,000	0.0065	U	No	0.0072	U	No
2-Hexanone	1,300	0.0065	U	No	0.0072	U	No
4-Methyl-2-pentanone	56,000	0.0065	U	No	0.0072	U	No
Acetone	670,000	0.026	U	No	0.029	U	No
Benzene	5.1	0.0065	U	No	0.0072	U	No
Bromoform	86	0.0065	U	No	0.0072	U	No
Carbon disulfide	3,500	0.0065	U	No	0.0072	U	No
Carbon tetrachloride	2.9	0.0065	U	No	0.0072	U	No
Chlorobenzene	1,300	0.0065	U	No	0.0072	U	No
Chloroethane	57,000	0.0065	U	No	0.0072	U	No
Chloroform	1.4	0.0065	U	No	0.0072	U	No
cis-1,3-Dichloropropane		0.0065	U	No	0.0072	U	No
Ethylbenzene	25	0.0065	U	No	0.0072	U	No
Methylene chloride	1,000	0.003	B	No	0.003	B	No

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-15			HI-SS-16		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Tetrachloroethene	100	0.0065	U	No	0.0072	U	No
Toluene	47,000	0.0065	U	No	0.0072	U	No
trans-1,2-Dichloroethene	23,000	0.0065	U	No	0.0072	U	No
trans-1,3-Dichloropropane		0.0065	U	No	0.0072	U	No
Trichloroethene	6	0.0065	U	No	0.0072	U	No
Vinyl chloride	1.7	0.0065	U	No	0.0072	U	No
Xylenes (total)	2,800	0.019	U	No	0.022	U	No
2-Methylnaphthalene	3,000	0.079	U	No	0.084		No
Acenaphthene	45,000	0.079	U	No	0.089		No
Acenaphthylene	45,000	0.079	U	No	1.7		No
Anthracene	230,000	0.079	U	No	0.51		No
Fluoranthene	30,000	0.079	U	No	4.4		No
Fluorene	30,000	0.079	U	No	0.099		No
Naphthalene	17	0.079	U	No	0.26		No
Phenanthrene		0.079	U	No	1.9		No
Benzo(a)anthracene	21.0	0.026		No	3		No
Benzo(a)pyrene	2.10	0.021		No	2.9		Yes
Benzo(b)fluoranthene	21.0	0.04		No	3.6		No
Benzo(ghi)perylene		0.079	U	No	3		No
Benzo(k)fluoranthene	210	0.015		No	1.6		No
Chrysene	2,100	0.032		No	3		No
Dibenz(a,h)anthracene	2.10	0.079	U	No	0.44		No
Indeno(1,2,3-cd)pyrene	21.0	0.079	U	No	2.6		No
Pyrene	23,000	0.079	U	No	5		No
1,2,4-Trichlorobenzene	110	0.39	U	No	0.69	U	No
1,2-Dichlorobenzene	9,300	0.079	U	No	0.14	U	No
1,3-Dichlorobenzene		0.079	U	No	0.14	U	No
1,4-Dichlorobenzene	11	0.079	U	No	0.14	U	No
2,2'-oxybis(1-Chloropropane)		0.079	U	No	0.14	U	No
2,4,5-Trichlorophenol	82,000	0.39	U	No	0.69	U	No
2,4,6-Trichlorophenol	210	0.39	U	No	0.69	U	No
2,4-Dichlorophenol	2,500	0.079	U	No	0.14	U	No
2,4-Dimethylphenol	16,000	0.39	U	No	0.69	U	No
2,4-Dinitrophenol	1,600	1.8	U	No	3.1	U	No
2,4-Dinitrotoluene	7.4	0.39	U	No	0.69	U	No
2,6-Dinitrotoluene	1.5	0.39	U	No	0.69	U	No
2-Chloronaphthalene	60,000	0.079	U	No	0.14	U	No
2-Chlorophenol	5,800	0.39	U	No	0.69	U	No
2-Methylphenol	41,000	0.39	U	No	0.69	U	No
2-Nitrophenol		0.39	U	No	0.69	U	No
3,3'-Dichlorobenzidine	5.1	0.39	U	No	0.69	U	No
3,3'-Dimethylbenzidine		2	U	No	3.5	U	No
3-Methylphenol & 4-Methylphenol	41	0.39	U	No	0.69	U	No
4,6-Dinitro-2-methylphenol		1.8	U	No	3.1	U	No
4-Bromophenyl phenyl ether		0.39	U	No	0.69	U	No
4-Chloro-3-methylphenol		0.39	U	No	0.69	U	No
4-Chlorophenyl phenyl ether		0.39	U	No	0.69	U	No
4-Nitrophenol		0.39	U	No	0.69	U	No
bis(2-Chloroethoxy)methane	2,500	0.39	U	No	0.69	U	No
bis(2-Chloroethyl) ether	1	0.079	U	No	0.14	U	No



**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-15			HI-SS-16		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
bis(2-Ethylhexyl) phthalate	160	0.39	U	No	0.69	U	No
Butyl benzyl phthalate		0.39	U	No	0.69	U	No
Dibenzofuran		0.39	U	No	0.12		No
Diethyl phthalate	660,000	0.39	U	No	0.69	U	No
Dimethyl phthalate		0.39	U	No	0.69	U	No
Di-n-butyl phthalate	82,000	0.39	U	No	0.69	U	No
Di-n-octyl phthalate	8,200	0.39	U	No	0.69	U	No
Hexachlorobenzene	0.96	0.079	U	No	0.14	U	No
Hexachlorobutadiene	5.3	0.079	U	No	0.14	U	No
Hexachlorocyclopentadiene	7.5	0.39	U	No	0.69	U	No
Hexachloroethane	8	0.39	U	No	0.69	U	No
Isophorone	2,400	0.39	U	No	0.69	U	No
Nitrobenzene	22	0.079	U	No	0.14	U	No
Pentachloroethane		0.39	U	No	0.69	U	No
Pentachlorophenol	4	0.12	U	No	0.21	U	No
Phenol	250,000	0.079	U	No	0.14	U	No
Pyridine		0.39	U	No	0.69	U	No

B = The analyte was not detected substantially above the level reported in laboratory or field blanks

J = The analyte was positively detected; the associated numerical value is approximate

K = The analyte was positively detected; the reported value may be biased high

L = The analyte was positively detected; the reported value may be biased low

U = The analyte was not detected above the reporting limit

UJ = The analyte's reporting limit is approximate

UL = The analyte was not detected above the reporting limit; the reporting limit may be biased low

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-17			HI-SS-18		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Antimony	470	2.1	U	No	1.3	U	No
Arsenic	3	3.8		Yes	9.2		Yes
Barium	220,000	120		No	39.8		No
Beryllium	2,300	1.4		No	0.85		No
Cadmium	980	1.1	K	No	0.31	K	No
Chromium		430		No	162		No
Cobalt	350	2.4		No	6.5		No
Copper	47,000	65		No	32.1		No
Cyanide, Total	150	4.3		No	1.2		No
Lead	800	155		No	53.7		No
Mercury	350	0.03	L	No	0.16	L	No
Nickel	22,000	18.6		No	18		No
Selenium	5,800	2.6	U	No	0.92		No
Silver	5,800	2.5		No	0.34	B	No
Sulfide, Total		233		No	37.6	U	No
Thallium	12	5.2	U	No	1.3	U	No
Tin		146		No	273		No
Vanadium	5,800	209		No	48.8		No
Zinc	350,000	768	J	No	194	J	No
Aroclor 1016	27	0.017	U	No	0.021	U	No
Aroclor 1221	0.72	0.017	U	No	0.021	U	No
Aroclor 1232	0.72	0.017	U	No	0.021	U	No
Aroclor 1242	0.97	0.017	U	No	0.021	U	No
Aroclor 1248	0.94	0.024		No	0.041		No
Aroclor 1254	0.97	0.017	U	No	0.021	U	No
Aroclor 1260	0.99	0.73		No	0.075		No
1,1,1,2-Tetrachloroethane		0.0075	U	No	0.012	U	No
1,1,1-Trichloroethane	36,000	0.0075	U	No	0.012	U	No
1,1,2,2-Tetrachloroethane	2.7	0.0075	U	No	0.012	U	No
1,1,2-Trichloroethane	5	0.0075	U	No	0.012	U	No
1,1-Dichloroethane	16	0.0075	U	No	0.012	U	No
1,1-Dichloroethene	1,000	0.0075	U	No	0.012	U	No
1,2-Dichloroethane	2	0.0075	U	No	0.012	U	No
1,2-Dichloropropane	4.4	0.0075	U	No	0.012	U	No
2-Butanone	190,000	0.0075	U	No	0.012	U	No
2-Hexanone	1,300	0.0075	U	No	0.012	U	No
4-Methyl-2-pentanone	56,000	0.0075	U	No	0.012	U	No
Acetone	670,000	0.03	U	No	0.048	U	No
Benzene	5.1	0.0075	U	No	0.012	U	No
Bromoform	86	0.0075	U	No	0.012	U	No
Carbon disulfide	3,500	0.0075	U	No	0.012	U	No
Carbon tetrachloride	2.9	0.0075	U	No	0.012	U	No
Chlorobenzene	1,300	0.0075	U	No	0.012	U	No
Chloroethane	57,000	0.0075	U	No	0.012	U	No
Chloroform	1.4	0.0075	U	No	0.012	U	No
cis-1,3-Dichloropropane		0.0075	U	No	0.012	U	No
Ethylbenzene	25	0.0075	U	No	0.012	U	No
Methylene chloride	1,000	0.0035	B	No	0.0041	B	No

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-17			HI-SS-18		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Tetrachloroethene	100	0.0075	U	No	0.012	U	No
Toluene	47,000	0.0075	U	No	0.012	U	No
trans-1,2-Dichloroethene	23,000	0.0075	U	No	0.012	U	No
trans-1,3-Dichloropropane		0.0075	U	No	0.012	U	No
Trichloroethene	6	0.0075	U	No	0.012	U	No
Vinyl chloride	1.7	0.0075	U	No	0.012	U	No
Xylenes (total)	2,800	0.023	U	No	0.036	U	No
2-Methylnaphthalene	3,000	0.11		No	0.084	U	No
Acenaphthene	45,000	0.14	U	No	0.084	U	No
Acenaphthylene	45,000	0.7		No	0.084	U	No
Anthracene	230,000	0.2		No	0.084	U	No
Fluoranthene	30,000	0.36		No	0.034		No
Fluorene	30,000	0.14	U	No	0.084	U	No
Naphthalene	17	0.18		No	0.084	U	No
Phenanthrene		0.27		No	0.029		No
Benzo(a)anthracene	21.0	0.3		No	0.021		No
Benzo(a)pyrene	2.10	0.43		No	0.084	U	No
Benzo(b)fluoranthene	21.0	0.54		No	0.084	U	No
Benzo(ghi)perylene		1.1		No	0.084	U	No
Benzo(k)fluoranthene	210	0.23		No	0.084	U	No
Chrysene	2,100	0.39		No	0.026		No
Dibenz(a,h)anthracene	2.10	0.14	U	No	0.084	U	No
Indeno(1,2,3-cd)pyrene	21.0	0.67		No	0.084	U	No
Pyrene	23,000	0.54		No	0.048		No
1,2,4-Trichlorobenzene	110	0.69	U	No	0.41	U	No
1,2-Dichlorobenzene	9,300	0.14	U	No	0.084	U	No
1,3-Dichlorobenzene		0.14	U	No	0.084	U	No
1,4-Dichlorobenzene	11	0.14	U	No	0.084	U	No
2,2'-oxybis(1-Chloropropane)		0.14	U	No	0.084	U	No
2,4,5-Trichlorophenol	82,000	0.69	U	No	0.41	U	No
2,4,6-Trichlorophenol	210	0.69	U	No	0.41	U	No
2,4-Dichlorophenol	2,500	0.14	U	No	0.084	U	No
2,4-Dimethylphenol	16,000	0.69	U	No	0.41	U	No
2,4-Dinitrophenol	1,600	3.1	U	No	1.9	U	No
2,4-Dinitrotoluene	7.4	0.69	U	No	0.41	U	No
2,6-Dinitrotoluene	1.5	0.69	U	No	0.41	U	No
2-Chloronaphthalene	60,000	0.14	U	No	0.084	U	No
2-Chlorophenol	5,800	0.69	U	No	0.41	U	No
2-Methylphenol	41,000	0.69	U	No	0.41	U	No
2-Nitrophenol		0.69	U	No	0.41	U	No
3,3'-Dichlorobenzidine	5.1	0.69	U	No	0.41	U	No
3,3'-Dimethylbenzidine		3.5	U	No	2.1	U	No
3-Methylphenol & 4-Methylphenol	41	0.69	U	No	0.41	U	No
4,6-Dinitro-2-methylphenol		3.1	U	No	1.9	U	No
4-Bromophenyl phenyl ether		0.69	U	No	0.41	U	No
4-Chloro-3-methylphenol		0.69	U	No	0.41	U	No
4-Chlorophenyl phenyl ether		0.69	U	No	0.41	U	No
4-Nitrophenol		0.69	U	No	0.41	U	No
bis(2-Chloroethoxy)methane	2,500	0.69	U	No	0.41	U	No
bis(2-Chloroethyl) ether	1	0.14	U	No	0.084	U	No

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-17			HI-SS-18		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
bis(2-Ethylhexyl) phthalate	160	0.69	U	No	0.41	U	No
Butyl benzyl phthalate		0.69	U	No	0.41	U	No
Dibenzofuran		0.041		No	0.41	U	No
Diethyl phthalate	660,000	0.69	U	No	0.41	U	No
Dimethyl phthalate		0.69	U	No	0.41	U	No
Di-n-butyl phthalate	82,000	0.69	U	No	0.41	U	No
Di-n-octyl phthalate	8,200	0.69	U	No	0.41	U	No
Hexachlorobenzene	0.96	0.14	U	No	0.084	U	No
Hexachlorobutadiene	5.3	0.14	U	No	0.084	U	No
Hexachlorocyclopentadiene	7.5	0.69	U	No	0.41	U	No
Hexachloroethane	8	0.69	U	No	0.41	U	No
Isophorone	2,400	0.69	U	No	0.41	U	No
Nitrobenzene	22	0.14	U	No	0.084	U	No
Pentachloroethane		0.69	U	No	0.42	U	No
Pentachlorophenol	4	0.21	U	No	0.13	U	No
Phenol	250,000	0.14	U	No	0.084	U	No
Pyridine		0.69	U	No	0.41	U	No

B = The analyte was not detected substantially above the level reported in laboratory or field blanks

J = The analyte was positively detected; the associated numerical value is approximate

K = The analyte was positively detected; the reported value may be biased high

L = The analyte was positively detected; the reported value may be biased low

U = The analyte was not detected above the reporting limit

UJ = The analyte's reporting limit is approximate

UL = The analyte was not detected above the reporting limit; the reporting limit may be biased low

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-19			HI-SS-20		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Antimony	470	1	U	No	1.1	U	No
Arsenic	3	1.7		No	1.7		No
Barium	220,000	209		No	129		No
Beryllium	2,300	5		No	2.5		No
Cadmium	980	0.36	K	No	1	K	No
Chromium		63.5		No	49.4		No
Cobalt	350	0.11		No	1.2		No
Copper	47,000	11.5		No	24.1		No
Cyanide, Total	150	9.9		No	13.8		No
Lead	800	39.8		No	106		No
Mercury	350	0.0076	L	No	0	UL	No
Nickel	22,000	4.4		No	9.3		No
Selenium	5,800	1	U	No	0.53	U	No
Silver	5,800	0.98		No	1.1		No
Sulfide, Total		225		No	681		No
Thallium	12	2.1	U	No	1.1	U	No
Tin		7		No	24.3		No
Vanadium	5,800	28.3		No	21.1		No
Zinc	350,000	194	J	No	1,330	J	No
Aroclor 1016	27	0.017	U	No	0.018	U	No
Aroclor 1221	0.72	0.017	U	No	0.018	U	No
Aroclor 1232	0.72	0.017	U	No	0.018	U	No
Aroclor 1242	0.97	0.017	U	No	0.018	U	No
Aroclor 1248	0.94	0.017	U	No	0.018	U	No
Aroclor 1254	0.97	0.017	U	No	0.018	U	No
Aroclor 1260	0.99	0.0086		No	0.034		No
1,1,1,2-Tetrachloroethane		0.0058	U	No	0.0068	U	No
1,1,1-Trichloroethane	36,000	0.0058	U	No	0.0068	U	No
1,1,2,2-Tetrachloroethane	2.7	0.0058	U	No	0.0068	U	No
1,1,2-Trichloroethane	5	0.0058	U	No	0.0068	U	No
1,1-Dichloroethane	16	0.0058	U	No	0.0068	U	No
1,1-Dichloroethene	1,000	0.0058	U	No	0.0068	U	No
1,2-Dichloroethane	2	0.0058	U	No	0.0068	U	No
1,2-Dichloropropane	4.4	0.0058	U	No	0.0068	U	No
2-Butanone	190,000	0.0058	U	No	0.0068	U	No
2-Hexanone	1,300	0.0058	U	No	0.0068	U	No
4-Methyl-2-pentanone	56,000	0.0058	U	No	0.0068	U	No
Acetone	670,000	0.023	U	No	0.027	U	No
Benzene	5.1	0.0058	U	No	0.0068	U	No
Bromoform	86	0.0058	U	No	0.0068	U	No
Carbon disulfide	3,500	0.0058	U	No	0.0068	U	No
Carbon tetrachloride	2.9	0.0058	U	No	0.0068	U	No
Chlorobenzene	1,300	0.0058	U	No	0.0068	U	No
Chloroethane	57,000	0.0058	U	No	0.0068	U	No
Chloroform	1.4	0.0058	U	No	0.0068	U	No
cis-1,3-Dichloropropane		0.0058	U	No	0.0068	U	No
Ethylbenzene	25	0.0058	U	No	0.0068	U	No
Methylene chloride	1,000	0.0012	B	No	0.0035	B	No

**Parcel B14 - BERA Surface Soil Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-19			HI-SS-20		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
Tetrachloroethene	100	0.0058	U	No	0.0068	U	No
Toluene	47,000	0.0058	U	No	0.0068	U	No
trans-1,2-Dichloroethene	23,000	0.0058	U	No	0.0068	U	No
trans-1,3-Dichloropropane		0.0058	U	No	0.0068	U	No
Trichloroethene	6	0.0058	U	No	0.0068	U	No
Vinyl chloride	1.7	0.0058	U	No	0.0068	U	No
Xylenes (total)	2,800	0.017	U	No	0.02	U	No
2-Methylnaphthalene	3,000	0.07	U	No	0.07	U	No
Acenaphthene	45,000	0.07	U	No	0.07	U	No
Acenaphthylene	45,000	0.07	U	No	0.07	U	No
Anthracene	230,000	0.07	U	No	0.07	U	No
Fluoranthene	30,000	0.07	U	No	0.031		No
Fluorene	30,000	0.07	U	No	0.07	U	No
Naphthalene	17	0.07	U	No	0.07	U	No
Phenanthrene		0.07	U	No	0.07	U	No
Benzo(a)anthracene	21.0	0.024		No	0.026		No
Benzo(a)pyrene	2.10	0.07	U	No	0.07	U	No
Benzo(b)fluoranthene	21.0	0.07	U	No	0.043		No
Benzo(ghi)perylene		0.07	U	No	0.07	U	No
Benzo(k)fluoranthene	210	0.07	U	No	0.013		No
Chrysene	2,100	0.025		No	0.023		No
Dibenz(a,h)anthracene	2.10	0.07	U	No	0.07	U	No
Indeno(1,2,3-cd)pyrene	21.0	0.07	U	No	0.07	U	No
Pyrene	23,000	0.07	U	No	0.031		No
1,2,4-Trichlorobenzene	110	0.34	U	No	0.35	U	No
1,2-Dichlorobenzene	9,300	0.07	U	No	0.07	U	No
1,3-Dichlorobenzene		0.07	U	No	0.07	U	No
1,4-Dichlorobenzene	11	0.07	U	No	0.07	U	No
2,2'-oxybis(1-Chloropropane)		0.07	U	No	0.07	U	No
2,4,5-Trichlorophenol	82,000	0.34	U	No	0.35	U	No
2,4,6-Trichlorophenol	210	0.34	U	No	0.35	U	No
2,4-Dichlorophenol	2,500	0.07	U	No	0.07	U	No
2,4-Dimethylphenol	16,000	0.34	U	No	0.35	U	No
2,4-Dinitrophenol	1,600	1.6	U	No	1.6	U	No
2,4-Dinitrotoluene	7.4	0.34	U	No	0.35	U	No
2,6-Dinitrotoluene	1.5	0.34	U	No	0.35	U	No
2-Chloronaphthalene	60,000	0.07	U	No	0.07	U	No
2-Chlorophenol	5,800	0.34	U	No	0.35	U	No
2-Methylphenol	41,000	0.34	U	No	0.35	U	No
2-Nitrophenol		0.34	U	No	0.35	U	No
3,3'-Dichlorobenzidine	5.1	0.34	U	No	0.35	U	No
3,3'-Dimethylbenzidine		1.7	U	No	1.8	U	No
3-Methylphenol & 4-Methylphenol	41	0.34	U	No	0.35	U	No
4,6-Dinitro-2-methylphenol		1.6	U	No	1.6	U	No
4-Bromophenyl phenyl ether		0.34	U	No	0.35	U	No
4-Chloro-3-methylphenol		0.34	U	No	0.35	U	No
4-Chlorophenyl phenyl ether		0.34	U	No	0.35	U	No
4-Nitrophenol		0.34	U	No	0.35	U	No
bis(2-Chloroethoxy)methane	2,500	0.34	U	No	0.35	U	No
bis(2-Chloroethyl) ether	1	0.07	U	No	0.07	U	No

**Parcel B14 - BERA Surface Soil Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Analyte	PAL (mg/kg)	HI-SS-19			HI-SS-20		
		Result (mg/kg)	Qualifier	PAL Exceedance	Result (mg/kg)	Qualifier	PAL Exceedance
bis(2-Ethylhexyl) phthalate	160	0.34	U	No	0.35	U	No
Butyl benzyl phthalate		0.34	U	No	0.35	U	No
Dibenzofuran		0.34	U	No	0.35	U	No
Diethyl phthalate	660,000	0.34	U	No	0.35	U	No
Dimethyl phthalate		0.34	U	No	0.35	U	No
Di-n-butyl phthalate	82,000	0.34	U	No	0.35	U	No
Di-n-octyl phthalate	8,200	0.34	U	No	0.35	U	No
Hexachlorobenzene	0.96	0.07	U	No	0.07	U	No
Hexachlorobutadiene	5.3	0.07	U	No	0.07	U	No
Hexachlorocyclopentadiene	7.5	0.34	U	No	0.35	U	No
Hexachloroethane	8	0.34	U	No	0.35	U	No
Isophorone	2,400	0.34	U	No	0.35	U	No
Nitrobenzene	22	0.07	U	No	0.07	U	No
Pentachloroethane		0.35	U	No	0.35	U	No
Pentachlorophenol	4	0.1	U	No	0.11	U	No
Phenol	250,000	0.07	U	No	0.07	U	No
Pyridine		0.34	U	No	0.35	U	No

B = The analyte was not detected substantially above the level reported in laboratory or field blanks

J = The analyte was positively detected; the associated numerical value is approximate

K = The analyte was positively detected; the reported value may be biased high

L = The analyte was positively detected; the reported value may be biased low

U = The analyte was not detected above the reporting limit

UJ = The analyte's reporting limit is approximate

UL = The analyte was not detected above the reporting limit; the reporting limit may be biased low

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## **APPENDIX B**

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**Parcel B14 Historical Groundwater Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Well	Zone	Screen Interval (feet bgs)	Parameter	Sampling Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
HI02-PZM006	Shallow	7-17	1,1,1,2-Tetrachloroethane	12/4/2001	1	U		No
HI02-PZM006	Shallow	7-17	1,1,1-Trichloroethane	12/4/2001	1	U	200	No
HI02-PZM006	Shallow	7-17	1,1,2,2-Tetrachloroethane	12/4/2001	1	U	0.076	No
HI02-PZM006	Shallow	7-17	1,1,2-Trichloroethane	12/4/2001	1	U	5	No
HI02-PZM006	Shallow	7-17	1,1-Dichloroethane	12/4/2001	1	U	2.7	No
HI02-PZM006	Shallow	7-17	1,1-Dichloroethene	12/4/2001	1	U	7	No
HI02-PZM006	Shallow	7-17	1,2,4-Trichlorobenzene	12/4/2001	10	U	70	No
HI02-PZM006	Shallow	7-17	1,2-Dichlorobenzene	12/4/2001	10	U	600	No
HI02-PZM006	Shallow	7-17	1,2-Dichloroethane	12/4/2001	1	U	5	No
HI02-PZM006	Shallow	7-17	1,2-Dichloropropane	12/4/2001	1	U	5	No
HI02-PZM006	Shallow	7-17	1,3-Dichlorobenzene	12/4/2001	10	U		No
HI02-PZM006	Shallow	7-17	1,4-Dichlorobenzene	12/4/2001	10	U	75	No
HI02-PZM006	Shallow	7-17	2,2'-Oxybis(1-chloropropane)	12/4/2001	10	U	0.36	No
HI02-PZM006	Shallow	7-17	2,4,5-Trichlorophenol	12/4/2001	10	U	1,200	No
HI02-PZM006	Shallow	7-17	2,4,6-Trichlorophenol	12/4/2001	10	U	4	No
HI02-PZM006	Shallow	7-17	2,4-Dichlorophenol	12/4/2001	10	U	46	No
HI02-PZM006	Shallow	7-17	2,4-Dimethylphenol	12/4/2001	32		360	No
HI02-PZM006	Shallow	7-17	2,4-Dinitrophenol	12/4/2001	50	U	39	No
HI02-PZM006	Shallow	7-17	2,4-Dinitrotoluene	12/4/2001	10	U	0.24	No
HI02-PZM006	Shallow	7-17	2,6-Dinitrotoluene	12/4/2001	10	U	0.048	No
HI02-PZM006	Shallow	7-17	2-Butanone (MEK)	12/4/2001	1.2	J	5,600	No
HI02-PZM006	Shallow	7-17	2-Butanone (MEK)	12/4/2001	5	U	5,600	No
HI02-PZM006	Shallow	7-17	2-Chloronaphthalene	12/4/2001	10	U	750	No
HI02-PZM006	Shallow	7-17	2-Chlorophenol	12/4/2001	10	U	91	No
HI02-PZM006	Shallow	7-17	2-Hexanone	12/4/2001	5	U	38	No
HI02-PZM006	Shallow	7-17	2-Methylnaphthalene	12/4/2001	1.4	J	36	No
HI02-PZM006	Shallow	7-17	2-Methylphenol	12/4/2001	1.1	J	930	No
HI02-PZM006	Shallow	7-17	2-Nitrophenol	12/4/2001	10	U	190	No
HI02-PZM006	Shallow	7-17	3,3'-Dichlorobenzidine	12/4/2001	50	U	0.12	No
HI02-PZM006	Shallow	7-17	3,3'-Dimethylbenzidine	12/4/2001	50	U		No
HI02-PZM006	Shallow	7-17	4,6-Dinitro-2-methylphenol	12/4/2001	50	U		No
HI02-PZM006	Shallow	7-17	4-Bromophenyl-phenylether	12/4/2001	10	U		No
HI02-PZM006	Shallow	7-17	4-Chloro-3-methylphenol	12/4/2001	10	U		No
HI02-PZM006	Shallow	7-17	4-Chlorophenyl-phenylether	12/4/2001	10	U		No
HI02-PZM006	Shallow	7-17	4-Methyl-2-pentanone (MIBK)	12/4/2001	5	U	1,200	No
HI02-PZM006	Shallow	7-17	4-Methylphenol	12/4/2001	10		930	No
HI02-PZM006	Shallow	7-17	4-Nitrophenol	12/4/2001	50	U		No
HI02-PZM006	Shallow	7-17	Acenaphthene	12/4/2001	1.5	J	530	No
HI02-PZM006	Shallow	7-17	Acenaphthylene	12/4/2001	10	U	530	No
HI02-PZM006	Shallow	7-17	Acetone	12/4/2001	5.2	J	14,000	No
HI02-PZM006	Shallow	7-17	Acetone	12/4/2001	6.3	J	14,000	No
HI02-PZM006	Shallow	7-17	Anthracene	12/4/2001	10	U	1,800	No
HI02-PZM006	Shallow	7-17	Antimony	12/4/2001	4.5	J	6	No
HI02-PZM006	Shallow	7-17	Aroclor-1016	12/4/2001	1	U		No
HI02-PZM006	Shallow	7-17	Aroclor-1221	12/4/2001	1	U		No
HI02-PZM006	Shallow	7-17	Aroclor-1232	12/4/2001	1	U		No
HI02-PZM006	Shallow	7-17	Aroclor-1242	12/4/2001	1	U		No
HI02-PZM006	Shallow	7-17	Aroclor-1248	12/4/2001	1	U		No
HI02-PZM006	Shallow	7-17	Aroclor-1254	12/4/2001	1	U		No
HI02-PZM006	Shallow	7-17	Aroclor-1260	12/4/2001	1	U		No
HI02-PZM006	Shallow	7-17	Arsenic	12/4/2001	2.1	B	10	No

**Parcel B14 Historical Groundwater Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Well	Zone	Screen Interval (feet bgs)	Parameter	Sampling Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
HI02-PZM006	Shallow	7-17	Barium	12/4/2001	33.4	J	2,000	No
HI02-PZM006	Shallow	7-17	Benz(a)anthracene	12/4/2001	10	U	0.0298	No
HI02-PZM006	Shallow	7-17	Benzene	12/4/2001	0.77	J	5	No
HI02-PZM006	Shallow	7-17	Benzene	12/4/2001	1.2		5	No
HI02-PZM006	Shallow	7-17	Benzo(a)pyrene	12/4/2001	10	U	0.2	No
HI02-PZM006	Shallow	7-17	Benzo(b)fluoranthene	12/4/2001	10	U	0.25	No
HI02-PZM006	Shallow	7-17	Benzo(g,h,i)perylene	12/4/2001	10	U		No
HI02-PZM006	Shallow	7-17	Benzo(k)fluoranthene	12/4/2001	10	U	2.5	No
HI02-PZM006	Shallow	7-17	Beryllium	12/4/2001	0.83	B	4	No
HI02-PZM006	Shallow	7-17	Bicarbonate	12/4/2001	16,500			No
HI02-PZM006	Shallow	7-17	bis(2-Chloroethoxy)methane	12/4/2001	10	U	59	No
HI02-PZM006	Shallow	7-17	bis(2-Chloroethyl)ether	12/4/2001	10	U	0.014	No
HI02-PZM006	Shallow	7-17	bis(2-Ethylhexyl)phthalate	12/4/2001	10	U	6	No
HI02-PZM006	Shallow	7-17	Bromoform	12/4/2001	1	U	0.13	No
HI02-PZM006	Shallow	7-17	Butylbenzylphthalate	12/4/2001	10	U		No
HI02-PZM006	Shallow	7-17	Cadmium	12/4/2001	0.63	U	5	No
HI02-PZM006	Shallow	7-17	Calcium	12/4/2001	103,000			No
HI02-PZM006	Shallow	7-17	Carbon disulfide	12/4/2001	1	U	810	No
HI02-PZM006	Shallow	7-17	Carbon disulfide	12/4/2001	1.2		810	No
HI02-PZM006	Shallow	7-17	Carbon tetrachloride	12/4/2001	1	U	5	No
HI02-PZM006	Shallow	7-17	Chloride	12/4/2001	85,600			No
HI02-PZM006	Shallow	7-17	Chlorobenzene	12/4/2001	1	U	100	No
HI02-PZM006	Shallow	7-17	Chloroethane	12/4/2001	2	U	21,000	No
HI02-PZM006	Shallow	7-17	Chloroform	12/4/2001	1	U	0.22	No
HI02-PZM006	Shallow	7-17	Chromium	12/4/2001	1.1	U	100	No
HI02-PZM006	Shallow	7-17	Chrysene	12/4/2001	10	U	25	No
HI02-PZM006	Shallow	7-17	cis-1,3-Dichloropropene	12/4/2001	1	U		No
HI02-PZM006	Shallow	7-17	Cobalt	12/4/2001	0.86	U	6	No
HI02-PZM006	Shallow	7-17	Copper	12/4/2001	3.9	B	1,300	No
HI02-PZM006	Shallow	7-17	Cyanide, amenable	12/4/2001	5,000	J	200	Yes
HI02-PZM006	Shallow	7-17	Dibenz(a,h)anthracene	12/4/2001	10	U	0.025	No
HI02-PZM006	Shallow	7-17	Dibenzofuran	12/4/2001	0.74	J		No
HI02-PZM006	Shallow	7-17	Diethylphthalate	12/4/2001	10	U	15,000	No
HI02-PZM006	Shallow	7-17	Dimethylphthalate	12/4/2001	10	U		No
HI02-PZM006	Shallow	7-17	Di-n-butylphthalate	12/4/2001	10	U	900	No
HI02-PZM006	Shallow	7-17	Di-n-octylphthalate	12/4/2001	10	U	200	No
HI02-PZM006	Shallow	7-17	Ethylbenzene	12/4/2001	1	U	700	No
HI02-PZM006	Shallow	7-17	Fluoranthene	12/4/2001	10	U	800	No
HI02-PZM006	Shallow	7-17	Fluorene	12/4/2001	1.3	J	290	No
HI02-PZM006	Shallow	7-17	Hexachlorobenzene	12/4/2001	10	U	1	No
HI02-PZM006	Shallow	7-17	Hexachlorobutadiene	12/4/2001	10	U	0.14	No
HI02-PZM006	Shallow	7-17	Hexachlorocyclopentadiene	12/4/2001	50	U	50	No
HI02-PZM006	Shallow	7-17	Hexachloroethane	12/4/2001	10	U	0.33	No
HI02-PZM006	Shallow	7-17	Indeno(1,2,3-cd)pyrene	12/4/2001	10	U	0.25	No
HI02-PZM006	Shallow	7-17	Iron	12/4/2001	45	U	14,000	No
HI02-PZM006	Shallow	7-17	Isophorone	12/4/2001	10	U		No
HI02-PZM006	Shallow	7-17	Lead	12/4/2001	1.8	U	15	No
HI02-PZM006	Shallow	7-17	Magnesium	12/4/2001	39.6	B		No
HI02-PZM006	Shallow	7-17	Manganese	12/4/2001	0.65	B	430	No
HI02-PZM006	Shallow	7-17	Mercury	12/4/2001	0.054	R	2	No
HI02-PZM006	Shallow	7-17	Methylene chloride	12/4/2001	2	U	5	No

**Parcel B14 Historical Groundwater Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Well	Zone	Screen Interval (feet bgs)	Parameter	Sampling Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
HI02-PZM006	Shallow	7-17	Naphthalene	12/4/2001	7.3	J	0.17	Yes
HI02-PZM006	Shallow	7-17	Nickel	12/4/2001	2.9	J	390	No
HI02-PZM006	Shallow	7-17	Nitrobenzene	12/4/2001	10	U	0.14	No
HI02-PZM006	Shallow	7-17	Pentachloroethane	12/4/2001	50	U		No
HI02-PZM006	Shallow	7-17	Pentachlorophenol	12/4/2001	50	U	1	No
HI02-PZM006	Shallow	7-17	Phenanthrene	12/4/2001	1.1	J		No
HI02-PZM006	Shallow	7-17	Phenol	12/4/2001	2.6	J	5,800	No
HI02-PZM006	Shallow	7-17	Potassium	12/4/2001	43,100	J		No
HI02-PZM006	Shallow	7-17	Pyrene	12/4/2001	10	U	120	No
HI02-PZM006	Shallow	7-17	Pyridine	12/4/2001	20	U		No
HI02-PZM006	Shallow	7-17	Selenium	12/4/2001	3.2	U	50	No
HI02-PZM006	Shallow	7-17	Silver	12/4/2001	1.1	B	94	No
HI02-PZM006	Shallow	7-17	Sodium	12/4/2001	68,300			No
HI02-PZM006	Shallow	7-17	Sulfate	12/4/2001	198,000			No
HI02-PZM006	Shallow	7-17	Sulfide	12/4/2001	1,000	U		No
HI02-PZM006	Shallow	7-17	Tetrachloroethene	12/4/2001	1	U	5	No
HI02-PZM006	Shallow	7-17	Thallium	12/4/2001	5.7	U	2	No
HI02-PZM006	Shallow	7-17	Tin	12/4/2001	28.8	U		No
HI02-PZM006	Shallow	7-17	Toluene	12/4/2001	0.47	J	1,000	No
HI02-PZM006	Shallow	7-17	Toluene	12/4/2001	0.67	J	1,000	No
HI02-PZM006	Shallow	7-17	trans-1,2-Dichloroethene	12/4/2001	1	U	100	No
HI02-PZM006	Shallow	7-17	trans-1,3-Dichloropropene	12/4/2001	1	U		No
HI02-PZM006	Shallow	7-17	Trichloroethene	12/4/2001	1	U	5	No
HI02-PZM006	Shallow	7-17	Vanadium	12/4/2001	182		86	Yes
HI02-PZM006	Shallow	7-17	Vinyl chloride	12/4/2001	2	U	2	No
HI02-PZM006	Shallow	7-17	Xylene, total	12/4/2001	0.97	J	10,000	No
HI02-PZM006	Shallow	7-17	Xylene, total	12/4/2001	3	U	10,000	No
HI02-PZM006	Shallow	7-17	Zinc	12/4/2001	2.1	B	6,000	No
HI02-PZM032	Intermediate	33-43	1,1,1,2-Tetrachloroethane	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	1,1,1,2-Tetrachloroethane	12/4/2001	1	U		No
HI02-PZM032	Intermediate	33-43	1,1,1-Trichloroethane	11/28/2001	1	U	200	No
HI02-PZM032	Intermediate	33-43	1,1,1-Trichloroethane	12/4/2001	1	U	200	No
HI02-PZM032	Intermediate	33-43	1,1,2,2-Tetrachloroethane	11/28/2001	1	U	0.076	No
HI02-PZM032	Intermediate	33-43	1,1,2,2-Tetrachloroethane	12/4/2001	1	U	0.076	No
HI02-PZM032	Intermediate	33-43	1,1,2-Trichloroethane	11/28/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	1,1,2-Trichloroethane	12/4/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	1,1-Dichloroethane	11/28/2001	1	U	2.7	No
HI02-PZM032	Intermediate	33-43	1,1-Dichloroethane	12/4/2001	1	U	2.7	No
HI02-PZM032	Intermediate	33-43	1,1-Dichloroethene	11/28/2001	3.2		7	No
HI02-PZM032	Intermediate	33-43	1,1-Dichloroethene	12/4/2001	2.4		7	No
HI02-PZM032	Intermediate	33-43	1,2,3-Trichloropropane	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	1,2,4,5-Tetrachlorobenzene	11/28/2001	10	U	1.7	No
HI02-PZM032	Intermediate	33-43	1,2,4,5-Tetrachlorobenzene	12/4/2001	10	U	1.7	No
HI02-PZM032	Intermediate	33-43	1,2,4-Trichlorobenzene	11/28/2001	10	U	70	No
HI02-PZM032	Intermediate	33-43	1,2,4-Trichlorobenzene	12/4/2001	10	U	70	No
HI02-PZM032	Intermediate	33-43	1,2-Dibromo-3-chloropropane	11/28/2001	1	U	0.2	No
HI02-PZM032	Intermediate	33-43	1,2-Dibromoethane	11/28/2001	1	U	0.0075	No
HI02-PZM032	Intermediate	33-43	1,2-Dichlorobenzene	11/28/2001	10	U	600	No
HI02-PZM032	Intermediate	33-43	1,2-Dichlorobenzene	12/4/2001	10	U	600	No
HI02-PZM032	Intermediate	33-43	1,2-Dichloroethane	11/28/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	1,2-Dichloroethane	12/4/2001	1	U	5	No

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HI02-PZM032	Intermediate	33-43	1,2-Dichloropropane	11/28/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	1,2-Dichloropropane	12/4/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	1,3,5-Trinitrobenzene	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	1,3,5-Trinitrobenzene	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	1,3-Dichlorobenzene	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	1,3-Dichlorobenzene	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	1,3-Dinitrobenzene	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	1,3-Dinitrobenzene	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	1,4-Dichlorobenzene	11/28/2001	10	U	75	No
HI02-PZM032	Intermediate	33-43	1,4-Dichlorobenzene	12/4/2001	10	U	75	No
HI02-PZM032	Intermediate	33-43	1,4-Dioxane	11/28/2001	200	R	0.46	Yes
HI02-PZM032	Intermediate	33-43	1,4-Naphthoquinone	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	1,4-Naphthoquinone	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	1-Naphthylamine	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	1-Naphthylamine	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	2,2'-Oxybis(1-chloropropane)	11/28/2001	10	U	0.36	No
HI02-PZM032	Intermediate	33-43	2,2'-Oxybis(1-chloropropane)	12/4/2001	20	U	0.36	No
HI02-PZM032	Intermediate	33-43	2,3,4,6-Tetrachlorophenol	11/28/2001	10	U	240	No
HI02-PZM032	Intermediate	33-43	2,3,4,6-Tetrachlorophenol	12/4/2001	10	U	240	No
HI02-PZM032	Intermediate	33-43	2,4,5-Trichlorophenol	11/28/2001	10	U	1,200	No
HI02-PZM032	Intermediate	33-43	2,4,5-Trichlorophenol	12/4/2001	10	U	1,200	No
HI02-PZM032	Intermediate	33-43	2,4,6-Trichlorophenol	11/28/2001	10	U	4	No
HI02-PZM032	Intermediate	33-43	2,4,6-Trichlorophenol	12/4/2001	10	U	4	No
HI02-PZM032	Intermediate	33-43	2,4-Dichlorophenol	11/28/2001	10	U	46	No
HI02-PZM032	Intermediate	33-43	2,4-Dichlorophenol	12/4/2001	10	U	46	No
HI02-PZM032	Intermediate	33-43	2,4-Dimethylphenol	11/28/2001	2.6	J	360	No
HI02-PZM032	Intermediate	33-43	2,4-Dimethylphenol	12/4/2001	10	U	360	No
HI02-PZM032	Intermediate	33-43	2,4-Dinitrophenol	11/28/2001	50	U	39	No
HI02-PZM032	Intermediate	33-43	2,4-Dinitrophenol	12/4/2001	50	U	39	No
HI02-PZM032	Intermediate	33-43	2,4-Dinitrotoluene	11/28/2001	10	U	0.24	No
HI02-PZM032	Intermediate	33-43	2,4-Dinitrotoluene	12/4/2001	10	U	0.24	No
HI02-PZM032	Intermediate	33-43	2,6-Dichlorophenol	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	2,6-Dichlorophenol	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	2,6-Dinitrotoluene	11/28/2001	10	U	0.048	No
HI02-PZM032	Intermediate	33-43	2,6-Dinitrotoluene	12/4/2001	10	U	0.048	No
HI02-PZM032	Intermediate	33-43	2-Acetylaminofluorene	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	2-Acetylaminofluorene	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	2-Butanone (MEK)	11/28/2001	5	U	5,600	No
HI02-PZM032	Intermediate	33-43	2-Butanone (MEK)	12/4/2001	5	U	5,600	No
HI02-PZM032	Intermediate	33-43	2-Chloro-1,3-butadiene	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	2-Chloronaphthalene	11/28/2001	10	U	750	No
HI02-PZM032	Intermediate	33-43	2-Chloronaphthalene	12/4/2001	10	U	750	No
HI02-PZM032	Intermediate	33-43	2-Chlorophenol	11/28/2001	10	U	91	No
HI02-PZM032	Intermediate	33-43	2-Chlorophenol	12/4/2001	10	U	91	No
HI02-PZM032	Intermediate	33-43	2-Hexanone	11/28/2001	5	U	38	No
HI02-PZM032	Intermediate	33-43	2-Hexanone	12/4/2001	5	U	38	No
HI02-PZM032	Intermediate	33-43	2-Methyl-5-nitroaniline	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	2-Methyl-5-nitroaniline	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	2-Methylaniline	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	2-Methylaniline	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	2-Methylnaphthalene	11/28/2001	10	U	36	No

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HI02-PZM032	Intermediate	33-43	2-Methylnaphthalene	12/4/2001	10	U	36	No
HI02-PZM032	Intermediate	33-43	2-Methylphenol	11/28/2001	10	U	930	No
HI02-PZM032	Intermediate	33-43	2-Methylphenol	12/4/2001	10	U	930	No
HI02-PZM032	Intermediate	33-43	2-Naphthylamine	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	2-Naphthylamine	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	2-Nitroaniline	11/28/2001	50	U	190	No
HI02-PZM032	Intermediate	33-43	2-Nitroaniline	12/4/2001	50	U	190	No
HI02-PZM032	Intermediate	33-43	2-Nitrophenol	11/28/2001	10	U	190	No
HI02-PZM032	Intermediate	33-43	2-Nitrophenol	12/4/2001	10	U	190	No
HI02-PZM032	Intermediate	33-43	2-Picoline	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	2-Picoline	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	3,3'-Dichlorobenzidine	11/28/2001	50	U	0.12	No
HI02-PZM032	Intermediate	33-43	3,3'-Dichlorobenzidine	12/4/2001	50	U	0.12	No
HI02-PZM032	Intermediate	33-43	3,3'-Dimethylbenzidine	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	3,3'-Dimethylbenzidine	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	3-Methylcholanthrene	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	3-Methylcholanthrene	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	3-Nitroaniline	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	3-Nitroaniline	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	4,6-Dinitro-2-methylphenol	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	4,6-Dinitro-2-methylphenol	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	4-Aminobiphenyl	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	4-Aminobiphenyl	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	4-Bromophenyl-phenylether	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	4-Bromophenyl-phenylether	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	4-Chloro-3-methylphenol	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	4-Chloro-3-methylphenol	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	4-Chloroaniline	11/28/2001	10	U	0.36	No
HI02-PZM032	Intermediate	33-43	4-Chloroaniline	12/4/2001	10	U	0.36	No
HI02-PZM032	Intermediate	33-43	4-Chlorophenyl-phenylether	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	4-Chlorophenyl-phenylether	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	4-Methyl-2-pentanone (MIBK)	11/28/2001	5	U	1,200	No
HI02-PZM032	Intermediate	33-43	4-Methyl-2-pentanone (MIBK)	12/4/2001	5	U	1,200	No
HI02-PZM032	Intermediate	33-43	4-Methylphenol	11/28/2001	2.2	J	930	No
HI02-PZM032	Intermediate	33-43	4-Methylphenol	12/4/2001	10	U	930	No
HI02-PZM032	Intermediate	33-43	4-Nitroaniline	11/28/2001	50	U	3.8	No
HI02-PZM032	Intermediate	33-43	4-Nitroaniline	12/4/2001	50	U	3.8	No
HI02-PZM032	Intermediate	33-43	4-Nitrophenol	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	4-Nitrophenol	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	4-Nitroquinoline-1-oxide	11/28/2001	100	U		No
HI02-PZM032	Intermediate	33-43	4-Nitroquinoline-1-oxide	12/4/2001	100	U		No
HI02-PZM032	Intermediate	33-43	7,12-Dimethylbenz(a)anthracene	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	7,12-Dimethylbenz(a)anthracene	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	a,a-Dimethylphenethylamine	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	a,a-Dimethylphenethylamine	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	Acenaphthene	11/28/2001	10	U	530	No
HI02-PZM032	Intermediate	33-43	Acenaphthene	12/4/2001	10	U	530	No
HI02-PZM032	Intermediate	33-43	Acenaphthylene	11/28/2001	10	U	530	No
HI02-PZM032	Intermediate	33-43	Acenaphthylene	12/4/2001	10	U	530	No
HI02-PZM032	Intermediate	33-43	Acetone	11/28/2001	10	U	14,000	No
HI02-PZM032	Intermediate	33-43	Acetone	12/4/2001	10	U	14,000	No

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HI02-PZM032	Intermediate	33-43	Acetonitrile	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Acetophenone	11/28/2001	10	U	1,900	No
HI02-PZM032	Intermediate	33-43	Acetophenone	12/4/2001	10	U	1,900	No
HI02-PZM032	Intermediate	33-43	Acrolein	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Acrylonitrile	11/28/2001	20	R		No
HI02-PZM032	Intermediate	33-43	Allyl chloride	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aniline	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Aniline	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Anthracene	11/28/2001	10	U	1,800	No
HI02-PZM032	Intermediate	33-43	Anthracene	12/4/2001	10	U	1,800	No
HI02-PZM032	Intermediate	33-43	Antimony	12/4/2001	4.1	U	6	No
HI02-PZM032	Intermediate	33-43	Aramite	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	Aramite	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1016	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1016	12/4/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1221	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1221	12/4/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1232	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1232	12/4/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1242	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1242	12/4/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1248	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1248	12/4/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1254	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1254	12/4/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1260	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Aroclor-1260	12/4/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Arsenic	12/4/2001	44.7		10	Yes
HI02-PZM032	Intermediate	33-43	Barium	12/4/2001	40.2	B	2,000	No
HI02-PZM032	Intermediate	33-43	Benz(a)anthracene	11/28/2001	10	U	0.0298	No
HI02-PZM032	Intermediate	33-43	Benz(a)anthracene	12/4/2001	10	U	0.0298	No
HI02-PZM032	Intermediate	33-43	Benzene	11/28/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	Benzene	12/4/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	Benzo(a)pyrene	11/28/2001	10	U	0.2	No
HI02-PZM032	Intermediate	33-43	Benzo(a)pyrene	12/4/2001	10	U	0.2	No
HI02-PZM032	Intermediate	33-43	Benzo(b)fluoranthene	11/28/2001	10	U	0.25	No
HI02-PZM032	Intermediate	33-43	Benzo(b)fluoranthene	12/4/2001	10	U	0.25	No
HI02-PZM032	Intermediate	33-43	Benzo(g,h,i)perylene	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Benzo(g,h,i)perylene	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Benzo(k)fluoranthene	11/28/2001	10	U	2.5	No
HI02-PZM032	Intermediate	33-43	Benzo(k)fluoranthene	12/4/2001	10	U	2.5	No
HI02-PZM032	Intermediate	33-43	Benzyl alcohol	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Benzyl alcohol	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Beryllium	12/4/2001	1.1	B	4	No
HI02-PZM032	Intermediate	33-43	Bicarbonate	12/4/2001	177,000			No
HI02-PZM032	Intermediate	33-43	bis(2-Chloroethoxy)methane	11/28/2001	10	U	59	No
HI02-PZM032	Intermediate	33-43	bis(2-Chloroethoxy)methane	12/4/2001	10	U	59	No
HI02-PZM032	Intermediate	33-43	bis(2-Chloroethyl)ether	11/28/2001	10	U	0.014	No
HI02-PZM032	Intermediate	33-43	bis(2-Chloroethyl)ether	12/4/2001	10	U	0.014	No
HI02-PZM032	Intermediate	33-43	bis(2-Ethylhexyl)phthalate	11/28/2001	10	U	6	No
HI02-PZM032	Intermediate	33-43	bis(2-Ethylhexyl)phthalate	12/4/2001	10	U	6	No

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HI02-PZM032	Intermediate	33-43	Bromodichloromethane	11/28/2001	1	U	0.13	No
HI02-PZM032	Intermediate	33-43	Bromoform	11/28/2001	1	U	0.13	No
HI02-PZM032	Intermediate	33-43	Bromoform	12/4/2001	1	U	0.13	No
HI02-PZM032	Intermediate	33-43	Bromomethane	11/28/2001	2	R	7.5	No
HI02-PZM032	Intermediate	33-43	Butylbenzylphthalate	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Butylbenzylphthalate	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Cadmium	12/4/2001	0.63	U	5	No
HI02-PZM032	Intermediate	33-43	Calcium	12/4/2001	28,400			No
HI02-PZM032	Intermediate	33-43	Carbon disulfide	11/28/2001	1	U	810	No
HI02-PZM032	Intermediate	33-43	Carbon disulfide	12/4/2001	1	U	810	No
HI02-PZM032	Intermediate	33-43	Carbon tetrachloride	11/28/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	Carbon tetrachloride	12/4/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	Chloride	12/4/2001	292,000			No
HI02-PZM032	Intermediate	33-43	Chlorobenzene	11/28/2001	1	U	100	No
HI02-PZM032	Intermediate	33-43	Chlorobenzene	12/4/2001	1	U	100	No
HI02-PZM032	Intermediate	33-43	Chloroethane	11/28/2001	2	U	21,000	No
HI02-PZM032	Intermediate	33-43	Chloroethane	12/4/2001	2	U	21,000	No
HI02-PZM032	Intermediate	33-43	Chloroform	11/28/2001	1	U	0.22	No
HI02-PZM032	Intermediate	33-43	Chloroform	12/4/2001	1	U	0.22	No
HI02-PZM032	Intermediate	33-43	Chloromethane	11/28/2001	2	U	190	No
HI02-PZM032	Intermediate	33-43	Chromium	12/4/2001	1.6	B	100	No
HI02-PZM032	Intermediate	33-43	Chrysene	11/28/2001	10	U	25	No
HI02-PZM032	Intermediate	33-43	Chrysene	12/4/2001	10	U	25	No
HI02-PZM032	Intermediate	33-43	cis-1,3-Dichloropropene	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	cis-1,3-Dichloropropene	12/4/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Cobalt	12/4/2001	1.8	J	6	No
HI02-PZM032	Intermediate	33-43	Copper	12/4/2001	0.77	U	1,300	No
HI02-PZM032	Intermediate	33-43	Cyanide, amenable	11/28/2001	31	J	200	No
HI02-PZM032	Intermediate	33-43	Cyanide, amenable	12/4/2001	18	J	200	No
HI02-PZM032	Intermediate	33-43	Dibenz(a,h)anthracene	11/28/2001	10	U	0.025	No
HI02-PZM032	Intermediate	33-43	Dibenz(a,h)anthracene	12/4/2001	10	U	0.025	No
HI02-PZM032	Intermediate	33-43	Dibenzofuran	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Dibenzofuran	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Dibromochloromethane	11/28/2001	1	U	0.17	No
HI02-PZM032	Intermediate	33-43	Dibromomethane	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Dichlorodifluoromethane(Freon-12)	11/28/2001	2	U	200	No
HI02-PZM032	Intermediate	33-43	Diethylphthalate	11/28/2001	10	U	15,000	No
HI02-PZM032	Intermediate	33-43	Diethylphthalate	12/4/2001	10	U	15,000	No
HI02-PZM032	Intermediate	33-43	Dimethylphthalate	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Dimethylphthalate	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Di-n-butylphthalate	11/28/2001	10	U	900	No
HI02-PZM032	Intermediate	33-43	Di-n-butylphthalate	12/4/2001	10	U	900	No
HI02-PZM032	Intermediate	33-43	Di-n-octylphthalate	11/28/2001	10	U	200	No
HI02-PZM032	Intermediate	33-43	Di-n-octylphthalate	12/4/2001	10	U	200	No
HI02-PZM032	Intermediate	33-43	Dinoseb	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Dinoseb	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Diphenylamine	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Diphenylamine	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Ethyl methacrylate	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Ethyl methanesulfonate	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Ethyl methanesulfonate	12/4/2001	10	U		No

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HI02-PZM032	Intermediate	33-43	Ethylbenzene	11/28/2001	1	U	700	No
HI02-PZM032	Intermediate	33-43	Ethylbenzene	12/4/2001	1	U	700	No
HI02-PZM032	Intermediate	33-43	Fluoranthene	11/28/2001	10	U	800	No
HI02-PZM032	Intermediate	33-43	Fluoranthene	12/4/2001	10	U	800	No
HI02-PZM032	Intermediate	33-43	Fluorene	11/28/2001	10	U	290	No
HI02-PZM032	Intermediate	33-43	Fluorene	12/4/2001	10	U	290	No
HI02-PZM032	Intermediate	33-43	Hexachlorobenzene	11/28/2001	10	U	1	No
HI02-PZM032	Intermediate	33-43	Hexachlorobenzene	12/4/2001	10	U	1	No
HI02-PZM032	Intermediate	33-43	Hexachlorobutadiene	11/28/2001	10	U	0.14	No
HI02-PZM032	Intermediate	33-43	Hexachlorobutadiene	12/4/2001	10	U	0.14	No
HI02-PZM032	Intermediate	33-43	Hexachlorocyclopentadiene	11/28/2001	50	U	50	No
HI02-PZM032	Intermediate	33-43	Hexachlorocyclopentadiene	12/4/2001	50	U	50	No
HI02-PZM032	Intermediate	33-43	Hexachloroethane	11/28/2001	10	U	0.33	No
HI02-PZM032	Intermediate	33-43	Hexachloroethane	12/4/2001	10	U	0.33	No
HI02-PZM032	Intermediate	33-43	Hexachloropropene	11/28/2001	100	U		No
HI02-PZM032	Intermediate	33-43	Hexachloropropene	12/4/2001	100	U		No
HI02-PZM032	Intermediate	33-43	Indeno(1,2,3-cd)pyrene	11/28/2001	10	U	0.25	No
HI02-PZM032	Intermediate	33-43	Indeno(1,2,3-cd)pyrene	12/4/2001	10	U	0.25	No
HI02-PZM032	Intermediate	33-43	Iodomethane	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Iron	12/4/2001	28,100	L	14,000	Yes
HI02-PZM032	Intermediate	33-43	Isobutanol	11/28/2001	40	U		No
HI02-PZM032	Intermediate	33-43	Isophorone	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Isophorone	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Isosafrole	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Isosafrole	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Lead	12/4/2001	1.8	U	15	No
HI02-PZM032	Intermediate	33-43	Magnesium	12/4/2001	29,400			No
HI02-PZM032	Intermediate	33-43	Manganese	12/4/2001	1,770		430	Yes
HI02-PZM032	Intermediate	33-43	Mercury	12/4/2001	0.054	L	2	No
HI02-PZM032	Intermediate	33-43	Methacrylonitrile	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Methapyrilene	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	Methapyrilene	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	Methyl methacrylate	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Methyl methanesulfonate	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Methyl methanesulfonate	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Methylene chloride	11/28/2001	2	U	5	No
HI02-PZM032	Intermediate	33-43	Methylene chloride	12/4/2001	0.71	J	5	No
HI02-PZM032	Intermediate	33-43	Naphthalene	11/28/2001	10	U	0.17	No
HI02-PZM032	Intermediate	33-43	Naphthalene	12/4/2001	10	U	0.17	No
HI02-PZM032	Intermediate	33-43	Nickel	12/4/2001	3	J	390	No
HI02-PZM032	Intermediate	33-43	Nitrobenzene	11/28/2001	10	U	0.14	No
HI02-PZM032	Intermediate	33-43	Nitrobenzene	12/4/2001	10	U	0.14	No
HI02-PZM032	Intermediate	33-43	n-Nitrosodiethylamine	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	n-Nitrosodiethylamine	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	n-Nitrosodimethylamine	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	n-Nitrosodimethylamine	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	n-Nitroso-di-n-butylamine	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	n-Nitroso-di-n-butylamine	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	n-Nitroso-di-n-propylamine	11/28/2001	10	U	0.011	No
HI02-PZM032	Intermediate	33-43	n-Nitroso-di-n-propylamine	12/4/2001	10	U	0.011	No
HI02-PZM032	Intermediate	33-43	n-Nitrosodiphenylamine	11/28/2001	10	U	12	No



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HI02-PZM032	Intermediate	33-43	n-Nitrosodiphenylamine	12/4/2001	10	U	12	No
HI02-PZM032	Intermediate	33-43	N-Nitrosomorpholine	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	N-Nitrosomorpholine	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	n-Nitroso-n-methylethylamine	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	n-Nitroso-n-methylethylamine	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	N-Nitrosopiperidine	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	N-Nitrosopiperidine	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	n-Nitrosopyrrolidine	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	n-Nitrosopyrrolidine	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	p-Dimethylaminoazobenzene	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	p-Dimethylaminoazobenzene	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Pentachlorobenzene	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Pentachlorobenzene	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Pentachloroethane	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	Pentachloroethane	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	Pentachloronitrobenzene	11/28/2001	50	U		No
HI02-PZM032	Intermediate	33-43	Pentachloronitrobenzene	12/4/2001	50	U		No
HI02-PZM032	Intermediate	33-43	Pentachlorophenol	11/28/2001	50	U	1	No
HI02-PZM032	Intermediate	33-43	Pentachlorophenol	12/4/2001	50	U	1	No
HI02-PZM032	Intermediate	33-43	Phenacetin	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Phenacetin	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Phenanthrene	11/28/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Phenanthrene	12/4/2001	10	U		No
HI02-PZM032	Intermediate	33-43	Phenol	11/28/2001	10	U	5,800	No
HI02-PZM032	Intermediate	33-43	Phenol	12/4/2001	10	U	5,800	No
HI02-PZM032	Intermediate	33-43	Potassium	12/4/2001	5,870			No
HI02-PZM032	Intermediate	33-43	p-Phenylenediamine	11/28/2001	200	U		No
HI02-PZM032	Intermediate	33-43	p-Phenylenediamine	12/4/2001	200	U		No
HI02-PZM032	Intermediate	33-43	Pronamide	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Pronamide	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Propionitrile	11/28/2001	2	R		No
HI02-PZM032	Intermediate	33-43	Pyrene	11/28/2001	10	U	120	No
HI02-PZM032	Intermediate	33-43	Pyrene	12/4/2001	10	U	120	No
HI02-PZM032	Intermediate	33-43	Pyridine	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Pyridine	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Safrole	11/28/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Safrole	12/4/2001	20	U		No
HI02-PZM032	Intermediate	33-43	Selenium	12/4/2001	3.2	U	50	No
HI02-PZM032	Intermediate	33-43	Silver	12/4/2001	0.75	U	94	No
HI02-PZM032	Intermediate	33-43	Sodium	12/4/2001	305,000			No
HI02-PZM032	Intermediate	33-43	Styrene	11/28/2001	1	U	100	No
HI02-PZM032	Intermediate	33-43	Sulfate	12/4/2001	275,000			No
HI02-PZM032	Intermediate	33-43	Sulfide	11/28/2001	1,000	U		No
HI02-PZM032	Intermediate	33-43	Sulfide	12/4/2001	1,000			No
HI02-PZM032	Intermediate	33-43	Tetrachloroethene	11/28/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	Tetrachloroethene	12/4/2001	1	U	5	No
HI02-PZM032	Intermediate	33-43	Thallium	12/4/2001	5.7	U	2	No
HI02-PZM032	Intermediate	33-43	Tin	12/4/2001	28.8	U		No
HI02-PZM032	Intermediate	33-43	Toluene	11/28/2001	1	U	1,000	No
HI02-PZM032	Intermediate	33-43	Toluene	12/4/2001	1	U	1,000	No
HI02-PZM032	Intermediate	33-43	trans-1,2-Dichloroethene	11/28/2001	1	U	100	No

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HI02-PZM032	Intermediate	33-43	trans-1,2-Dichloroethene	12/4/2001	1	U	100	No
HI02-PZM032	Intermediate	33-43	trans-1,3-Dichloropropene	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	trans-1,3-Dichloropropene	12/4/2001	1	U		No
HI02-PZM032	Intermediate	33-43	trans-1,4-Dichloro-2-butene	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Trichloroethene	11/28/2001	0.32	J	5	No
HI02-PZM032	Intermediate	33-43	Trichloroethene	12/4/2001	0.32	J	5	No
HI02-PZM032	Intermediate	33-43	Trichlorofluoromethane(Freon-11)	11/28/2001	2	U	1,100	No
HI02-PZM032	Intermediate	33-43	Vanadium	12/4/2001	9.5	J	86	No
HI02-PZM032	Intermediate	33-43	Vinyl acetate	11/28/2001	1	U		No
HI02-PZM032	Intermediate	33-43	Vinyl chloride	11/28/2001	2	U	2	No
HI02-PZM032	Intermediate	33-43	Vinyl chloride	12/4/2001	2	U	2	No
HI02-PZM032	Intermediate	33-43	Xylene, total	11/28/2001	3	U	10,000	No
HI02-PZM032	Intermediate	33-43	Xylene, total	12/4/2001	3	U	10,000	No
HI02-PZM032	Intermediate	33-43	Zinc	12/4/2001	4.4	B	6,000	No
HI04-PZM006	Shallow	7-17	1,1,1,2-Tetrachloroethane	11/27/2001	1	U		No
HI04-PZM006	Shallow	7-17	1,1,1-Trichloroethane	11/27/2001	1	U	200	No
HI04-PZM006	Shallow	7-17	1,1,2,2-Tetrachloroethane	11/27/2001	1	U	0.076	No
HI04-PZM006	Shallow	7-17	1,1,2-Trichloroethane	11/27/2001	1	U	5	No
HI04-PZM006	Shallow	7-17	1,1-Dichloroethane	11/27/2001	1	U	2.7	No
HI04-PZM006	Shallow	7-17	1,1-Dichloroethene	11/27/2001	1	U	7	No
HI04-PZM006	Shallow	7-17	1,2,4-Trichlorobenzene	11/27/2001	10	U	70	No
HI04-PZM006	Shallow	7-17	1,2-Dichlorobenzene	11/27/2001	10	U	600	No
HI04-PZM006	Shallow	7-17	1,2-Dichloroethane	11/27/2001	1	U	5	No
HI04-PZM006	Shallow	7-17	1,2-Dichloropropane	11/27/2001	1	U	5	No
HI04-PZM006	Shallow	7-17	1,3-Dichlorobenzene	11/27/2001	10	U		No
HI04-PZM006	Shallow	7-17	1,4-Dichlorobenzene	11/27/2001	10	U	75	No
HI04-PZM006	Shallow	7-17	2,2'-Oxybis(1-chloropropane)	11/27/2001	20	U	0.36	No
HI04-PZM006	Shallow	7-17	2,4,5-Trichlorophenol	11/27/2001	10	U	1,200	No
HI04-PZM006	Shallow	7-17	2,4,6-Trichlorophenol	11/27/2001	10	U	4	No
HI04-PZM006	Shallow	7-17	2,4-Dichlorophenol	11/27/2001	10	U	46	No
HI04-PZM006	Shallow	7-17	2,4-Dimethylphenol	11/27/2001	10	U	360	No
HI04-PZM006	Shallow	7-17	2,4-Dinitrophenol	11/27/2001	50	U	39	No
HI04-PZM006	Shallow	7-17	2,4-Dinitrotoluene	11/27/2001	10	U	0.24	No
HI04-PZM006	Shallow	7-17	2,6-Dinitrotoluene	11/27/2001	10	U	0.048	No
HI04-PZM006	Shallow	7-17	2-Butanone (MEK)	11/27/2001	5	U	5,600	No
HI04-PZM006	Shallow	7-17	2-Chloronaphthalene	11/27/2001	10	U	750	No
HI04-PZM006	Shallow	7-17	2-Chlorophenol	11/27/2001	10	U	91	No
HI04-PZM006	Shallow	7-17	2-Hexanone	11/27/2001	5	U	38	No
HI04-PZM006	Shallow	7-17	2-Methylnaphthalene	11/27/2001	10	U	36	No
HI04-PZM006	Shallow	7-17	2-Methylphenol	11/27/2001	10	U	930	No
HI04-PZM006	Shallow	7-17	2-Nitrophenol	11/27/2001	10	U	190	No
HI04-PZM006	Shallow	7-17	3,3'-Dichlorobenzidine	11/27/2001	50	U	0.12	No
HI04-PZM006	Shallow	7-17	3,3'-Dimethylbenzidine	11/27/2001	50	U		No
HI04-PZM006	Shallow	7-17	4,6-Dinitro-2-methylphenol	11/27/2001	50	U		No
HI04-PZM006	Shallow	7-17	4-Bromophenyl-phenylether	11/27/2001	10	U		No
HI04-PZM006	Shallow	7-17	4-Chloro-3-methylphenol	11/27/2001	10	U		No
HI04-PZM006	Shallow	7-17	4-Chlorophenyl-phenylether	11/27/2001	10	U		No
HI04-PZM006	Shallow	7-17	4-Methyl-2-pentanone (MIBK)	11/27/2001	5	U	1,200	No
HI04-PZM006	Shallow	7-17	4-Methylphenol	11/27/2001	2.5	J	930	No
HI04-PZM006	Shallow	7-17	4-Nitrophenol	11/27/2001	50	U		No
HI04-PZM006	Shallow	7-17	Acenaphthene	11/27/2001	1.2	J	530	No

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HI04-PZM006	Shallow	7-17	Acenaphthylene	11/27/2001	10	U	530	No
HI04-PZM006	Shallow	7-17	Acetone	11/27/2001	9.4	J	14,000	No
HI04-PZM006	Shallow	7-17	Anthracene	11/27/2001	10	U	1,800	No
HI04-PZM006	Shallow	7-17	Antimony	11/27/2001	4.1	U	6	No
HI04-PZM006	Shallow	7-17	Aroclor-1016	11/27/2001	1	U		No
HI04-PZM006	Shallow	7-17	Aroclor-1221	11/27/2001	1	U		No
HI04-PZM006	Shallow	7-17	Aroclor-1232	11/27/2001	1	U		No
HI04-PZM006	Shallow	7-17	Aroclor-1242	11/27/2001	1	U		No
HI04-PZM006	Shallow	7-17	Aroclor-1248	11/27/2001	1	U		No
HI04-PZM006	Shallow	7-17	Aroclor-1254	11/27/2001	1	U		No
HI04-PZM006	Shallow	7-17	Aroclor-1260	11/27/2001	1	U		No
HI04-PZM006	Shallow	7-17	Arsenic	11/27/2001	3.9	J	10	No
HI04-PZM006	Shallow	7-17	Barium	11/27/2001	144	J	2,000	No
HI04-PZM006	Shallow	7-17	Benz(a)anthracene	11/27/2001	10	U	0.0298	No
HI04-PZM006	Shallow	7-17	Benzene	11/27/2001	1	U	5	No
HI04-PZM006	Shallow	7-17	Benzo(a)pyrene	11/27/2001	10	U	0.2	No
HI04-PZM006	Shallow	7-17	Benzo(b)fluoranthene	11/27/2001	10	U	0.25	No
HI04-PZM006	Shallow	7-17	Benzo(g,h,i)perylene	11/27/2001	10	U		No
HI04-PZM006	Shallow	7-17	Benzo(k)fluoranthene	11/27/2001	10	U	2.5	No
HI04-PZM006	Shallow	7-17	Beryllium	11/27/2001	1.1	B	4	No
HI04-PZM006	Shallow	7-17	bis(2-Chloroethoxy)methane	11/27/2001	10	U	59	No
HI04-PZM006	Shallow	7-17	bis(2-Chloroethyl)ether	11/27/2001	10	U	0.014	No
HI04-PZM006	Shallow	7-17	bis(2-Ethylhexyl)phthalate	11/27/2001	12		6	Yes
HI04-PZM006	Shallow	7-17	Bromoform	11/27/2001	1	U	0.13	No
HI04-PZM006	Shallow	7-17	Butylbenzylphthalate	11/27/2001	10	U		No
HI04-PZM006	Shallow	7-17	Cadmium	11/27/2001	0.63	U	5	No
HI04-PZM006	Shallow	7-17	Carbon disulfide	11/27/2001	1	U	810	No
HI04-PZM006	Shallow	7-17	Carbon tetrachloride	11/27/2001	1	U	5	No
HI04-PZM006	Shallow	7-17	Chlorobenzene	11/27/2001	1	U	100	No
HI04-PZM006	Shallow	7-17	Chloroethane	11/27/2001	2	U	21,000	No
HI04-PZM006	Shallow	7-17	Chloroform	11/27/2001	1	U	0.22	No
HI04-PZM006	Shallow	7-17	Chromium	11/27/2001	79.5		100	No
HI04-PZM006	Shallow	7-17	Chrysene	11/27/2001	10	U	25	No
HI04-PZM006	Shallow	7-17	cis-1,3-Dichloropropene	11/27/2001	1	U		No
HI04-PZM006	Shallow	7-17	Cobalt	11/27/2001	4.4	B	6	No
HI04-PZM006	Shallow	7-17	Copper	11/27/2001	22.7	B	1,300	No
HI04-PZM006	Shallow	7-17	Cyanide, amenable	11/27/2001	330		200	Yes
HI04-PZM006	Shallow	7-17	Dibenz(a,h)anthracene	11/27/2001	10	U	0.025	No
HI04-PZM006	Shallow	7-17	Dibenzofuran	11/27/2001	10	U		No
HI04-PZM006	Shallow	7-17	Diethylphthalate	11/27/2001	10	U	15,000	No
HI04-PZM006	Shallow	7-17	Dimethylphthalate	11/27/2001	10	U		No
HI04-PZM006	Shallow	7-17	Di-n-butylphthalate	11/27/2001	10	U	900	No
HI04-PZM006	Shallow	7-17	Di-n-octylphthalate	11/27/2001	10	U	200	No
HI04-PZM006	Shallow	7-17	Ethylbenzene	11/27/2001	1	U	700	No
HI04-PZM006	Shallow	7-17	Fluoranthene	11/27/2001	10	U	800	No
HI04-PZM006	Shallow	7-17	Fluorene	11/27/2001	10	U	290	No
HI04-PZM006	Shallow	7-17	Hexachlorobenzene	11/27/2001	10	U	1	No
HI04-PZM006	Shallow	7-17	Hexachlorobutadiene	11/27/2001	10	U	0.14	No
HI04-PZM006	Shallow	7-17	Hexachlorocyclopentadiene	11/27/2001	50	U	50	No
HI04-PZM006	Shallow	7-17	Hexachloroethane	11/27/2001	10	U	0.33	No
HI04-PZM006	Shallow	7-17	Indeno(1,2,3-cd)pyrene	11/27/2001	10	U	0.25	No

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HI04-PZM006	Shallow	7-17	Isophorone	11/27/2001	10	U		No
HI04-PZM006	Shallow	7-17	Lead	11/27/2001	36.5		15	Yes
HI04-PZM006	Shallow	7-17	Mercury	11/27/2001	0.069	J	2	No
HI04-PZM006	Shallow	7-17	Methylene chloride	11/27/2001	0.73	J	5	No
HI04-PZM006	Shallow	7-17	Naphthalene	11/27/2001	0.89	J	0.17	Yes
HI04-PZM006	Shallow	7-17	Nickel	11/27/2001	8	B	390	No
HI04-PZM006	Shallow	7-17	Nitrobenzene	11/27/2001	10	U	0.14	No
HI04-PZM006	Shallow	7-17	Pentachloroethane	11/27/2001	50	U		No
HI04-PZM006	Shallow	7-17	Pentachlorophenol	11/27/2001	50	U	1	No
HI04-PZM006	Shallow	7-17	Phenanthrene	11/27/2001	0.85	J		No
HI04-PZM006	Shallow	7-17	Phenol	11/27/2001	10	U	5,800	No
HI04-PZM006	Shallow	7-17	Pyrene	11/27/2001	10	U	120	No
HI04-PZM006	Shallow	7-17	Pyridine	11/27/2001	20	U		No
HI04-PZM006	Shallow	7-17	Selenium	11/27/2001	3.2	U	50	No
HI04-PZM006	Shallow	7-17	Silver	11/27/2001	0.75	U	94	No
HI04-PZM006	Shallow	7-17	Sulfide	11/27/2001	1,000	U		No
HI04-PZM006	Shallow	7-17	Tetrachloroethene	11/27/2001	1	U	5	No
HI04-PZM006	Shallow	7-17	Thallium	11/27/2001	5.7	U	2	No
HI04-PZM006	Shallow	7-17	Tin	11/27/2001	240			No
HI04-PZM006	Shallow	7-17	Toluene	11/27/2001	5.9		1,000	No
HI04-PZM006	Shallow	7-17	trans-1,2-Dichloroethene	11/27/2001	1	U	100	No
HI04-PZM006	Shallow	7-17	trans-1,3-Dichloropropene	11/27/2001	1	U		No
HI04-PZM006	Shallow	7-17	Trichloroethene	11/27/2001	1	U	5	No
HI04-PZM006	Shallow	7-17	Vanadium	11/27/2001	8.9	J	86	No
HI04-PZM006	Shallow	7-17	Vinyl chloride	11/27/2001	2	U	2	No
HI04-PZM006	Shallow	7-17	Xylene, total	11/27/2001	3	U	10,000	No
HI04-PZM006	Shallow	7-17	Zinc	11/27/2001	175		6,000	No
HI04-PZM034	Intermediate	35-45	1,1,1,2-Tetrachloroethane	11/27/2001	1	U		No
HI04-PZM034	Intermediate	35-45	1,1,1-Trichloroethane	11/27/2001	1	U	200	No
HI04-PZM034	Intermediate	35-45	1,1,2,2-Tetrachloroethane	11/27/2001	1	U	0.076	No
HI04-PZM034	Intermediate	35-45	1,1,2-Trichloroethane	11/27/2001	1	U	5	No
HI04-PZM034	Intermediate	35-45	1,1-Dichloroethane	11/27/2001	1	U	2.7	No
HI04-PZM034	Intermediate	35-45	1,1-Dichloroethene	11/27/2001	1	U	7	No
HI04-PZM034	Intermediate	35-45	1,2,4-Trichlorobenzene	11/27/2001	10	U	70	No
HI04-PZM034	Intermediate	35-45	1,2-Dichlorobenzene	11/27/2001	10	U	600	No
HI04-PZM034	Intermediate	35-45	1,2-Dichloroethane	11/27/2001	1	U	5	No
HI04-PZM034	Intermediate	35-45	1,2-Dichloropropane	11/27/2001	1	U	5	No
HI04-PZM034	Intermediate	35-45	1,3-Dichlorobenzene	11/27/2001	10	U		No
HI04-PZM034	Intermediate	35-45	1,4-Dichlorobenzene	11/27/2001	10	U	75	No
HI04-PZM034	Intermediate	35-45	2,2'-Oxybis(1-chloropropane)	11/27/2001	20	U	0.36	No
HI04-PZM034	Intermediate	35-45	2,4,5-Trichlorophenol	11/27/2001	10	U	1,200	No
HI04-PZM034	Intermediate	35-45	2,4,6-Trichlorophenol	11/27/2001	10	U	4	No
HI04-PZM034	Intermediate	35-45	2,4-Dichlorophenol	11/27/2001	10	U	46	No
HI04-PZM034	Intermediate	35-45	2,4-Dimethylphenol	11/27/2001	10	U	360	No
HI04-PZM034	Intermediate	35-45	2,4-Dinitrophenol	11/27/2001	50	U	39	No
HI04-PZM034	Intermediate	35-45	2,4-Dinitrotoluene	11/27/2001	10	U	0.24	No
HI04-PZM034	Intermediate	35-45	2,6-Dinitrotoluene	11/27/2001	10	U	0.048	No
HI04-PZM034	Intermediate	35-45	2-Butanone (MEK)	11/27/2001	5	U	5,600	No
HI04-PZM034	Intermediate	35-45	2-Chloronaphthalene	11/27/2001	10	U	750	No
HI04-PZM034	Intermediate	35-45	2-Chlorophenol	11/27/2001	10	U	91	No
HI04-PZM034	Intermediate	35-45	2-Hexanone	11/27/2001	5	U	38	No

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HI04-PZM034	Intermediate	35-45	2-Methylnaphthalene	11/27/2001	10	U	36	No
HI04-PZM034	Intermediate	35-45	2-Methylphenol	11/27/2001	10	U	930	No
HI04-PZM034	Intermediate	35-45	2-Nitrophenol	11/27/2001	10	U	190	No
HI04-PZM034	Intermediate	35-45	3,3'-Dichlorobenzidine	11/27/2001	50	U	0.12	No
HI04-PZM034	Intermediate	35-45	3,3'-Dimethylbenzidine	11/27/2001	50	U		No
HI04-PZM034	Intermediate	35-45	4,6-Dinitro-2-methylphenol	11/27/2001	50	U		No
HI04-PZM034	Intermediate	35-45	4-Bromophenyl-phenylether	11/27/2001	10	U		No
HI04-PZM034	Intermediate	35-45	4-Chloro-3-methylphenol	11/27/2001	10	U		No
HI04-PZM034	Intermediate	35-45	4-Chlorophenyl-phenylether	11/27/2001	10	U		No
HI04-PZM034	Intermediate	35-45	4-Methyl-2-pentanone (MIBK)	11/27/2001	5	U	1,200	No
HI04-PZM034	Intermediate	35-45	4-Methylphenol	11/27/2001	10	U	930	No
HI04-PZM034	Intermediate	35-45	4-Nitrophenol	11/27/2001	50	U		No
HI04-PZM034	Intermediate	35-45	Acenaphthene	11/27/2001	10	U	530	No
HI04-PZM034	Intermediate	35-45	Acenaphthylene	11/27/2001	10	U	530	No
HI04-PZM034	Intermediate	35-45	Acetone	11/27/2001	10	U	14,000	No
HI04-PZM034	Intermediate	35-45	Anthracene	11/27/2001	10	U	1,800	No
HI04-PZM034	Intermediate	35-45	Antimony	11/27/2001	4.1	U	6	No
HI04-PZM034	Intermediate	35-45	Aroclor-1016	11/27/2001	1	U		No
HI04-PZM034	Intermediate	35-45	Aroclor-1221	11/27/2001	1	U		No
HI04-PZM034	Intermediate	35-45	Aroclor-1232	11/27/2001	1	U		No
HI04-PZM034	Intermediate	35-45	Aroclor-1242	11/27/2001	1	U		No
HI04-PZM034	Intermediate	35-45	Aroclor-1248	11/27/2001	1	U		No
HI04-PZM034	Intermediate	35-45	Aroclor-1254	11/27/2001	1	U		No
HI04-PZM034	Intermediate	35-45	Aroclor-1260	11/27/2001	1	U		No
HI04-PZM034	Intermediate	35-45	Arsenic	11/27/2001	11.7		10	Yes
HI04-PZM034	Intermediate	35-45	Barium	11/27/2001	106	J	2,000	No
HI04-PZM034	Intermediate	35-45	Benz(a)anthracene	11/27/2001	10	U	0.0298	No
HI04-PZM034	Intermediate	35-45	Benzene	11/27/2001	1	U	5	No
HI04-PZM034	Intermediate	35-45	Benzo(a)pyrene	11/27/2001	10	U	0.2	No
HI04-PZM034	Intermediate	35-45	Benzo(b)fluoranthene	11/27/2001	10	U	0.25	No
HI04-PZM034	Intermediate	35-45	Benzo(g,h,i)perylene	11/27/2001	10	U		No
HI04-PZM034	Intermediate	35-45	Benzo(k)fluoranthene	11/27/2001	10	U	2.5	No
HI04-PZM034	Intermediate	35-45	Beryllium	11/27/2001	2	B	4	No
HI04-PZM034	Intermediate	35-45	Bicarbonate	11/27/2001	105,000			No
HI04-PZM034	Intermediate	35-45	bis(2-Chloroethoxy)methane	11/27/2001	10	U	59	No
HI04-PZM034	Intermediate	35-45	bis(2-Chloroethyl)ether	11/27/2001	10	U	0.014	No
HI04-PZM034	Intermediate	35-45	bis(2-Ethylhexyl)phthalate	11/27/2001	10	U	6	No
HI04-PZM034	Intermediate	35-45	Bromoform	11/27/2001	1	U	0.13	No
HI04-PZM034	Intermediate	35-45	Butylbenzylphthalate	11/27/2001	10	U		No
HI04-PZM034	Intermediate	35-45	Cadmium	11/27/2001	0.63	U	5	No
HI04-PZM034	Intermediate	35-45	Calcium	11/27/2001	40,900			No
HI04-PZM034	Intermediate	35-45	Carbon disulfide	11/27/2001	1	U	810	No
HI04-PZM034	Intermediate	35-45	Carbon tetrachloride	11/27/2001	1	U	5	No
HI04-PZM034	Intermediate	35-45	Chloride	11/27/2001	286,000			No
HI04-PZM034	Intermediate	35-45	Chlorobenzene	11/27/2001	1	U	100	No
HI04-PZM034	Intermediate	35-45	Chloroethane	11/27/2001	2	U	21,000	No
HI04-PZM034	Intermediate	35-45	Chloroform	11/27/2001	1	U	0.22	No
HI04-PZM034	Intermediate	35-45	Chromium	11/27/2001	5.2		100	No
HI04-PZM034	Intermediate	35-45	Chrysene	11/27/2001	10	U	25	No
HI04-PZM034	Intermediate	35-45	cis-1,3-Dichloropropene	11/27/2001	1	U		No
HI04-PZM034	Intermediate	35-45	Cobalt	11/27/2001	0.86	U	6	No

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HI04-PZM034	Intermediate	35-45	Copper	11/27/2001	6.5	B	1,300	No
HI04-PZM034	Intermediate	35-45	Cyanide, amenable	11/27/2001	28		200	No
HI04-PZM034	Intermediate	35-45	Dibenz(a,h)anthracene	11/27/2001	10	U	0.025	No
HI04-PZM034	Intermediate	35-45	Dibenzofuran	11/27/2001	10	U		No
HI04-PZM034	Intermediate	35-45	Diethylphthalate	11/27/2001	10	U	15,000	No
HI04-PZM034	Intermediate	35-45	Dimethylphthalate	11/27/2001	10	U		No
HI04-PZM034	Intermediate	35-45	Di-n-butylphthalate	11/27/2001	10	U	900	No
HI04-PZM034	Intermediate	35-45	Di-n-octylphthalate	11/27/2001	10	U	200	No
HI04-PZM034	Intermediate	35-45	Ethylbenzene	11/27/2001	1	U	700	No
HI04-PZM034	Intermediate	35-45	Fluoranthene	11/27/2001	10	U	800	No
HI04-PZM034	Intermediate	35-45	Fluorene	11/27/2001	10	U	290	No
HI04-PZM034	Intermediate	35-45	Hexachlorobenzene	11/27/2001	10	U	1	No
HI04-PZM034	Intermediate	35-45	Hexachlorobutadiene	11/27/2001	10	U	0.14	No
HI04-PZM034	Intermediate	35-45	Hexachlorocyclopentadiene	11/27/2001	50	U	50	No
HI04-PZM034	Intermediate	35-45	Hexachloroethane	11/27/2001	10	U	0.33	No
HI04-PZM034	Intermediate	35-45	Indeno(1,2,3-cd)pyrene	11/27/2001	10	U	0.25	No
HI04-PZM034	Intermediate	35-45	Iron	11/27/2001	51,900		14,000	Yes
HI04-PZM034	Intermediate	35-45	Isophorone	11/27/2001	10	U		No
HI04-PZM034	Intermediate	35-45	Lead	11/27/2001	2	B	15	No
HI04-PZM034	Intermediate	35-45	Magnesium	11/27/2001	30,600			No
HI04-PZM034	Intermediate	35-45	Manganese	11/27/2001	6,480		430	Yes
HI04-PZM034	Intermediate	35-45	Mercury	11/27/2001	0.054	U	2	No
HI04-PZM034	Intermediate	35-45	Methylene chloride	11/27/2001	1.1	J	5	No
HI04-PZM034	Intermediate	35-45	Naphthalene	11/27/2001	10	U	0.17	No
HI04-PZM034	Intermediate	35-45	Nickel	11/27/2001	2.4	U	390	No
HI04-PZM034	Intermediate	35-45	Nitrobenzene	11/27/2001	10	U	0.14	No
HI04-PZM034	Intermediate	35-45	Pentachloroethane	11/27/2001	50	U		No
HI04-PZM034	Intermediate	35-45	Pentachlorophenol	11/27/2001	50	U	1	No
HI04-PZM034	Intermediate	35-45	Phenanthrene	11/27/2001	10	U		No
HI04-PZM034	Intermediate	35-45	Phenol	11/27/2001	10	U	5,800	No
HI04-PZM034	Intermediate	35-45	Potassium	11/27/2001	2,970	J		No
HI04-PZM034	Intermediate	35-45	Pyrene	11/27/2001	10	U	120	No
HI04-PZM034	Intermediate	35-45	Pyridine	11/27/2001	20	U		No
HI04-PZM034	Intermediate	35-45	Selenium	11/27/2001	3.2	U	50	No
HI04-PZM034	Intermediate	35-45	Silver	11/27/2001	0.75	U	94	No
HI04-PZM034	Intermediate	35-45	Sodium	11/27/2001	125,000			No
HI04-PZM034	Intermediate	35-45	Sulfate	11/27/2001	40,900			No
HI04-PZM034	Intermediate	35-45	Sulfide	11/27/2001	1,000	U		No
HI04-PZM034	Intermediate	35-45	Tetrachloroethene	11/27/2001	1	U	5	No
HI04-PZM034	Intermediate	35-45	Thallium	11/27/2001	5.7	U	2	No
HI04-PZM034	Intermediate	35-45	Tin	11/27/2001	28.8	U		No
HI04-PZM034	Intermediate	35-45	Toluene	11/27/2001	1	U	1,000	No
HI04-PZM034	Intermediate	35-45	trans-1,2-Dichloroethene	11/27/2001	1	U	100	No
HI04-PZM034	Intermediate	35-45	trans-1,3-Dichloropropene	11/27/2001	1	U		No
HI04-PZM034	Intermediate	35-45	Trichloroethene	11/27/2001	1	U	5	No
HI04-PZM034	Intermediate	35-45	Vanadium	11/27/2001	1.5	U	86	No
HI04-PZM034	Intermediate	35-45	Vinyl chloride	11/27/2001	2	U	2	No
HI04-PZM034	Intermediate	35-45	Xylene, total	11/27/2001	3	U	10,000	No
HI04-PZM034	Intermediate	35-45	Zinc	11/27/2001	11.4	J	6,000	No
HI05-PZM012	Shallow	3-13	1,1,1,2-Tetrachloroethane	11/27/2001	1	U		No
HI05-PZM012	Shallow	3-13	1,1,1-Trichloroethane	11/27/2001	1	U	200	No

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HI05-PZM012	Shallow	3-13	1,1,2,2-Tetrachloroethane	11/27/2001	1	U	0.076	No
HI05-PZM012	Shallow	3-13	1,1,2-Trichloroethane	11/27/2001	1	U	5	No
HI05-PZM012	Shallow	3-13	1,1-Dichloroethane	11/27/2001	1	U	2.7	No
HI05-PZM012	Shallow	3-13	1,1-Dichloroethene	11/27/2001	1	U	7	No
HI05-PZM012	Shallow	3-13	1,2,4-Trichlorobenzene	11/27/2001	10	U	70	No
HI05-PZM012	Shallow	3-13	1,2-Dichlorobenzene	11/27/2001	10	U	600	No
HI05-PZM012	Shallow	3-13	1,2-Dichloroethane	11/27/2001	1	U	5	No
HI05-PZM012	Shallow	3-13	1,2-Dichloropropane	11/27/2001	1	U	5	No
HI05-PZM012	Shallow	3-13	1,3-Dichlorobenzene	11/27/2001	10	U		No
HI05-PZM012	Shallow	3-13	1,4-Dichlorobenzene	11/27/2001	10	U	75	No
HI05-PZM012	Shallow	3-13	2,2'-Oxybis(1-chloropropane)	11/27/2001	20	U	0.36	No
HI05-PZM012	Shallow	3-13	2,4,5-Trichlorophenol	11/27/2001	10	U	1,200	No
HI05-PZM012	Shallow	3-13	2,4,6-Trichlorophenol	11/27/2001	10	U	4	No
HI05-PZM012	Shallow	3-13	2,4-Dichlorophenol	11/27/2001	10	U	46	No
HI05-PZM012	Shallow	3-13	2,4-Dimethylphenol	11/27/2001	14		360	No
HI05-PZM012	Shallow	3-13	2,4-Dinitrophenol	11/27/2001	50	U	39	No
HI05-PZM012	Shallow	3-13	2,4-Dinitrotoluene	11/27/2001	10	U	0.24	No
HI05-PZM012	Shallow	3-13	2,6-Dinitrotoluene	11/27/2001	10	U	0.048	No
HI05-PZM012	Shallow	3-13	2-Butanone (MEK)	11/27/2001	5	U	5,600	No
HI05-PZM012	Shallow	3-13	2-Chloronaphthalene	11/27/2001	10	U	750	No
HI05-PZM012	Shallow	3-13	2-Chlorophenol	11/27/2001	10	U	91	No
HI05-PZM012	Shallow	3-13	2-Hexanone	11/27/2001	5	U	38	No
HI05-PZM012	Shallow	3-13	2-Methylnaphthalene	11/27/2001	10	U	36	No
HI05-PZM012	Shallow	3-13	2-Methylphenol	11/27/2001	10	U	930	No
HI05-PZM012	Shallow	3-13	2-Nitrophenol	11/27/2001	10	U	190	No
HI05-PZM012	Shallow	3-13	3,3'-Dichlorobenzidine	11/27/2001	50	U	0.12	No
HI05-PZM012	Shallow	3-13	3,3'-Dimethylbenzidine	11/27/2001	50	U		No
HI05-PZM012	Shallow	3-13	4,6-Dinitro-2-methylphenol	11/27/2001	50	U		No
HI05-PZM012	Shallow	3-13	4-Bromophenyl-phenylether	11/27/2001	10	U		No
HI05-PZM012	Shallow	3-13	4-Chloro-3-methylphenol	11/27/2001	10	U		No
HI05-PZM012	Shallow	3-13	4-Chlorophenyl-phenylether	11/27/2001	10	U		No
HI05-PZM012	Shallow	3-13	4-Methyl-2-pentanone (MIBK)	11/27/2001	5	U	1,200	No
HI05-PZM012	Shallow	3-13	4-Methylphenol	11/27/2001	3.8	J	930	No
HI05-PZM012	Shallow	3-13	4-Nitrophenol	11/27/2001	50	U		No
HI05-PZM012	Shallow	3-13	Acenaphthene	11/27/2001	10	U	530	No
HI05-PZM012	Shallow	3-13	Acenaphthylene	11/27/2001	10	U	530	No
HI05-PZM012	Shallow	3-13	Acetone	11/27/2001	4.3	J	14,000	No
HI05-PZM012	Shallow	3-13	Anthracene	11/27/2001	10	U	1,800	No
HI05-PZM012	Shallow	3-13	Antimony	11/27/2001	4.1	U	6	No
HI05-PZM012	Shallow	3-13	Aroclor-1016	11/27/2001	1	U		No
HI05-PZM012	Shallow	3-13	Aroclor-1221	11/27/2001	1	U		No
HI05-PZM012	Shallow	3-13	Aroclor-1232	11/27/2001	1	U		No
HI05-PZM012	Shallow	3-13	Aroclor-1242	11/27/2001	1	U		No
HI05-PZM012	Shallow	3-13	Aroclor-1248	11/27/2001	1.3			No
HI05-PZM012	Shallow	3-13	Aroclor-1254	11/27/2001	1	U		No
HI05-PZM012	Shallow	3-13	Aroclor-1260	11/27/2001	1	U		No
HI05-PZM012	Shallow	3-13	Arsenic	11/27/2001	10.8		10	Yes
HI05-PZM012	Shallow	3-13	Barium	11/27/2001	12.6	J	2,000	No
HI05-PZM012	Shallow	3-13	Benz(a)anthracene	11/27/2001	10	U	0.0298	No
HI05-PZM012	Shallow	3-13	Benzene	11/27/2001	1.3		5	No
HI05-PZM012	Shallow	3-13	Benzo(a)pyrene	11/27/2001	10	U	0.2	No

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HI05-PZM012	Shallow	3-13	Benzo(b)fluoranthene	11/27/2001	10	U	0.25	No
HI05-PZM012	Shallow	3-13	Benzo(g,h,i)perylene	11/27/2001	10	U		No
HI05-PZM012	Shallow	3-13	Benzo(k)fluoranthene	11/27/2001	10	U	2.5	No
HI05-PZM012	Shallow	3-13	Beryllium	11/27/2001	2.6	B	4	No
HI05-PZM012	Shallow	3-13	Bicarbonate	1/4/2001	820,000			No
HI05-PZM012	Shallow	3-13	bis(2-Chloroethoxy)methane	11/27/2001	10	U	59	No
HI05-PZM012	Shallow	3-13	bis(2-Chloroethyl)ether	11/27/2001	10	U	0.014	No
HI05-PZM012	Shallow	3-13	bis(2-Ethylhexyl)phthalate	11/27/2001	10	U	6	No
HI05-PZM012	Shallow	3-13	Bromoform	11/27/2001	1	U	0.13	No
HI05-PZM012	Shallow	3-13	Butylbenzylphthalate	11/27/2001	10	U		No
HI05-PZM012	Shallow	3-13	Cadmium	11/27/2001	0.63	U	5	No
HI05-PZM012	Shallow	3-13	Calcium	1/4/2001	280,000			No
HI05-PZM012	Shallow	3-13	Carbon disulfide	11/27/2001	1	U	810	No
HI05-PZM012	Shallow	3-13	Carbon tetrachloride	11/27/2001	1	U	5	No
HI05-PZM012	Shallow	3-13	Chloride	1/4/2001	1,800,000			No
HI05-PZM012	Shallow	3-13	Chlorobenzene	11/27/2001	1	U	100	No
HI05-PZM012	Shallow	3-13	Chloroethane	11/27/2001	2	U	21,000	No
HI05-PZM012	Shallow	3-13	Chloroform	11/27/2001	1	U	0.22	No
HI05-PZM012	Shallow	3-13	Chromium	11/27/2001	234		100	Yes
HI05-PZM012	Shallow	3-13	Chrysene	11/27/2001	10	U	25	No
HI05-PZM012	Shallow	3-13	cis-1,3-Dichloropropene	11/27/2001	1	U		No
HI05-PZM012	Shallow	3-13	Cobalt	11/27/2001	16.1	J	6	Yes
HI05-PZM012	Shallow	3-13	Copper	11/27/2001	48.7		1,300	No
HI05-PZM012	Shallow	3-13	Cyanide, amenable	11/27/2001	200		200	No
HI05-PZM012	Shallow	3-13	Dibenz(a,h)anthracene	11/27/2001	10	U	0.025	No
HI05-PZM012	Shallow	3-13	Dibenzofuran	11/27/2001	10	U		No
HI05-PZM012	Shallow	3-13	Diethylphthalate	11/27/2001	10	U	15,000	No
HI05-PZM012	Shallow	3-13	Dimethylphthalate	11/27/2001	10	U		No
HI05-PZM012	Shallow	3-13	Di-n-butylphthalate	11/27/2001	10	U	900	No
HI05-PZM012	Shallow	3-13	Di-n-octylphthalate	11/27/2001	10	U	200	No
HI05-PZM012	Shallow	3-13	Ethylbenzene	11/27/2001	1	U	700	No
HI05-PZM012	Shallow	3-13	Fluoranthene	11/27/2001	0.65	J	800	No
HI05-PZM012	Shallow	3-13	Fluorene	11/27/2001	10	U	290	No
HI05-PZM012	Shallow	3-13	Hexachlorobenzene	11/27/2001	10	U	1	No
HI05-PZM012	Shallow	3-13	Hexachlorobutadiene	11/27/2001	10	U	0.14	No
HI05-PZM012	Shallow	3-13	Hexachlorocyclopentadiene	11/27/2001	50	U	50	No
HI05-PZM012	Shallow	3-13	Hexachloroethane	11/27/2001	10	U	0.33	No
HI05-PZM012	Shallow	3-13	Indeno(1,2,3-cd)pyrene	11/27/2001	10	U	0.25	No
HI05-PZM012	Shallow	3-13	Iron	1/4/2001	80,000		14,000	Yes
HI05-PZM012	Shallow	3-13	Isophorone	11/27/2001	10	U		No
HI05-PZM012	Shallow	3-13	Lead	11/27/2001	53.7		15	Yes
HI05-PZM012	Shallow	3-13	Magnesium	1/4/2001	210,000			No
HI05-PZM012	Shallow	3-13	Manganese	1/4/2001	1,500		430	Yes
HI05-PZM012	Shallow	3-13	Mercury	11/27/2001	0.13	B	2	No
HI05-PZM012	Shallow	3-13	Methylene chloride	11/27/2001	0.91	J	5	No
HI05-PZM012	Shallow	3-13	Naphthalene	11/27/2001	1	J	0.17	Yes
HI05-PZM012	Shallow	3-13	Nickel	11/27/2001	63.5		390	No
HI05-PZM012	Shallow	3-13	Nitrobenzene	11/27/2001	10	U	0.14	No
HI05-PZM012	Shallow	3-13	Pentachloroethane	11/27/2001	50	U		No
HI05-PZM012	Shallow	3-13	Pentachlorophenol	11/27/2001	50	U	1	No
HI05-PZM012	Shallow	3-13	Phenanthrene	11/27/2001	10	U		No



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HI05-PZM012	Shallow	3-13	Phenol	11/27/2001	10	U	5,800	No
HI05-PZM012	Shallow	3-13	Potassium	1/4/2001	85,000			No
HI05-PZM012	Shallow	3-13	Pyrene	11/27/2001	10	U	120	No
HI05-PZM012	Shallow	3-13	Pyridine	11/27/2001	20	U		No
HI05-PZM012	Shallow	3-13	Selenium	11/27/2001	3.2	U	50	No
HI05-PZM012	Shallow	3-13	Silver	11/27/2001	1.3	J	94	No
HI05-PZM012	Shallow	3-13	Sodium	1/4/2001	1,000,000			No
HI05-PZM012	Shallow	3-13	Sulfate	1/4/2001	1,400,000			No
HI05-PZM012	Shallow	3-13	Sulfide	11/27/2001	1,000	U		No
HI05-PZM012	Shallow	3-13	Tetrachloroethene	11/27/2001	1	U	5	No
HI05-PZM012	Shallow	3-13	Thallium	11/27/2001	5.7	U	2	No
HI05-PZM012	Shallow	3-13	Tin	11/27/2001	1,190			No
HI05-PZM012	Shallow	3-13	Toluene	11/27/2001	0.39	J	1,000	No
HI05-PZM012	Shallow	3-13	Total dissolved solids (TDS)	1/4/2001	4,900,000			No
HI05-PZM012	Shallow	3-13	trans-1,2-Dichloroethene	11/27/2001	1	U	100	No
HI05-PZM012	Shallow	3-13	trans-1,3-Dichloropropene	11/27/2001	1	U		No
HI05-PZM012	Shallow	3-13	Trichloroethene	11/27/2001	1	U	5	No
HI05-PZM012	Shallow	3-13	Vanadium	11/27/2001	13.6	J	86	No
HI05-PZM012	Shallow	3-13	Vinyl chloride	11/27/2001	2	U	2	No
HI05-PZM012	Shallow	3-13	Xylene, total	11/27/2001	0.78	J	10,000	No
HI05-PZM012	Shallow	3-13	Zinc	11/27/2001	271		6,000	No
HI05-PZM046	Intermediate	46-49	1,1,1,2-Tetrachloroethane	11/26/2001	1	U		No
HI05-PZM046	Intermediate	46-49	1,1,1-Trichloroethane	11/26/2001	1	U	200	No
HI05-PZM046	Intermediate	46-49	1,1,2,2-Tetrachloroethane	11/26/2001	1	U	0.076	No
HI05-PZM046	Intermediate	46-49	1,1,2-Trichloroethane	11/26/2001	1	U	5	No
HI05-PZM046	Intermediate	46-49	1,1-Dichloroethane	11/26/2001	1	U	2.7	No
HI05-PZM046	Intermediate	46-49	1,1-Dichloroethene	11/26/2001	1	U	7	No
HI05-PZM046	Intermediate	46-49	1,2,4-Trichlorobenzene	11/26/2001	10	U	70	No
HI05-PZM046	Intermediate	46-49	1,2-Dichlorobenzene	11/26/2001	10	U	600	No
HI05-PZM046	Intermediate	46-49	1,2-Dichloroethane	11/26/2001	1	U	5	No
HI05-PZM046	Intermediate	46-49	1,2-Dichloropropane	11/26/2001	1	U	5	No
HI05-PZM046	Intermediate	46-49	1,3-Dichlorobenzene	11/26/2001	10	U		No
HI05-PZM046	Intermediate	46-49	1,4-Dichlorobenzene	11/26/2001	10	U	75	No
HI05-PZM046	Intermediate	46-49	2,2'-Oxybis(1-chloropropane)	11/26/2001	20	U	0.36	No
HI05-PZM046	Intermediate	46-49	2,4,5-Trichlorophenol	11/26/2001	10	U	1,200	No
HI05-PZM046	Intermediate	46-49	2,4,6-Trichlorophenol	11/26/2001	10	U	4	No
HI05-PZM046	Intermediate	46-49	2,4-Dichlorophenol	11/26/2001	10	U	46	No
HI05-PZM046	Intermediate	46-49	2,4-Dimethylphenol	11/26/2001	10	U	360	No
HI05-PZM046	Intermediate	46-49	2,4-Dinitrophenol	11/26/2001	50	U	39	No
HI05-PZM046	Intermediate	46-49	2,4-Dinitrotoluene	11/26/2001	10	U	0.24	No
HI05-PZM046	Intermediate	46-49	2,6-Dinitrotoluene	11/26/2001	10	U	0.048	No
HI05-PZM046	Intermediate	46-49	2-Butanone (MEK)	11/26/2001	5	U	5,600	No
HI05-PZM046	Intermediate	46-49	2-Chloronaphthalene	11/26/2001	10	U	750	No
HI05-PZM046	Intermediate	46-49	2-Chlorophenol	11/26/2001	10	U	91	No
HI05-PZM046	Intermediate	46-49	2-Hexanone	11/26/2001	5	U	38	No
HI05-PZM046	Intermediate	46-49	2-Methylnaphthalene	11/26/2001	10	U	36	No
HI05-PZM046	Intermediate	46-49	2-Methylphenol	11/26/2001	10	U	930	No
HI05-PZM046	Intermediate	46-49	2-Nitrophenol	11/26/2001	10	U	190	No
HI05-PZM046	Intermediate	46-49	3,3'-Dichlorobenzidine	11/26/2001	50	U	0.12	No
HI05-PZM046	Intermediate	46-49	3,3'-Dimethylbenzidine	11/26/2001	50	U		No
HI05-PZM046	Intermediate	46-49	4,6-Dinitro-2-methylphenol	11/26/2001	50	U		No

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HI05-PZM046	Intermediate	46-49	4-Bromophenyl-phenylether	11/26/2001	10	U		No
HI05-PZM046	Intermediate	46-49	4-Chloro-3-methylphenol	11/26/2001	10	U		No
HI05-PZM046	Intermediate	46-49	4-Chlorophenyl-phenylether	11/26/2001	10	U		No
HI05-PZM046	Intermediate	46-49	4-Methyl-2-pentanone (MIBK)	11/26/2001	5	U	1,200	No
HI05-PZM046	Intermediate	46-49	4-Methylphenol	11/26/2001	10	U	930	No
HI05-PZM046	Intermediate	46-49	4-Nitrophenol	11/26/2001	50	U		No
HI05-PZM046	Intermediate	46-49	Acenaphthene	11/26/2001	10	U	530	No
HI05-PZM046	Intermediate	46-49	Acenaphthylene	11/26/2001	10	U	530	No
HI05-PZM046	Intermediate	46-49	Acetone	11/26/2001	10	U	14,000	No
HI05-PZM046	Intermediate	46-49	Anthracene	11/26/2001	10	U	1,800	No
HI05-PZM046	Intermediate	46-49	Antimony	11/26/2001	4.1	U	6	No
HI05-PZM046	Intermediate	46-49	Aroclor-1016	11/26/2001	1	U		No
HI05-PZM046	Intermediate	46-49	Aroclor-1221	11/26/2001	1	U		No
HI05-PZM046	Intermediate	46-49	Aroclor-1232	11/26/2001	1	U		No
HI05-PZM046	Intermediate	46-49	Aroclor-1242	11/26/2001	1	U		No
HI05-PZM046	Intermediate	46-49	Aroclor-1248	11/26/2001	1	U		No
HI05-PZM046	Intermediate	46-49	Aroclor-1254	11/26/2001	1	U		No
HI05-PZM046	Intermediate	46-49	Aroclor-1260	11/26/2001	1	U		No
HI05-PZM046	Intermediate	46-49	Arsenic	11/26/2001	40.8		10	Yes
HI05-PZM046	Intermediate	46-49	Arsenic	11/26/2001	43.8		10	Yes
HI05-PZM046	Intermediate	46-49	Barium	11/26/2001	178	J	2,000	No
HI05-PZM046	Intermediate	46-49	Barium	11/26/2001	195	J	2,000	No
HI05-PZM046	Intermediate	46-49	Benz(a)anthracene	11/26/2001	10	U	0.0298	No
HI05-PZM046	Intermediate	46-49	Benzene	11/26/2001	1	U	5	No
HI05-PZM046	Intermediate	46-49	Benzo(a)pyrene	11/26/2001	10	U	0.2	No
HI05-PZM046	Intermediate	46-49	Benzo(b)fluoranthene	11/26/2001	10	U	0.25	No
HI05-PZM046	Intermediate	46-49	Benzo(g,h,i)perylene	11/26/2001	10	U		No
HI05-PZM046	Intermediate	46-49	Benzo(k)fluoranthene	11/26/2001	10	U	2.5	No
HI05-PZM046	Intermediate	46-49	Beryllium	11/26/2001	1.6	B	4	No
HI05-PZM046	Intermediate	46-49	Beryllium	11/26/2001	2.3	B	4	No
HI05-PZM046	Intermediate	46-49	Bicarbonate	1/4/2001	110,000			No
HI05-PZM046	Intermediate	46-49	bis(2-Chloroethoxy)methane	11/26/2001	10	U	59	No
HI05-PZM046	Intermediate	46-49	bis(2-Chloroethyl)ether	11/26/2001	10	U	0.014	No
HI05-PZM046	Intermediate	46-49	bis(2-Ethylhexyl)phthalate	11/26/2001	10	U	6	No
HI05-PZM046	Intermediate	46-49	Bromoform	11/26/2001	1	U	0.13	No
HI05-PZM046	Intermediate	46-49	Butylbenzylphthalate	11/26/2001	10	U		No
HI05-PZM046	Intermediate	46-49	Cadmium	11/26/2001	0.63	U	5	No
HI05-PZM046	Intermediate	46-49	Calcium	1/4/2001	90,000			No
HI05-PZM046	Intermediate	46-49	Carbon disulfide	11/26/2001	1	U	810	No
HI05-PZM046	Intermediate	46-49	Carbon tetrachloride	11/26/2001	1	U	5	No
HI05-PZM046	Intermediate	46-49	Chloride	1/4/2001	720,000			No
HI05-PZM046	Intermediate	46-49	Chlorobenzene	11/26/2001	1	U	100	No
HI05-PZM046	Intermediate	46-49	Chloroethane	11/26/2001	2	U	21,000	No
HI05-PZM046	Intermediate	46-49	Chloroform	11/26/2001	1	U	0.22	No
HI05-PZM046	Intermediate	46-49	Chromium	11/26/2001	3.1	J	100	No
HI05-PZM046	Intermediate	46-49	Chromium	11/26/2001	8.6		100	No
HI05-PZM046	Intermediate	46-49	Chrysene	11/26/2001	10	U	25	No
HI05-PZM046	Intermediate	46-49	cis-1,3-Dichloropropene	11/26/2001	1	U		No
HI05-PZM046	Intermediate	46-49	Cobalt	11/26/2001	3.9	B	6	No
HI05-PZM046	Intermediate	46-49	Cobalt	11/26/2001	5.5	B	6	No
HI05-PZM046	Intermediate	46-49	Copper	11/26/2001	4.3	B	1,300	No

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HI05-PZM046	Intermediate	46-49	Copper	11/26/2001	5.4	B	1,300	No
HI05-PZM046	Intermediate	46-49	Cyanide, amenable	11/26/2001	3		200	No
HI05-PZM046	Intermediate	46-49	Cyanide, amenable	11/26/2001	5		200	No
HI05-PZM046	Intermediate	46-49	Dibenz(a,h)anthracene	11/26/2001	10	U	0.025	No
HI05-PZM046	Intermediate	46-49	Dibenzofuran	11/26/2001	10	U		No
HI05-PZM046	Intermediate	46-49	Diethylphthalate	11/26/2001	10	U	15,000	No
HI05-PZM046	Intermediate	46-49	Dimethylphthalate	11/26/2001	10	U		No
HI05-PZM046	Intermediate	46-49	Di-n-butylphthalate	11/26/2001	10	U	900	No
HI05-PZM046	Intermediate	46-49	Di-n-octylphthalate	11/26/2001	10	U	200	No
HI05-PZM046	Intermediate	46-49	Ethylbenzene	11/26/2001	1	U	700	No
HI05-PZM046	Intermediate	46-49	Fluoranthene	11/26/2001	10	U	800	No
HI05-PZM046	Intermediate	46-49	Fluorene	11/26/2001	10	U	290	No
HI05-PZM046	Intermediate	46-49	Hexachlorobenzene	11/26/2001	10	U	1	No
HI05-PZM046	Intermediate	46-49	Hexachlorobutadiene	11/26/2001	10	U	0.14	No
HI05-PZM046	Intermediate	46-49	Hexachlorocyclopentadiene	11/26/2001	50	U	50	No
HI05-PZM046	Intermediate	46-49	Hexachloroethane	11/26/2001	10	U	0.33	No
HI05-PZM046	Intermediate	46-49	Indeno(1,2,3-cd)pyrene	11/26/2001	10	U	0.25	No
HI05-PZM046	Intermediate	46-49	Iron	1/4/2001	58,000		14,000	Yes
HI05-PZM046	Intermediate	46-49	Isophorone	11/26/2001	10	U		No
HI05-PZM046	Intermediate	46-49	Lead	11/26/2001	2.1	B	15	No
HI05-PZM046	Intermediate	46-49	Lead	11/26/2001	3.3	B	15	No
HI05-PZM046	Intermediate	46-49	Magnesium	1/4/2001	50,000			No
HI05-PZM046	Intermediate	46-49	Manganese	1/4/2001	6,700		430	Yes
HI05-PZM046	Intermediate	46-49	Mercury	11/26/2001	0.054	U	2	No
HI05-PZM046	Intermediate	46-49	Mercury	11/26/2001	0.074	J	2	No
HI05-PZM046	Intermediate	46-49	Methylene chloride	11/26/2001	0.72	B	5	No
HI05-PZM046	Intermediate	46-49	Methylene chloride	11/26/2001	2	U	5	No
HI05-PZM046	Intermediate	46-49	Naphthalene	11/26/2001	10	U	0.17	No
HI05-PZM046	Intermediate	46-49	Nickel	11/26/2001	3.6	J	390	No
HI05-PZM046	Intermediate	46-49	Nickel	11/26/2001	5.3	J	390	No
HI05-PZM046	Intermediate	46-49	Nitrobenzene	11/26/2001	10	U	0.14	No
HI05-PZM046	Intermediate	46-49	n-Nitroso-di-n-propylamine	11/26/2001	10	U	0.011	No
HI05-PZM046	Intermediate	46-49	Pentachloroethane	11/26/2001	50	U		No
HI05-PZM046	Intermediate	46-49	Pentachlorophenol	11/26/2001	50	U	1	No
HI05-PZM046	Intermediate	46-49	Phenanthrene	11/26/2001	10	U		No
HI05-PZM046	Intermediate	46-49	Phenol	11/26/2001	10	U	5,800	No
HI05-PZM046	Intermediate	46-49	Potassium	1/4/2001	10,000			No
HI05-PZM046	Intermediate	46-49	Pyrene	11/26/2001	10	U	120	No
HI05-PZM046	Intermediate	46-49	Pyridine	11/26/2001	20	U		No
HI05-PZM046	Intermediate	46-49	Selenium	11/26/2001	3.2	U	50	No
HI05-PZM046	Intermediate	46-49	Silver	11/26/2001	0.75	U	94	No
HI05-PZM046	Intermediate	46-49	Silver	11/26/2001	0.83	J	94	No
HI05-PZM046	Intermediate	46-49	Sodium	1/4/2001	290,000			No
HI05-PZM046	Intermediate	46-49	Sulfate	1/4/2001	57,000			No
HI05-PZM046	Intermediate	46-49	Sulfide	11/26/2001	1,000	U		No
HI05-PZM046	Intermediate	46-49	Tetrachloroethene	11/26/2001	1	U	5	No
HI05-PZM046	Intermediate	46-49	Thallium	11/26/2001	5.7	U	2	No
HI05-PZM046	Intermediate	46-49	Thallium	11/26/2001	6.1	J	2	Yes
HI05-PZM046	Intermediate	46-49	Tin	11/26/2001	28.8	U		No
HI05-PZM046	Intermediate	46-49	Toluene	11/26/2001	1	U	1,000	No
HI05-PZM046	Intermediate	46-49	Total dissolved solids (TDS)	1/4/2001	1,500,000			No

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HI05-PZM046	Intermediate	46-49	trans-1,2-Dichloroethene	11/26/2001	1	U	100	No
HI05-PZM046	Intermediate	46-49	trans-1,3-Dichloropropene	11/26/2001	1	U		No
HI05-PZM046	Intermediate	46-49	Trichloroethene	11/26/2001	1	U	5	No
HI05-PZM046	Intermediate	46-49	Vanadium	11/26/2001	2.7	J	86	No
HI05-PZM046	Intermediate	46-49	Vanadium	11/26/2001	6.9	J	86	No
HI05-PZM046	Intermediate	46-49	Vinyl chloride	11/26/2001	2	U	2	No
HI05-PZM046	Intermediate	46-49	Xylene, total	11/26/2001	3	U	10,000	No
HI05-PZM046	Intermediate	46-49	Zinc	11/26/2001	63.3		6,000	No
HI05-PZM046	Intermediate	46-49	Zinc	11/26/2001	96.1		6,000	No
HI05-PZM108	Lower	107-110	1,1,1-Trichloroethane	10/1/2002	5	U	200	No
HI05-PZM108	Lower	107-110	1,1,2,2-Tetrachloroethane	10/1/2002	5	U	0.076	No
HI05-PZM108	Lower	107-110	1,1,2-Trichloroethane	10/1/2002	5	U	5	No
HI05-PZM108	Lower	107-110	1,1-Dichloroethane	10/1/2002	5	U	2.7	No
HI05-PZM108	Lower	107-110	1,1-Dichloroethene	10/1/2002	5	U	7	No
HI05-PZM108	Lower	107-110	1,2,4-Trichlorobenzene	10/1/2002	10	U	70	No
HI05-PZM108	Lower	107-110	1,2-Dichloroethane	10/1/2002	5	U	5	No
HI05-PZM108	Lower	107-110	1,2-Dichloropropane	10/1/2002	5	U	5	No
HI05-PZM108	Lower	107-110	1,3-Dichlorobenzene	10/1/2002	10	U		No
HI05-PZM108	Lower	107-110	2,4,5-Trichlorophenol	10/1/2002	10	U	1,200	No
HI05-PZM108	Lower	107-110	2,4,6-Trichlorophenol	10/1/2002	10	U	4	No
HI05-PZM108	Lower	107-110	2,4-Dichlorophenol	10/1/2002	10	U	46	No
HI05-PZM108	Lower	107-110	2,4-Dimethylphenol	10/1/2002	10	U	360	No
HI05-PZM108	Lower	107-110	2,4-Dinitrophenol	10/1/2002	50	U	39	No
HI05-PZM108	Lower	107-110	2,4-Dinitrotoluene	10/1/2002	10	U	0.24	No
HI05-PZM108	Lower	107-110	2,6-Dinitrotoluene	10/1/2002	10	U	0.048	No
HI05-PZM108	Lower	107-110	2-Butanone (MEK)	10/1/2002	100	U	5,600	No
HI05-PZM108	Lower	107-110	2-Chloronaphthalene	10/1/2002	10	U	750	No
HI05-PZM108	Lower	107-110	2-Chlorophenol	10/1/2002	10	U	91	No
HI05-PZM108	Lower	107-110	2-Hexanone	10/1/2002	50	U	38	No
HI05-PZM108	Lower	107-110	2-Methylnaphthalene	10/1/2002	10	U	36	No
HI05-PZM108	Lower	107-110	2-Methylphenol	10/1/2002	10	U	930	No
HI05-PZM108	Lower	107-110	2-Nitrophenol	10/1/2002	10	U	190	No
HI05-PZM108	Lower	107-110	3,3'-Dichlorobenzidine	10/1/2002	20	U	0.12	No
HI05-PZM108	Lower	107-110	4,6-Dinitro-2-methylphenol	10/1/2002	50	U		No
HI05-PZM108	Lower	107-110	4-Bromophenyl-phenylether	10/1/2002	10	U		No
HI05-PZM108	Lower	107-110	4-Chloro-3-methylphenol	10/1/2002	20	U		No
HI05-PZM108	Lower	107-110	4-Chlorophenyl-phenylether	10/1/2002	10	U		No
HI05-PZM108	Lower	107-110	4-Methyl-2-pentanone (MIBK)	10/1/2002	50	U	1,200	No
HI05-PZM108	Lower	107-110	4-Nitrophenol	10/1/2002	50	U		No
HI05-PZM108	Lower	107-110	Acenaphthene	10/1/2002	10	U	530	No
HI05-PZM108	Lower	107-110	Acenaphthylene	10/1/2002	10	U	530	No
HI05-PZM108	Lower	107-110	Acetone	10/1/2002	100	U	14,000	No
HI05-PZM108	Lower	107-110	Anthracene	10/1/2002	10	U	1,800	No
HI05-PZM108	Lower	107-110	Benz(a)anthracene	10/1/2002	10	U	0.0298	No
HI05-PZM108	Lower	107-110	Benzene	10/1/2002	5	U	5	No
HI05-PZM108	Lower	107-110	Benzo(a)pyrene	10/1/2002	10	U	0.2	No
HI05-PZM108	Lower	107-110	Benzo(b)fluoranthene	10/1/2002	10	U	0.25	No
HI05-PZM108	Lower	107-110	Benzo(g,h,i)perylene	10/1/2002	10	U		No
HI05-PZM108	Lower	107-110	Benzo(k)fluoranthene	10/1/2002	10	U	2.5	No
HI05-PZM108	Lower	107-110	Bicarbonate	1/4/2001	28,000			No
HI05-PZM108	Lower	107-110	bis(2-Chloroethoxy)methane	10/1/2002	10	U	59	No

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HI05-PZM108	Lower	107-110	bis(2-Chloroethyl)ether	10/1/2002	10	U	0.014	No
HI05-PZM108	Lower	107-110	bis(2-Ethylhexyl)phthalate	10/1/2002	10	U	6	No
HI05-PZM108	Lower	107-110	Bromoform	10/1/2002	5	U	0.13	No
HI05-PZM108	Lower	107-110	Butylbenzylphthalate	10/1/2002	10	U		No
HI05-PZM108	Lower	107-110	Calcium	1/4/2001	120,000			No
HI05-PZM108	Lower	107-110	Carbon disulfide	10/1/2002	5	U	810	No
HI05-PZM108	Lower	107-110	Carbon tetrachloride	10/1/2002	5	U	5	No
HI05-PZM108	Lower	107-110	Chloride	10/1/2000	3,500,000			No
HI05-PZM108	Lower	107-110	Chloride	1/4/2001	3,500,000			No
HI05-PZM108	Lower	107-110	Chlorobenzene	10/1/2002	5	U	100	No
HI05-PZM108	Lower	107-110	Chloroethane	10/1/2002	10	U	21,000	No
HI05-PZM108	Lower	107-110	Chloroform	10/1/2002	5	U	0.22	No
HI05-PZM108	Lower	107-110	Chrysene	10/1/2002	10	U	25	No
HI05-PZM108	Lower	107-110	cis-1,3-Dichloropropene	10/1/2002	5	U		No
HI05-PZM108	Lower	107-110	Dibenz[a,h]anthracene	10/1/2002	10	U	0.025	No
HI05-PZM108	Lower	107-110	Dibenzofuran	10/1/2002	10	U		No
HI05-PZM108	Lower	107-110	Diethylphthalate	10/1/2002	10	U	15,000	No
HI05-PZM108	Lower	107-110	Dimethylphthalate	10/1/2002	10	U		No
HI05-PZM108	Lower	107-110	Di-n-butylphthalate	10/1/2002	10	U	900	No
HI05-PZM108	Lower	107-110	Di-n-octylphthalate	10/1/2002	10	U	200	No
HI05-PZM108	Lower	107-110	Ethylbenzene	10/1/2002	5	U	700	No
HI05-PZM108	Lower	107-110	Fluoranthene	10/1/2002	10	U	800	No
HI05-PZM108	Lower	107-110	Fluorene	10/1/2002	10	U	290	No
HI05-PZM108	Lower	107-110	Hexachlorobenzene	10/1/2002	10	U	1	No
HI05-PZM108	Lower	107-110	Hexachlorobutadiene	10/1/2002	10	U	0.14	No
HI05-PZM108	Lower	107-110	Hexachlorocyclopentadiene	10/1/2002	10	U	50	No
HI05-PZM108	Lower	107-110	Hexachloroethane	10/1/2002	10	U	0.33	No
HI05-PZM108	Lower	107-110	Indeno(1,2,3-cd)pyrene	10/1/2002	10	U	0.25	No
HI05-PZM108	Lower	107-110	Iron	10/1/2000	63,000		14,000	Yes
HI05-PZM108	Lower	107-110	Iron	1/4/2001	63,000		14,000	Yes
HI05-PZM108	Lower	107-110	Isophorone	10/1/2002	10	U		No
HI05-PZM108	Lower	107-110	Magnesium	1/4/2001	220,000			No
HI05-PZM108	Lower	107-110	Manganese	1/4/2001	4,000		430	Yes
HI05-PZM108	Lower	107-110	Methylene chloride	10/1/2002	5	U	5	No
HI05-PZM108	Lower	107-110	Naphthalene	10/1/2002	10	U	0.17	No
HI05-PZM108	Lower	107-110	Nitrobenzene	10/1/2002	10	U	0.14	No
HI05-PZM108	Lower	107-110	Pentachlorophenol	10/1/2002	50	U	1	No
HI05-PZM108	Lower	107-110	Phenanthrene	10/1/2002	10	U		No
HI05-PZM108	Lower	107-110	Phenol	10/1/2002	10	U	5,800	No
HI05-PZM108	Lower	107-110	Potassium	1/4/2001	46,000			No
HI05-PZM108	Lower	107-110	Pyrene	10/1/2002	10	U	120	No
HI05-PZM108	Lower	107-110	Sodium	1/4/2001	1,900,000			No
HI05-PZM108	Lower	107-110	Sulfate	10/1/2000	610,000			No
HI05-PZM108	Lower	107-110	Sulfate	1/4/2001	610,000			No
HI05-PZM108	Lower	107-110	Tetrachloroethene	10/1/2002	5	U	5	No
HI05-PZM108	Lower	107-110	Toluene	10/1/2002	5	U	1,000	No
HI05-PZM108	Lower	107-110	Total dissolved solids (TDS)	1/4/2001	6,300,000			No
HI05-PZM108	Lower	107-110	trans-1,2-Dichloroethene	10/1/2002	5	U	100	No
HI05-PZM108	Lower	107-110	trans-1,3-Dichloropropene	10/1/2002	5	U		No
HI05-PZM108	Lower	107-110	Trichloroethene	10/1/2002	5	U	5	No
HI05-PZM108	Lower	107-110	Vinyl chloride	10/1/2002	10	U	2	No

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HI05-PZM108	Lower	107-110	Xylenes	10/1/2002	5	U	10,000	No
HI07-PZM005	Shallow	4-14	1,1,1,2-Tetrachloroethane	11/28/2001	1	U		No
HI07-PZM005	Shallow	4-14	1,1,1,2-Tetrachloroethane	7/1/2004	1	U		No
HI07-PZM005	Shallow	4-14	1,1,1-Trichloroethane	11/28/2001	1	U	200	No
HI07-PZM005	Shallow	4-14	1,1,1-Trichloroethane	7/1/2004	1	U	200	No
HI07-PZM005	Shallow	4-14	1,1,2,2-Tetrachloroethane	11/28/2001	1	U	0.076	No
HI07-PZM005	Shallow	4-14	1,1,2,2-Tetrachloroethane	7/1/2004	1	U	0.076	No
HI07-PZM005	Shallow	4-14	1,1,2-Trichloroethane	11/28/2001	1	U	5	No
HI07-PZM005	Shallow	4-14	1,1,2-Trichloroethane	7/1/2004	1	U	5	No
HI07-PZM005	Shallow	4-14	1,1-Dichloroethane	11/28/2001	1	U	2.7	No
HI07-PZM005	Shallow	4-14	1,1-Dichloroethane	7/1/2004	1	U	2.7	No
HI07-PZM005	Shallow	4-14	1,1-Dichloroethene	11/28/2001	1	U	7	No
HI07-PZM005	Shallow	4-14	1,1-Dichloroethene	7/1/2004	1	U	7	No
HI07-PZM005	Shallow	4-14	1,2,4-Trichlorobenzene	11/28/2001	10	U	70	No
HI07-PZM005	Shallow	4-14	1,2,4-Trichlorobenzene	7/1/2004	10	U	70	No
HI07-PZM005	Shallow	4-14	1,2-Dichlorobenzene	11/28/2001	10	U	600	No
HI07-PZM005	Shallow	4-14	1,2-Dichlorobenzene	7/1/2004	10	U	600	No
HI07-PZM005	Shallow	4-14	1,2-Dichloroethane	11/28/2001	1	U	5	No
HI07-PZM005	Shallow	4-14	1,2-Dichloroethane	7/1/2004	1	U	5	No
HI07-PZM005	Shallow	4-14	1,2-Dichloropropane	11/28/2001	1	U	5	No
HI07-PZM005	Shallow	4-14	1,2-Dichloropropane	7/1/2004	1	U	5	No
HI07-PZM005	Shallow	4-14	1,3-Dichlorobenzene	11/28/2001	10	U		No
HI07-PZM005	Shallow	4-14	1,3-Dichlorobenzene	7/1/2004	10	U		No
HI07-PZM005	Shallow	4-14	1,4-Dichlorobenzene	11/28/2001	10	U	75	No
HI07-PZM005	Shallow	4-14	1,4-Dichlorobenzene	7/1/2004	10	U	75	No
HI07-PZM005	Shallow	4-14	2,2'-Oxybis(1-chloropropane)	11/28/2001	20	U	0.36	No
HI07-PZM005	Shallow	4-14	2,4,5-Trichlorophenol	11/28/2001	10	U	1,200	No
HI07-PZM005	Shallow	4-14	2,4,5-Trichlorophenol	7/1/2004	10	U	1,200	No
HI07-PZM005	Shallow	4-14	2,4,6-Trichlorophenol	11/28/2001	10	U	4	No
HI07-PZM005	Shallow	4-14	2,4,6-Trichlorophenol	7/1/2004	10	U	4	No
HI07-PZM005	Shallow	4-14	2,4-Dichlorophenol	11/28/2001	10	U	46	No
HI07-PZM005	Shallow	4-14	2,4-Dichlorophenol	7/1/2004	10	U	46	No
HI07-PZM005	Shallow	4-14	2,4-Dimethylphenol	11/28/2001	22		360	No
HI07-PZM005	Shallow	4-14	2,4-Dimethylphenol	7/1/2004	14		360	No
HI07-PZM005	Shallow	4-14	2,4-Dinitrophenol	11/28/2001	50	U	39	No
HI07-PZM005	Shallow	4-14	2,4-Dinitrophenol	7/1/2004	50	U	39	No
HI07-PZM005	Shallow	4-14	2,4-Dinitrotoluene	11/28/2001	10	U	0.24	No
HI07-PZM005	Shallow	4-14	2,4-Dinitrotoluene	7/1/2004	10	U	0.24	No
HI07-PZM005	Shallow	4-14	2,6-Dinitrotoluene	11/28/2001	10	U	0.048	No
HI07-PZM005	Shallow	4-14	2,6-Dinitrotoluene	7/1/2004	10	U	0.048	No
HI07-PZM005	Shallow	4-14	2-Butanone (MEK)	11/28/2001	5	U	5,600	No
HI07-PZM005	Shallow	4-14	2-Butanone (MEK)	7/1/2004	5	U	5,600	No
HI07-PZM005	Shallow	4-14	2-Chloronaphthalene	11/28/2001	10	U	750	No
HI07-PZM005	Shallow	4-14	2-Chloronaphthalene	7/1/2004	10	U	750	No
HI07-PZM005	Shallow	4-14	2-Chlorophenol	11/28/2001	10	U	91	No
HI07-PZM005	Shallow	4-14	2-Chlorophenol	7/1/2004	10	U	91	No
HI07-PZM005	Shallow	4-14	2-Hexanone	11/28/2001	5	U	38	No
HI07-PZM005	Shallow	4-14	2-Hexanone	7/1/2004	5	U	38	No
HI07-PZM005	Shallow	4-14	2-Methylnaphthalene	11/28/2001	2.4	J	36	No
HI07-PZM005	Shallow	4-14	2-Methylnaphthalene	7/1/2004	10	U	36	No
HI07-PZM005	Shallow	4-14	2-Methylphenol	11/28/2001	0.94	J	930	No

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HI07-PZM005	Shallow	4-14	2-Methylphenol	7/1/2004	10	U	930	No
HI07-PZM005	Shallow	4-14	2-Nitrophenol	11/28/2001	10	U	190	No
HI07-PZM005	Shallow	4-14	2-Nitrophenol	7/1/2004	10	U	190	No
HI07-PZM005	Shallow	4-14	3-&4-Methylphenol	7/1/2004	8.2	J	930	No
HI07-PZM005	Shallow	4-14	3,3'-Dichlorobenzidine	11/28/2001	50	U	0.12	No
HI07-PZM005	Shallow	4-14	3,3'-Dichlorobenzidine	7/1/2004	20	U	0.12	No
HI07-PZM005	Shallow	4-14	3,3'-Dimethylbenzidine	11/28/2001	50	U		No
HI07-PZM005	Shallow	4-14	3,3'-Dimethylbenzidine	7/1/2004	50	U		No
HI07-PZM005	Shallow	4-14	4,6-Dinitro-2-methylphenol	11/28/2001	50	U		No
HI07-PZM005	Shallow	4-14	4,6-Dinitro-2-methylphenol	7/1/2004	50	U		No
HI07-PZM005	Shallow	4-14	4-Bromophenyl-phenylether	11/28/2001	10	U		No
HI07-PZM005	Shallow	4-14	4-Bromophenyl-phenylether	7/1/2004	10	U		No
HI07-PZM005	Shallow	4-14	4-Chloro-3-methylphenol	11/28/2001	10	U		No
HI07-PZM005	Shallow	4-14	4-Chloro-3-methylphenol	7/1/2004	10	U		No
HI07-PZM005	Shallow	4-14	4-Chlorophenyl-phenylether	11/28/2001	10	U		No
HI07-PZM005	Shallow	4-14	4-Chlorophenyl-phenylether	7/1/2004	10	U		No
HI07-PZM005	Shallow	4-14	4-Methyl-2-pentanone (MIBK)	11/28/2001	5	U	1,200	No
HI07-PZM005	Shallow	4-14	4-Methyl-2-pentanone (MIBK)	7/1/2004	5	U	1,200	No
HI07-PZM005	Shallow	4-14	4-Methylphenol	11/28/2001	10		930	No
HI07-PZM005	Shallow	4-14	4-Nitrophenol	11/28/2001	50	U		No
HI07-PZM005	Shallow	4-14	4-Nitrophenol	7/1/2004	50	U		No
HI07-PZM005	Shallow	4-14	Acenaphthene	11/28/2001	0.85	J	530	No
HI07-PZM005	Shallow	4-14	Acenaphthene	7/1/2004	10	U	530	No
HI07-PZM005	Shallow	4-14	Acenaphthylene	11/28/2001	1.2	J	530	No
HI07-PZM005	Shallow	4-14	Acenaphthylene	7/1/2004	10	U	530	No
HI07-PZM005	Shallow	4-14	Acetone	11/28/2001	10	U	14,000	No
HI07-PZM005	Shallow	4-14	Acetone	7/1/2004	6.8		14,000	No
HI07-PZM005	Shallow	4-14	Anthracene	11/28/2001	10	U	1,800	No
HI07-PZM005	Shallow	4-14	Anthracene	7/1/2004	10	U	1,800	No
HI07-PZM005	Shallow	4-14	Antimony	11/28/2001	4.1	U	6	No
HI07-PZM005	Shallow	4-14	Antimony	7/1/2004	2	U	6	No
HI07-PZM005	Shallow	4-14	Antimony, dissolved	7/1/2004	2	U	6	No
HI07-PZM005	Shallow	4-14	Aroclor-1016	11/28/2001	1	U		No
HI07-PZM005	Shallow	4-14	Aroclor-1221	11/28/2001	1	U		No
HI07-PZM005	Shallow	4-14	Aroclor-1232	11/28/2001	1	U		No
HI07-PZM005	Shallow	4-14	Aroclor-1242	11/28/2001	1	U		No
HI07-PZM005	Shallow	4-14	Aroclor-1248	11/28/2001	1	U		No
HI07-PZM005	Shallow	4-14	Aroclor-1254	11/28/2001	1	U		No
HI07-PZM005	Shallow	4-14	Aroclor-1260	11/28/2001	1	U		No
HI07-PZM005	Shallow	4-14	Arsenic	11/28/2001	2	U	10	No
HI07-PZM005	Shallow	4-14	Arsenic	7/1/2004	5	U	10	No
HI07-PZM005	Shallow	4-14	Arsenic, dissolved	7/1/2004	5	U	10	No
HI07-PZM005	Shallow	4-14	Barium	11/28/2001	137	J	2,000	No
HI07-PZM005	Shallow	4-14	Barium	7/1/2004	110		2,000	No
HI07-PZM005	Shallow	4-14	Barium, dissolved	7/1/2004	110		2,000	No
HI07-PZM005	Shallow	4-14	Benz(a)anthracene	11/28/2001	10	U	0.0298	No
HI07-PZM005	Shallow	4-14	Benz(a)anthracene	7/1/2004	10	U	0.0298	No
HI07-PZM005	Shallow	4-14	Benzene	11/28/2001	25		5	Yes
HI07-PZM005	Shallow	4-14	Benzene	7/1/2004	16		5	Yes
HI07-PZM005	Shallow	4-14	Benzo(a)pyrene	11/28/2001	10	U	0.2	No
HI07-PZM005	Shallow	4-14	Benzo(a)pyrene	7/1/2004	10	U	0.2	No

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HI07-PZM005	Shallow	4-14	Benzo(b)fluoranthene	11/28/2001	10	U	0.25	No
HI07-PZM005	Shallow	4-14	Benzo(b)fluoranthene	7/1/2004	10	U	0.25	No
HI07-PZM005	Shallow	4-14	Benzo(g,h,i)perylene	11/28/2001	10	U		No
HI07-PZM005	Shallow	4-14	Benzo(g,h,i)perylene	7/1/2004	10	U		No
HI07-PZM005	Shallow	4-14	Benzo(k)fluoranthene	11/28/2001	10	U	2.5	No
HI07-PZM005	Shallow	4-14	Benzo(k)fluoranthene	7/1/2004	10	U	2.5	No
HI07-PZM005	Shallow	4-14	Beryllium	11/28/2001	2.9	B	4	No
HI07-PZM005	Shallow	4-14	Beryllium	7/1/2004	1	U	4	No
HI07-PZM005	Shallow	4-14	Beryllium, dissolved	7/1/2004	1	U	4	No
HI07-PZM005	Shallow	4-14	Bicarbonate	12/19/2000	10,000	U		No
HI07-PZM005	Shallow	4-14	bis(2-Chloroethoxy)methane	11/28/2001	10	U	59	No
HI07-PZM005	Shallow	4-14	bis(2-Chloroethoxy)methane	7/1/2004	10	U	59	No
HI07-PZM005	Shallow	4-14	bis(2-Chloroethyl)ether	11/28/2001	10	U	0.014	No
HI07-PZM005	Shallow	4-14	bis(2-Chloroethyl)ether	7/1/2004	10	U	0.014	No
HI07-PZM005	Shallow	4-14	bis(2-Ethylhexyl)phthalate	11/28/2001	10	U	6	No
HI07-PZM005	Shallow	4-14	bis(2-Ethylhexyl)phthalate	7/1/2004	10	U	6	No
HI07-PZM005	Shallow	4-14	Bromoform	11/28/2001	1	U	0.13	No
HI07-PZM005	Shallow	4-14	Bromoform	7/1/2004	1	U	0.13	No
HI07-PZM005	Shallow	4-14	Butylbenzylphthalate	11/28/2001	10	U		No
HI07-PZM005	Shallow	4-14	Butylbenzylphthalate	7/1/2004	10	U		No
HI07-PZM005	Shallow	4-14	Cadmium	11/28/2001	0.63	U	5	No
HI07-PZM005	Shallow	4-14	Cadmium	7/1/2004	1	U	5	No
HI07-PZM005	Shallow	4-14	Cadmium, dissolved	7/1/2004	1	U	5	No
HI07-PZM005	Shallow	4-14	Calcium	12/19/2000	210,000			No
HI07-PZM005	Shallow	4-14	Carbon disulfide	11/28/2001	1	U	810	No
HI07-PZM005	Shallow	4-14	Carbon disulfide	7/1/2004	1	U	810	No
HI07-PZM005	Shallow	4-14	Carbon tetrachloride	11/28/2001	1	U	5	No
HI07-PZM005	Shallow	4-14	Carbon tetrachloride	7/1/2004	1	U	5	No
HI07-PZM005	Shallow	4-14	Chloride	10/1/2000	68,000			No
HI07-PZM005	Shallow	4-14	Chloride	12/19/2000	68,000			No
HI07-PZM005	Shallow	4-14	Chlorobenzene	11/28/2001	1	U	100	No
HI07-PZM005	Shallow	4-14	Chlorobenzene	7/1/2004	1	UL	100	No
HI07-PZM005	Shallow	4-14	Chloroethane	11/28/2001	2	U	21,000	No
HI07-PZM005	Shallow	4-14	Chloroethane	7/1/2004	1	U	21,000	No
HI07-PZM005	Shallow	4-14	Chloroform	11/28/2001	1	U	0.22	No
HI07-PZM005	Shallow	4-14	Chloroform	7/1/2004	1	U	0.22	No
HI07-PZM005	Shallow	4-14	Chromium	11/28/2001	5.3		100	No
HI07-PZM005	Shallow	4-14	Chromium	7/1/2004	13	U	100	No
HI07-PZM005	Shallow	4-14	Chromium, dissolved	7/1/2004	12	U	100	No
HI07-PZM005	Shallow	4-14	Chrysene	11/28/2001	10	U	25	No
HI07-PZM005	Shallow	4-14	Chrysene	7/1/2004	10	U	25	No
HI07-PZM005	Shallow	4-14	cis-1,3-Dichloropropene	11/28/2001	1	U		No
HI07-PZM005	Shallow	4-14	cis-1,3-Dichloropropene	7/1/2004	1	U		No
HI07-PZM005	Shallow	4-14	Cobalt	11/28/2001	0.86	U	6	No
HI07-PZM005	Shallow	4-14	Cobalt	7/1/2004	0.7	J	6	No
HI07-PZM005	Shallow	4-14	Cobalt, dissolved	7/1/2004	0.7	J	6	No
HI07-PZM005	Shallow	4-14	Copper	11/28/2001	7.5	B	1,300	No
HI07-PZM005	Shallow	4-14	Copper	7/1/2004	2	J	1,300	No
HI07-PZM005	Shallow	4-14	Copper, dissolved	7/1/2004	2	U	1,300	No
HI07-PZM005	Shallow	4-14	Cyanide, amenable	11/28/2001	450	J	200	Yes
HI07-PZM005	Shallow	4-14	Cyanide, available	7/1/2004	2	U	200	No



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HI07-PZM005	Shallow	4-14	Cyanide, total	7/1/2004	20		200	No
HI07-PZM005	Shallow	4-14	Dibenz(a,h)anthracene	11/28/2001	10	U	0.025	No
HI07-PZM005	Shallow	4-14	Dibenz[a,h]anthracene	7/1/2004	10	U	0.025	No
HI07-PZM005	Shallow	4-14	Dibenzofuran	11/28/2001	0.91	J		No
HI07-PZM005	Shallow	4-14	Dibenzofuran	7/1/2004	10	U		No
HI07-PZM005	Shallow	4-14	Diethylphthalate	11/28/2001	10	U	15,000	No
HI07-PZM005	Shallow	4-14	Diethylphthalate	7/1/2004	10	U	15,000	No
HI07-PZM005	Shallow	4-14	Dimethylphthalate	11/28/2001	10	U		No
HI07-PZM005	Shallow	4-14	Dimethylphthalate	7/1/2004	10	U		No
HI07-PZM005	Shallow	4-14	Di-n-butylphthalate	11/28/2001	10	U	900	No
HI07-PZM005	Shallow	4-14	Di-n-butylphthalate	7/1/2004	10	U	900	No
HI07-PZM005	Shallow	4-14	Di-n-octylphthalate	11/28/2001	10	U	200	No
HI07-PZM005	Shallow	4-14	Di-n-octylphthalate	7/1/2004	10	U	200	No
HI07-PZM005	Shallow	4-14	Ethylbenzene	11/28/2001	0.43	J	700	No
HI07-PZM005	Shallow	4-14	Ethylbenzene	7/1/2004	1	U	700	No
HI07-PZM005	Shallow	4-14	Fluoranthene	11/28/2001	1	J	800	No
HI07-PZM005	Shallow	4-14	Fluoranthene	7/1/2004	10	U	800	No
HI07-PZM005	Shallow	4-14	Fluorene	11/28/2001	1.2	J	290	No
HI07-PZM005	Shallow	4-14	Fluorene	7/1/2004	10	U	290	No
HI07-PZM005	Shallow	4-14	Hexachlorobenzene	11/28/2001	10	U	1	No
HI07-PZM005	Shallow	4-14	Hexachlorobenzene	7/1/2004	10	U	1	No
HI07-PZM005	Shallow	4-14	Hexachlorobutadiene	11/28/2001	10	U	0.14	No
HI07-PZM005	Shallow	4-14	Hexachlorobutadiene	7/1/2004	10	U	0.14	No
HI07-PZM005	Shallow	4-14	Hexachlorocyclopentadiene	11/28/2001	50	U	50	No
HI07-PZM005	Shallow	4-14	Hexachlorocyclopentadiene	7/1/2004	10	U	50	No
HI07-PZM005	Shallow	4-14	Hexachloroethane	11/28/2001	10	U	0.33	No
HI07-PZM005	Shallow	4-14	Hexachloroethane	7/1/2004	10	U	0.33	No
HI07-PZM005	Shallow	4-14	Indeno(1,2,3-cd)pyrene	11/28/2001	10	U	0.25	No
HI07-PZM005	Shallow	4-14	Indeno(1,2,3-cd)pyrene	7/1/2004	10	U	0.25	No
HI07-PZM005	Shallow	4-14	Iron	10/1/2000	300		14,000	No
HI07-PZM005	Shallow	4-14	Iron	12/19/2000	300		14,000	No
HI07-PZM005	Shallow	4-14	Iron	7/1/2004	100	U	14,000	No
HI07-PZM005	Shallow	4-14	Isophorone	11/28/2001	10	U		No
HI07-PZM005	Shallow	4-14	Isophorone	7/1/2004	10	U		No
HI07-PZM005	Shallow	4-14	Lead	11/28/2001	4.8		15	No
HI07-PZM005	Shallow	4-14	Lead	7/1/2004	1	U	15	No
HI07-PZM005	Shallow	4-14	Lead, dissolved	7/1/2004	1	U	15	No
HI07-PZM005	Shallow	4-14	Magnesium	12/19/2000	100			No
HI07-PZM005	Shallow	4-14	Manganese	12/19/2000	30		430	No
HI07-PZM005	Shallow	4-14	Mercury	11/28/2001	0.054	U	2	No
HI07-PZM005	Shallow	4-14	Mercury	7/1/2004	0.2	U	2	No
HI07-PZM005	Shallow	4-14	Mercury, dissolved	7/1/2004	0.2	U	2	No
HI07-PZM005	Shallow	4-14	Methylene chloride	11/28/2001	2	U	5	No
HI07-PZM005	Shallow	4-14	Methylene chloride	7/1/2004	2.1	U	5	No
HI07-PZM005	Shallow	4-14	Naphthalene	11/28/2001	40		0.17	Yes
HI07-PZM005	Shallow	4-14	Naphthalene	7/1/2004	16		0.17	Yes
HI07-PZM005	Shallow	4-14	Nickel	11/28/2001	5.1	J	390	No
HI07-PZM005	Shallow	4-14	Nickel	7/1/2004	13		390	No
HI07-PZM005	Shallow	4-14	Nickel, dissolved	7/1/2004	13		390	No
HI07-PZM005	Shallow	4-14	Nitrobenzene	11/28/2001	10	U	0.14	No
HI07-PZM005	Shallow	4-14	Nitrobenzene	7/1/2004	10	U	0.14	No

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HI07-PZM005	Shallow	4-14	Pentachloroethane	11/28/2001	50	U		No
HI07-PZM005	Shallow	4-14	Pentachloroethane	7/1/2004	50	U		No
HI07-PZM005	Shallow	4-14	Pentachlorophenol	11/28/2001	50	U	1	No
HI07-PZM005	Shallow	4-14	Pentachlorophenol	7/1/2004	50	U	1	No
HI07-PZM005	Shallow	4-14	Phenanthrene	11/28/2001	3	J		No
HI07-PZM005	Shallow	4-14	Phenanthrene	7/1/2004	10	U		No
HI07-PZM005	Shallow	4-14	Phenol	11/28/2001	4.8	J	5,800	No
HI07-PZM005	Shallow	4-14	Phenol	7/1/2004	10	U	5,800	No
HI07-PZM005	Shallow	4-14	Potassium	12/19/2000	38,000			No
HI07-PZM005	Shallow	4-14	Pyrene	11/28/2001	10	U	120	No
HI07-PZM005	Shallow	4-14	Pyrene	7/1/2004	10	U	120	No
HI07-PZM005	Shallow	4-14	Pyridine	11/28/2001	4.1	J		No
HI07-PZM005	Shallow	4-14	Pyridine	7/1/2004	20	U		No
HI07-PZM005	Shallow	4-14	Selenium	11/28/2001	3.2	U	50	No
HI07-PZM005	Shallow	4-14	Selenium	7/1/2004	5	J	50	No
HI07-PZM005	Shallow	4-14	Selenium, dissolved	7/1/2004	5	U	50	No
HI07-PZM005	Shallow	4-14	Silver	11/28/2001	0.75	U	94	No
HI07-PZM005	Shallow	4-14	Silver	7/1/2004	5	U	94	No
HI07-PZM005	Shallow	4-14	Silver, dissolved	7/1/2004	5	U	94	No
HI07-PZM005	Shallow	4-14	Sodium	12/19/2000	42,000			No
HI07-PZM005	Shallow	4-14	Sulfate	10/1/2000	110,000			No
HI07-PZM005	Shallow	4-14	Sulfate	12/19/2000	110,000			No
HI07-PZM005	Shallow	4-14	Sulfide	11/28/2001	1,000	U		No
HI07-PZM005	Shallow	4-14	Sulfide	7/1/2004	1,000	UL		No
HI07-PZM005	Shallow	4-14	Tetrachloroethene	11/28/2001	1	U	5	No
HI07-PZM005	Shallow	4-14	Tetrachloroethene	7/1/2004	1	UL	5	No
HI07-PZM005	Shallow	4-14	Thallium	11/28/2001	5.7	U	2	No
HI07-PZM005	Shallow	4-14	Thallium	7/1/2004	2.6		2	Yes
HI07-PZM005	Shallow	4-14	Thallium, dissolved	7/1/2004	1.6		2	No
HI07-PZM005	Shallow	4-14	Tin	11/28/2001	28.8	U		No
HI07-PZM005	Shallow	4-14	Tin	7/1/2004	730			No
HI07-PZM005	Shallow	4-14	Tin, dissolved	7/1/2004	770			No
HI07-PZM005	Shallow	4-14	Toluene	11/28/2001	7.9		1,000	No
HI07-PZM005	Shallow	4-14	Toluene	7/1/2004	4.6		1,000	No
HI07-PZM005	Shallow	4-14	Total dissolved solids (TDS)	12/19/2000	790,000			No
HI07-PZM005	Shallow	4-14	trans-1,2-Dichloroethene	11/28/2001	1	U	100	No
HI07-PZM005	Shallow	4-14	trans-1,2-Dichloroethene	7/1/2004	1	U	100	No
HI07-PZM005	Shallow	4-14	trans-1,3-Dichloropropene	11/28/2001	1	U		No
HI07-PZM005	Shallow	4-14	trans-1,3-Dichloropropene	7/1/2004	1	U		No
HI07-PZM005	Shallow	4-14	Trichloroethene	11/28/2001	1	U	5	No
HI07-PZM005	Shallow	4-14	Trichloroethene	7/1/2004	1	UL	5	No
HI07-PZM005	Shallow	4-14	Vanadium	11/28/2001	36.7	J	86	No
HI07-PZM005	Shallow	4-14	Vanadium	7/1/2004	20		86	No
HI07-PZM005	Shallow	4-14	Vanadium, dissolved	7/1/2004	29		86	No
HI07-PZM005	Shallow	4-14	Vinyl chloride	11/28/2001	2	U	2	No
HI07-PZM005	Shallow	4-14	Vinyl chloride	7/1/2004	1	U	2	No
HI07-PZM005	Shallow	4-14	Xylene, total	11/28/2001	9.4		10,000	No
HI07-PZM005	Shallow	4-14	Xylenes	7/1/2004	5.6		10,000	No
HI07-PZM005	Shallow	4-14	Zinc	11/28/2001	14.2	J	6,000	No
HI07-PZM005	Shallow	4-14	Zinc	7/1/2004	10	U	6,000	No
HI07-PZM005	Shallow	4-14	Zinc, dissolved	7/1/2004	10	U	6,000	No

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HI07-PZM032	Intermediate	31-42	1,1,1,2-Tetrachloroethane	11/28/2001	1	U		No
HI07-PZM032	Intermediate	31-42	1,1,1-Trichloroethane	11/28/2001	1	U	200	No
HI07-PZM032	Intermediate	31-42	1,1,2,2-Tetrachloroethane	11/28/2001	1	U	0.076	No
HI07-PZM032	Intermediate	31-42	1,1,2-Trichloroethane	11/28/2001	1	U	5	No
HI07-PZM032	Intermediate	31-42	1,1-Dichloroethane	11/28/2001	1	U	2.7	No
HI07-PZM032	Intermediate	31-42	1,1-Dichloroethene	11/28/2001	1	U	7	No
HI07-PZM032	Intermediate	31-42	1,2,4-Trichlorobenzene	11/28/2001	10	U	70	No
HI07-PZM032	Intermediate	31-42	1,2-Dichlorobenzene	11/28/2001	10	U	600	No
HI07-PZM032	Intermediate	31-42	1,2-Dichloroethane	11/28/2001	1	U	5	No
HI07-PZM032	Intermediate	31-42	1,2-Dichloropropane	11/28/2001	1	U	5	No
HI07-PZM032	Intermediate	31-42	1,3-Dichlorobenzene	11/28/2001	10	U		No
HI07-PZM032	Intermediate	31-42	1,4-Dichlorobenzene	11/28/2001	10	U	75	No
HI07-PZM032	Intermediate	31-42	2,2'-Oxybis(1-chloropropane)	11/28/2001	20	U	0.36	No
HI07-PZM032	Intermediate	31-42	2,4,5-Trichlorophenol	11/28/2001	10	U	1,200	No
HI07-PZM032	Intermediate	31-42	2,4,6-Trichlorophenol	11/28/2001	10	U	4	No
HI07-PZM032	Intermediate	31-42	2,4-Dichlorophenol	11/28/2001	10	U	46	No
HI07-PZM032	Intermediate	31-42	2,4-Dimethylphenol	11/28/2001	240		360	No
HI07-PZM032	Intermediate	31-42	2,4-Dinitrophenol	11/28/2001	50	U	39	No
HI07-PZM032	Intermediate	31-42	2,4-Dinitrotoluene	11/28/2001	10	U	0.24	No
HI07-PZM032	Intermediate	31-42	2,6-Dinitrotoluene	11/28/2001	10	U	0.048	No
HI07-PZM032	Intermediate	31-42	2-Butanone (MEK)	11/28/2001	1.2	J	5,600	No
HI07-PZM032	Intermediate	31-42	2-Chloronaphthalene	11/28/2001	10	U	750	No
HI07-PZM032	Intermediate	31-42	2-Chlorophenol	11/28/2001	10	U	91	No
HI07-PZM032	Intermediate	31-42	2-Hexanone	11/28/2001	5	U	38	No
HI07-PZM032	Intermediate	31-42	2-Methylnaphthalene	11/28/2001	20		36	No
HI07-PZM032	Intermediate	31-42	2-Methylphenol	11/28/2001	5.1	J	930	No
HI07-PZM032	Intermediate	31-42	2-Nitrophenol	11/28/2001	10	U	190	No
HI07-PZM032	Intermediate	31-42	3,3'-Dichlorobenzidine	11/28/2001	50	U	0.12	No
HI07-PZM032	Intermediate	31-42	3,3'-Dimethylbenzidine	11/28/2001	50	U		No
HI07-PZM032	Intermediate	31-42	4,6-Dinitro-2-methylphenol	11/28/2001	50	U		No
HI07-PZM032	Intermediate	31-42	4-Bromophenyl-phenylether	11/28/2001	10	U		No
HI07-PZM032	Intermediate	31-42	4-Chloro-3-methylphenol	11/28/2001	10	U		No
HI07-PZM032	Intermediate	31-42	4-Chlorophenyl-phenylether	11/28/2001	10	U		No
HI07-PZM032	Intermediate	31-42	4-Methyl-2-pentanone (MIBK)	11/28/2001	5	U	1,200	No
HI07-PZM032	Intermediate	31-42	4-Methylphenol	11/28/2001	100		930	No
HI07-PZM032	Intermediate	31-42	4-Nitrophenol	11/28/2001	50	U		No
HI07-PZM032	Intermediate	31-42	Acenaphthene	11/28/2001	2.4	J	530	No
HI07-PZM032	Intermediate	31-42	Acenaphthylene	11/28/2001	2.9	J	530	No
HI07-PZM032	Intermediate	31-42	Acetone	11/28/2001	5.8	J	14,000	No
HI07-PZM032	Intermediate	31-42	Anthracene	11/28/2001	10	U	1,800	No
HI07-PZM032	Intermediate	31-42	Antimony	11/28/2001	4.1	U	6	No
HI07-PZM032	Intermediate	31-42	Aroclor-1016	11/28/2001	1	U		No
HI07-PZM032	Intermediate	31-42	Aroclor-1221	11/28/2001	1	U		No
HI07-PZM032	Intermediate	31-42	Aroclor-1232	11/28/2001	1	U		No
HI07-PZM032	Intermediate	31-42	Aroclor-1242	11/28/2001	1	U		No
HI07-PZM032	Intermediate	31-42	Aroclor-1248	11/28/2001	1	U		No
HI07-PZM032	Intermediate	31-42	Aroclor-1254	11/28/2001	1	U		No
HI07-PZM032	Intermediate	31-42	Aroclor-1260	11/28/2001	1	U		No
HI07-PZM032	Intermediate	31-42	Arsenic	11/28/2001	2	U	10	No
HI07-PZM032	Intermediate	31-42	Barium	11/28/2001	102	J	2,000	No
HI07-PZM032	Intermediate	31-42	Benz(a)anthracene	11/28/2001	10	U	0.0298	No

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HI07-PZM032	Intermediate	31-42	Benzene	11/28/2001	71		5	Yes
HI07-PZM032	Intermediate	31-42	Benzo(a)pyrene	11/28/2001	10	U	0.2	No
HI07-PZM032	Intermediate	31-42	Benzo(b)fluoranthene	11/28/2001	10	U	0.25	No
HI07-PZM032	Intermediate	31-42	Benzo(g,h,i)perylene	11/28/2001	10	U		No
HI07-PZM032	Intermediate	31-42	Benzo(k)fluoranthene	11/28/2001	10	U	2.5	No
HI07-PZM032	Intermediate	31-42	Beryllium	11/28/2001	2.6	B	4	No
HI07-PZM032	Intermediate	31-42	Bicarbonate	11/28/2001	5,000	U		No
HI07-PZM032	Intermediate	31-42	bis(2-Chloroethoxy)methane	11/28/2001	10	U	59	No
HI07-PZM032	Intermediate	31-42	bis(2-Chloroethyl)ether	11/28/2001	10	U	0.014	No
HI07-PZM032	Intermediate	31-42	bis(2-Ethylhexyl)phthalate	11/28/2001	10	U	6	No
HI07-PZM032	Intermediate	31-42	Bromoform	11/28/2001	1	U	0.13	No
HI07-PZM032	Intermediate	31-42	Butylbenzylphthalate	11/28/2001	10	U		No
HI07-PZM032	Intermediate	31-42	Cadmium	11/28/2001	0.63	U	5	No
HI07-PZM032	Intermediate	31-42	Calcium	11/28/2001	159,000			No
HI07-PZM032	Intermediate	31-42	Carbon disulfide	11/28/2001	1	U	810	No
HI07-PZM032	Intermediate	31-42	Carbon tetrachloride	11/28/2001	1	U	5	No
HI07-PZM032	Intermediate	31-42	Chloride	11/28/2001	225,000			No
HI07-PZM032	Intermediate	31-42	Chlorobenzene	11/28/2001	1	U	100	No
HI07-PZM032	Intermediate	31-42	Chloroethane	11/28/2001	2	U	21,000	No
HI07-PZM032	Intermediate	31-42	Chloroform	11/28/2001	1	U	0.22	No
HI07-PZM032	Intermediate	31-42	Chromium	11/28/2001	1.1	U	100	No
HI07-PZM032	Intermediate	31-42	Chrysene	11/28/2001	10	U	25	No
HI07-PZM032	Intermediate	31-42	cis-1,3-Dichloropropene	11/28/2001	1	U		No
HI07-PZM032	Intermediate	31-42	Cobalt	11/28/2001	0.86	U	6	No
HI07-PZM032	Intermediate	31-42	Copper	11/28/2001	6.2	B	1,300	No
HI07-PZM032	Intermediate	31-42	Cyanide, amenable	11/28/2001	1,500	J	200	Yes
HI07-PZM032	Intermediate	31-42	Dibenz(a,h)anthracene	11/28/2001	10	U	0.025	No
HI07-PZM032	Intermediate	31-42	Dibenzofuran	11/28/2001	2.7	J		No
HI07-PZM032	Intermediate	31-42	Diethylphthalate	11/28/2001	10	U	15,000	No
HI07-PZM032	Intermediate	31-42	Dimethylphthalate	11/28/2001	10	U		No
HI07-PZM032	Intermediate	31-42	Di-n-butylphthalate	11/28/2001	10	U	900	No
HI07-PZM032	Intermediate	31-42	Di-n-octylphthalate	11/28/2001	10	U	200	No
HI07-PZM032	Intermediate	31-42	Ethylbenzene	11/28/2001	1		700	No
HI07-PZM032	Intermediate	31-42	Fluoranthene	11/28/2001	0.82	J	800	No
HI07-PZM032	Intermediate	31-42	Fluorene	11/28/2001	4.5	J	290	No
HI07-PZM032	Intermediate	31-42	Hexachlorobenzene	11/28/2001	10	U	1	No
HI07-PZM032	Intermediate	31-42	Hexachlorobutadiene	11/28/2001	10	U	0.14	No
HI07-PZM032	Intermediate	31-42	Hexachlorocyclopentadiene	11/28/2001	50	U	50	No
HI07-PZM032	Intermediate	31-42	Hexachloroethane	11/28/2001	10	U	0.33	No
HI07-PZM032	Intermediate	31-42	Indeno(1,2,3-cd)pyrene	11/28/2001	10	U	0.25	No
HI07-PZM032	Intermediate	31-42	Iron	11/28/2001	829		14,000	No
HI07-PZM032	Intermediate	31-42	Isophorone	11/28/2001	10	U		No
HI07-PZM032	Intermediate	31-42	Lead	11/28/2001	1.8	U	15	No
HI07-PZM032	Intermediate	31-42	Magnesium	11/28/2001	2,410	J		No
HI07-PZM032	Intermediate	31-42	Manganese	11/28/2001	105		430	No
HI07-PZM032	Intermediate	31-42	Mercury	11/28/2001	0.16	B	2	No
HI07-PZM032	Intermediate	31-42	Methylene chloride	11/28/2001	2	U	5	No
HI07-PZM032	Intermediate	31-42	Naphthalene	11/28/2001	240		0.17	Yes
HI07-PZM032	Intermediate	31-42	Nickel	11/28/2001	10.5	J	390	No
HI07-PZM032	Intermediate	31-42	Nitrobenzene	11/28/2001	10	U	0.14	No
HI07-PZM032	Intermediate	31-42	Pentachloroethane	11/28/2001	50	U		No

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HI07-PZM032	Intermediate	31-42	Pentachlorophenol	11/28/2001	50	U	1	No
HI07-PZM032	Intermediate	31-42	Phenanthrene	11/28/2001	5.7	J		No
HI07-PZM032	Intermediate	31-42	Phenol	11/28/2001	30		5,800	No
HI07-PZM032	Intermediate	31-42	Potassium	11/28/2001	48,100			No
HI07-PZM032	Intermediate	31-42	Pyrene	11/28/2001	10	U	120	No
HI07-PZM032	Intermediate	31-42	Pyridine	11/28/2001	16	J		No
HI07-PZM032	Intermediate	31-42	Selenium	11/28/2001	3.2	U	50	No
HI07-PZM032	Intermediate	31-42	Silver	11/28/2001	0.75	U	94	No
HI07-PZM032	Intermediate	31-42	Sodium	11/28/2001	131,000			No
HI07-PZM032	Intermediate	31-42	Sulfate	11/28/2001	37,400			No
HI07-PZM032	Intermediate	31-42	Sulfide	11/28/2001	1,000	U		No
HI07-PZM032	Intermediate	31-42	Tetrachloroethene	11/28/2001	1	U	5	No
HI07-PZM032	Intermediate	31-42	Thallium	11/28/2001	5.7	U	2	No
HI07-PZM032	Intermediate	31-42	Tin	11/28/2001	28.8	U		No
HI07-PZM032	Intermediate	31-42	Toluene	11/28/2001	22		1,000	No
HI07-PZM032	Intermediate	31-42	trans-1,2-Dichloroethene	11/28/2001	1	U	100	No
HI07-PZM032	Intermediate	31-42	trans-1,3-Dichloropropene	11/28/2001	1	U		No
HI07-PZM032	Intermediate	31-42	Trichloroethene	11/28/2001	1	U	5	No
HI07-PZM032	Intermediate	31-42	Vanadium	11/28/2001	60.2		86	No
HI07-PZM032	Intermediate	31-42	Vinyl chloride	11/28/2001	2	U	2	No
HI07-PZM032	Intermediate	31-42	Xylene, total	11/28/2001	27		10,000	No
HI07-PZM032	Intermediate	31-42	Zinc	11/28/2001	1.5	U	6,000	No
HI07-PZM094	Lower	TD > 100*	1,1,1,2-Tetrachloroethane	7/1/2004	1	U		No
HI07-PZM094	Lower	TD > 100*	1,1,1-Trichloroethane	10/1/2001	1	U	200	No
HI07-PZM094	Lower	TD > 100*	1,1,1-Trichloroethane	7/1/2004	1	U	200	No
HI07-PZM094	Lower	TD > 100*	1,1,2,2-Tetrachloroethane	7/1/2004	1	U	0.076	No
HI07-PZM094	Lower	TD > 100*	1,1,2-Trichloroethane	7/1/2004	1	U	5	No
HI07-PZM094	Lower	TD > 100*	1,1-Dichloroethane	10/1/2001	1	U	2.7	No
HI07-PZM094	Lower	TD > 100*	1,1-Dichloroethane	7/1/2004	1	U	2.7	No
HI07-PZM094	Lower	TD > 100*	1,1-Dichloroethene	10/1/2001	1	U	7	No
HI07-PZM094	Lower	TD > 100*	1,1-Dichloroethene	7/1/2004	1	U	7	No
HI07-PZM094	Lower	TD > 100*	1,2,4-Trichlorobenzene	7/1/2004	10	U	70	No
HI07-PZM094	Lower	TD > 100*	1,2-Dichlorobenzene	7/1/2004	10	U	600	No
HI07-PZM094	Lower	TD > 100*	1,2-Dichloroethane	10/1/2001	1	U	5	No
HI07-PZM094	Lower	TD > 100*	1,2-Dichloroethane	7/1/2004	1	U	5	No
HI07-PZM094	Lower	TD > 100*	1,2-Dichloropropane	7/1/2004	1	U	5	No
HI07-PZM094	Lower	TD > 100*	1,3-Dichlorobenzene	7/1/2004	10	U		No
HI07-PZM094	Lower	TD > 100*	1,4-Dichlorobenzene	7/1/2004	10	U	75	No
HI07-PZM094	Lower	TD > 100*	2,4,5-Trichlorophenol	7/1/2004	10	U	1,200	No
HI07-PZM094	Lower	TD > 100*	2,4,6-Trichlorophenol	7/1/2004	10	U	4	No
HI07-PZM094	Lower	TD > 100*	2,4-Dichlorophenol	7/1/2004	10	U	46	No
HI07-PZM094	Lower	TD > 100*	2,4-Dimethylphenol	7/1/2004	10	U	360	No
HI07-PZM094	Lower	TD > 100*	2,4-Dinitrophenol	7/1/2004	50	U	39	No
HI07-PZM094	Lower	TD > 100*	2,4-Dinitrotoluene	7/1/2004	10	U	0.24	No
HI07-PZM094	Lower	TD > 100*	2,6-Dinitrotoluene	7/1/2004	10	U	0.048	No
HI07-PZM094	Lower	TD > 100*	2-Butanone (MEK)	7/1/2004	5	U	5,600	No
HI07-PZM094	Lower	TD > 100*	2-Chloronaphthalene	7/1/2004	10	U	750	No
HI07-PZM094	Lower	TD > 100*	2-Chlorophenol	7/1/2004	10	U	91	No
HI07-PZM094	Lower	TD > 100*	2-Hexanone	7/1/2004	5	U	38	No
HI07-PZM094	Lower	TD > 100*	2-Methylnaphthalene	7/1/2004	10	U	36	No
HI07-PZM094	Lower	TD > 100*	2-Methylphenol	7/1/2004	10	U	930	No

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HI07-PZM094	Lower	TD > 100*	2-Nitrophenol	7/1/2004	10	U	190	No
HI07-PZM094	Lower	TD > 100*	3-&4-Methylphenol	7/1/2004	10	U	930	No
HI07-PZM094	Lower	TD > 100*	3,3'-Dichlorobenzidine	7/1/2004	20	U	0.12	No
HI07-PZM094	Lower	TD > 100*	3,3'-Dimethylbenzidine	7/1/2004	50	U		No
HI07-PZM094	Lower	TD > 100*	4,6-Dinitro-2-methylphenol	7/1/2004	50	U		No
HI07-PZM094	Lower	TD > 100*	4-Bromophenyl-phenylether	7/1/2004	10	U		No
HI07-PZM094	Lower	TD > 100*	4-Chloro-3-methylphenol	7/1/2004	10	U		No
HI07-PZM094	Lower	TD > 100*	4-Chlorophenyl-phenylether	7/1/2004	10	U		No
HI07-PZM094	Lower	TD > 100*	4-Methyl-2-pentanone (MIBK)	7/1/2004	5	U	1,200	No
HI07-PZM094	Lower	TD > 100*	4-Nitrophenol	7/1/2004	50	U		No
HI07-PZM094	Lower	TD > 100*	Acenaphthene	7/1/2004	10	U	530	No
HI07-PZM094	Lower	TD > 100*	Acenaphthylene	7/1/2004	10	U	530	No
HI07-PZM094	Lower	TD > 100*	Acetone	7/1/2004	3.1	J	14,000	No
HI07-PZM094	Lower	TD > 100*	Anthracene	7/1/2004	10	U	1,800	No
HI07-PZM094	Lower	TD > 100*	Antimony	7/1/2004	2	U	6	No
HI07-PZM094	Lower	TD > 100*	Antimony, dissolved	7/1/2004	2	U	6	No
HI07-PZM094	Lower	TD > 100*	Arsenic	7/1/2004	18		10	Yes
HI07-PZM094	Lower	TD > 100*	Arsenic, dissolved	7/1/2004	17		10	Yes
HI07-PZM094	Lower	TD > 100*	Barium	7/1/2004	91		2,000	No
HI07-PZM094	Lower	TD > 100*	Barium, dissolved	7/1/2004	85		2,000	No
HI07-PZM094	Lower	TD > 100*	Benz(a)anthracene	7/1/2004	10	U	0.0298	No
HI07-PZM094	Lower	TD > 100*	Benzene	10/1/2001	1	U	5	No
HI07-PZM094	Lower	TD > 100*	Benzene	7/1/2004	1	U	5	No
HI07-PZM094	Lower	TD > 100*	Benzo(a)pyrene	7/1/2004	10	U	0.2	No
HI07-PZM094	Lower	TD > 100*	Benzo(b)fluoranthene	7/1/2004	10	U	0.25	No
HI07-PZM094	Lower	TD > 100*	Benzo(g,h,i)perylene	7/1/2004	10	U		No
HI07-PZM094	Lower	TD > 100*	Benzo(k)fluoranthene	7/1/2004	10	U	2.5	No
HI07-PZM094	Lower	TD > 100*	Beryllium	7/1/2004	1	U	4	No
HI07-PZM094	Lower	TD > 100*	Beryllium, dissolved	7/1/2004	1	U	4	No
HI07-PZM094	Lower	TD > 100*	bis(2-Chloroethoxy)methane	7/1/2004	10	U	59	No
HI07-PZM094	Lower	TD > 100*	bis(2-Chloroethyl)ether	7/1/2004	10	U	0.014	No
HI07-PZM094	Lower	TD > 100*	bis(2-Ethylhexyl)phthalate	7/1/2004	10	U	6	No
HI07-PZM094	Lower	TD > 100*	Bromoform	7/1/2004	1	U	0.13	No
HI07-PZM094	Lower	TD > 100*	Butylbenzylphthalate	7/1/2004	10	U		No
HI07-PZM094	Lower	TD > 100*	Cadmium	7/1/2004	1	U	5	No
HI07-PZM094	Lower	TD > 100*	Cadmium, dissolved	7/1/2004	1	U	5	No
HI07-PZM094	Lower	TD > 100*	Carbon disulfide	7/1/2004	1	U	810	No
HI07-PZM094	Lower	TD > 100*	Carbon tetrachloride	10/1/2001	1	U	5	No
HI07-PZM094	Lower	TD > 100*	Carbon tetrachloride	7/1/2004	1	U	5	No
HI07-PZM094	Lower	TD > 100*	Chlorobenzene	10/1/2001	1	U	100	No
HI07-PZM094	Lower	TD > 100*	Chlorobenzene	7/1/2004	1	UL	100	No
HI07-PZM094	Lower	TD > 100*	Chloroethane	7/1/2004	1	U	21,000	No
HI07-PZM094	Lower	TD > 100*	Chloroform	7/1/2004	1	U	0.22	No
HI07-PZM094	Lower	TD > 100*	Chromium	7/1/2004	4.5	U	100	No
HI07-PZM094	Lower	TD > 100*	Chromium, dissolved	7/1/2004	3.5	U	100	No
HI07-PZM094	Lower	TD > 100*	Chrysene	7/1/2004	10	U	25	No
HI07-PZM094	Lower	TD > 100*	cis-1,3-Dichloropropene	7/1/2004	1	U		No
HI07-PZM094	Lower	TD > 100*	Cobalt	7/1/2004	31		6	Yes
HI07-PZM094	Lower	TD > 100*	Cobalt, dissolved	7/1/2004	31		6	Yes
HI07-PZM094	Lower	TD > 100*	Copper	7/1/2004	16		1,300	No
HI07-PZM094	Lower	TD > 100*	Copper, dissolved	7/1/2004	13		1,300	No

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HI07-PZM094	Lower	TD > 100*	Cyanide, available	7/1/2004	2	U	200	No
HI07-PZM094	Lower	TD > 100*	Cyanide, total	7/1/2004	1.8		200	No
HI07-PZM094	Lower	TD > 100*	Dibenz[a,h]anthracene	7/1/2004	10	U	0.025	No
HI07-PZM094	Lower	TD > 100*	Dibenzofuran	7/1/2004	10	U		No
HI07-PZM094	Lower	TD > 100*	Diethylphthalate	7/1/2004	10	U	15,000	No
HI07-PZM094	Lower	TD > 100*	Dimethylphthalate	7/1/2004	10	U		No
HI07-PZM094	Lower	TD > 100*	Di-n-butylphthalate	7/1/2004	10	U	900	No
HI07-PZM094	Lower	TD > 100*	Di-n-octylphthalate	7/1/2004	10	U	200	No
HI07-PZM094	Lower	TD > 100*	Ethylbenzene	10/1/2001	1	U	700	No
HI07-PZM094	Lower	TD > 100*	Ethylbenzene	7/1/2004	1	U	700	No
HI07-PZM094	Lower	TD > 100*	Fluoranthene	7/1/2004	10	U	800	No
HI07-PZM094	Lower	TD > 100*	Fluorene	7/1/2004	10	U	290	No
HI07-PZM094	Lower	TD > 100*	Hexachlorobenzene	7/1/2004	10	U	1	No
HI07-PZM094	Lower	TD > 100*	Hexachlorobutadiene	7/1/2004	10	U	0.14	No
HI07-PZM094	Lower	TD > 100*	Hexachlorocyclopentadiene	7/1/2004	10	U	50	No
HI07-PZM094	Lower	TD > 100*	Hexachloroethane	7/1/2004	10	U	0.33	No
HI07-PZM094	Lower	TD > 100*	Indeno(1,2,3-cd)pyrene	7/1/2004	10	U	0.25	No
HI07-PZM094	Lower	TD > 100*	Iron	7/1/2004	42,000		14,000	Yes
HI07-PZM094	Lower	TD > 100*	Isophorone	7/1/2004	10	U		No
HI07-PZM094	Lower	TD > 100*	Lead	7/1/2004	1	J	15	No
HI07-PZM094	Lower	TD > 100*	Lead, dissolved	7/1/2004	1	U	15	No
HI07-PZM094	Lower	TD > 100*	Mercury	7/1/2004	0.2	U	2	No
HI07-PZM094	Lower	TD > 100*	Mercury, dissolved	7/1/2004	0.2	U	2	No
HI07-PZM094	Lower	TD > 100*	Methylene chloride	10/1/2001	1	U	5	No
HI07-PZM094	Lower	TD > 100*	Methylene chloride	7/1/2004	2	U	5	No
HI07-PZM094	Lower	TD > 100*	Naphthalene	10/1/2002	1	U	0.17	No
HI07-PZM094	Lower	TD > 100*	Naphthalene	7/1/2004	10	U	0.17	No
HI07-PZM094	Lower	TD > 100*	Nickel	7/1/2004	32		390	No
HI07-PZM094	Lower	TD > 100*	Nickel, dissolved	7/1/2004	32		390	No
HI07-PZM094	Lower	TD > 100*	Nitrobenzene	7/1/2004	10	U	0.14	No
HI07-PZM094	Lower	TD > 100*	Pentachloroethane	7/1/2004	50	U		No
HI07-PZM094	Lower	TD > 100*	Pentachlorophenol	7/1/2004	50	U	1	No
HI07-PZM094	Lower	TD > 100*	Phenanthrene	7/1/2004	10	U		No
HI07-PZM094	Lower	TD > 100*	Phenol	7/1/2004	10	U	5,800	No
HI07-PZM094	Lower	TD > 100*	Pyrene	7/1/2004	10	U	120	No
HI07-PZM094	Lower	TD > 100*	Pyridine	7/1/2004	20	U		No
HI07-PZM094	Lower	TD > 100*	Selenium	7/1/2004	32		50	No
HI07-PZM094	Lower	TD > 100*	Selenium, dissolved	7/1/2004	34		50	No
HI07-PZM094	Lower	TD > 100*	Silver	7/1/2004	5	U	94	No
HI07-PZM094	Lower	TD > 100*	Silver, dissolved	7/1/2004	5	U	94	No
HI07-PZM094	Lower	TD > 100*	Sulfide	7/1/2004	1,000	U		No
HI07-PZM094	Lower	TD > 100*	Tetrachloroethene	10/1/2001	1	U	5	No
HI07-PZM094	Lower	TD > 100*	Tetrachloroethene	7/1/2004	1	UL	5	No
HI07-PZM094	Lower	TD > 100*	Thallium	7/1/2004	1.1		2	No
HI07-PZM094	Lower	TD > 100*	Thallium, dissolved	7/1/2004	0.8	J	2	No
HI07-PZM094	Lower	TD > 100*	Tin	7/1/2004	540			No
HI07-PZM094	Lower	TD > 100*	Tin, dissolved	7/1/2004	590			No
HI07-PZM094	Lower	TD > 100*	Toluene	10/1/2001	6.9		1,000	No
HI07-PZM094	Lower	TD > 100*	Toluene	7/1/2004	0.8	J	1,000	No
HI07-PZM094	Lower	TD > 100*	trans-1,2-Dichloroethene	10/1/2001	1	U	100	No
HI07-PZM094	Lower	TD > 100*	trans-1,2-Dichloroethene	7/1/2004	1	U	100	No

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HI07-PZM094	Lower	TD > 100*	trans-1,3-Dichloropropene	7/1/2004	1	U		No
HI07-PZM094	Lower	TD > 100*	Trichloroethene	10/1/2001	1	U	5	No
HI07-PZM094	Lower	TD > 100*	Trichloroethene	7/1/2004	1	UL	5	No
HI07-PZM094	Lower	TD > 100*	Vanadium	7/1/2004	5	U	86	No
HI07-PZM094	Lower	TD > 100*	Vanadium, dissolved	7/1/2004	5	U	86	No
HI07-PZM094	Lower	TD > 100*	Vinyl chloride	10/1/2001	1	U	2	No
HI07-PZM094	Lower	TD > 100*	Vinyl chloride	7/1/2004	1	U	2	No
HI07-PZM094	Lower	TD > 100*	Xylenes	10/1/2001	1	UJ	10,000	No
HI07-PZM094	Lower	TD > 100*	Xylenes	7/1/2004	1	U	10,000	No
HI07-PZM094	Lower	TD > 100*	Zinc	7/1/2004	36		6,000	No
HI07-PZM094	Lower	TD > 100*	Zinc, dissolved	7/1/2004	31		6,000	No
TM02-PZM009	Shallow	11-21	1,1,1,2-Tetrachloroethane	12/4/2001	1	U		No
TM02-PZM009	Shallow	11-21	1,1,1-Trichloroethane	12/4/2001	1	U	200	No
TM02-PZM009	Shallow	11-21	1,1,2,2-Tetrachloroethane	12/4/2001	1	U	0.076	No
TM02-PZM009	Shallow	11-21	1,1,2-Trichloroethane	12/4/2001	1	U	5	No
TM02-PZM009	Shallow	11-21	1,1-Dichloroethane	12/4/2001	1	U	2.7	No
TM02-PZM009	Shallow	11-21	1,1-Dichloroethene	12/4/2001	1	U	7	No
TM02-PZM009	Shallow	11-21	1,2,4-Trichlorobenzene	12/4/2001	10	U	70	No
TM02-PZM009	Shallow	11-21	1,2-Dichlorobenzene	12/4/2001	10	U	600	No
TM02-PZM009	Shallow	11-21	1,2-Dichloroethane	12/4/2001	1	U	5	No
TM02-PZM009	Shallow	11-21	1,2-Dichloropropane	12/4/2001	1	U	5	No
TM02-PZM009	Shallow	11-21	1,3-Dichlorobenzene	12/4/2001	10	U		No
TM02-PZM009	Shallow	11-21	1,4-Dichlorobenzene	12/4/2001	10	U	75	No
TM02-PZM009	Shallow	11-21	2,2'-Oxybis(1-chloropropane)	12/4/2001	20	U	0.36	No
TM02-PZM009	Shallow	11-21	2,4,5-Trichlorophenol	12/4/2001	10	U	1,200	No
TM02-PZM009	Shallow	11-21	2,4,6-Trichlorophenol	12/4/2001	10	U	4	No
TM02-PZM009	Shallow	11-21	2,4-Dichlorophenol	12/4/2001	10	U	46	No
TM02-PZM009	Shallow	11-21	2,4-Dimethylphenol	12/4/2001	79		360	No
TM02-PZM009	Shallow	11-21	2,4-Dinitrophenol	12/4/2001	50	U	39	No
TM02-PZM009	Shallow	11-21	2,4-Dinitrotoluene	12/4/2001	10	U	0.24	No
TM02-PZM009	Shallow	11-21	2,6-Dinitrotoluene	12/4/2001	10	U	0.048	No
TM02-PZM009	Shallow	11-21	2-Butanone (MEK)	12/4/2001	5	U	5,600	No
TM02-PZM009	Shallow	11-21	2-Chloronaphthalene	12/4/2001	10	U	750	No
TM02-PZM009	Shallow	11-21	2-Chlorophenol	12/4/2001	10	U	91	No
TM02-PZM009	Shallow	11-21	2-Hexanone	12/4/2001	5	U	38	No
TM02-PZM009	Shallow	11-21	2-Methylnaphthalene	12/4/2001	1.3	J	36	No
TM02-PZM009	Shallow	11-21	2-Methylphenol	12/4/2001	4.5	J	930	No
TM02-PZM009	Shallow	11-21	2-Nitrophenol	12/4/2001	10	U	190	No
TM02-PZM009	Shallow	11-21	3-&4-Methylphenol	10/1/2001	77		930	No
TM02-PZM009	Shallow	11-21	3,3'-Dichlorobenzidine	12/4/2001	50	U	0.12	No
TM02-PZM009	Shallow	11-21	3,3'-Dimethylbenzidine	12/4/2001	50	U		No
TM02-PZM009	Shallow	11-21	4,6-Dinitro-2-methylphenol	12/4/2001	50	U		No
TM02-PZM009	Shallow	11-21	4-Bromophenyl-phenylether	12/4/2001	10	U		No
TM02-PZM009	Shallow	11-21	4-Chloro-3-methylphenol	12/4/2001	10	U		No
TM02-PZM009	Shallow	11-21	4-Chlorophenyl-phenylether	12/4/2001	10	U		No
TM02-PZM009	Shallow	11-21	4-Methyl-2-pentanone (MIBK)	12/4/2001	1.2	J	1,200	No
TM02-PZM009	Shallow	11-21	4-Methyl-2-pentanone (MIBK)	12/4/2001	5	U	1,200	No
TM02-PZM009	Shallow	11-21	4-Methylphenol	12/4/2001	77		930	No
TM02-PZM009	Shallow	11-21	4-Nitrophenol	12/4/2001	50	U		No
TM02-PZM009	Shallow	11-21	Acenaphthene	12/4/2001	2.2	J	530	No
TM02-PZM009	Shallow	11-21	Acenaphthylene	12/4/2001	10	U	530	No



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TM02-PZM009	Shallow	11-21	Acetone	12/4/2001	7.1	B	14,000	No
TM02-PZM009	Shallow	11-21	Acetone	12/4/2001	10	U	14,000	No
TM02-PZM009	Shallow	11-21	Anthracene	12/4/2001	10	U	1,800	No
TM02-PZM009	Shallow	11-21	Antimony	12/4/2001	4.1	U	6	No
TM02-PZM009	Shallow	11-21	Aroclor-1016	12/4/2001	1	U		No
TM02-PZM009	Shallow	11-21	Aroclor-1221	12/4/2001	1	U		No
TM02-PZM009	Shallow	11-21	Aroclor-1232	12/4/2001	1	U		No
TM02-PZM009	Shallow	11-21	Aroclor-1242	12/4/2001	1	U		No
TM02-PZM009	Shallow	11-21	Aroclor-1248	12/4/2001	1	U		No
TM02-PZM009	Shallow	11-21	Aroclor-1254	12/4/2001	1	U		No
TM02-PZM009	Shallow	11-21	Aroclor-1260	12/4/2001	1	U		No
TM02-PZM009	Shallow	11-21	Arsenic	12/4/2001	3.6	J	10	No
TM02-PZM009	Shallow	11-21	Barium	12/4/2001	92.4	J	2,000	No
TM02-PZM009	Shallow	11-21	Benz(a)anthracene	12/4/2001	10	U	0.0298	No
TM02-PZM009	Shallow	11-21	Benzene	12/4/2001	2.1		5	No
TM02-PZM009	Shallow	11-21	Benzene	12/4/2001	2.8		5	No
TM02-PZM009	Shallow	11-21	Benzo(a)pyrene	12/4/2001	10	U	0.2	No
TM02-PZM009	Shallow	11-21	Benzo(b)fluoranthene	12/4/2001	10	U	0.25	No
TM02-PZM009	Shallow	11-21	Benzo(g,h,i)perylene	12/4/2001	10	U		No
TM02-PZM009	Shallow	11-21	Benzo(k)fluoranthene	12/4/2001	10	U	2.5	No
TM02-PZM009	Shallow	11-21	Beryllium	10/1/2001	1.8	U	4	No
TM02-PZM009	Shallow	11-21	Beryllium	12/4/2001	1.8	B	4	No
TM02-PZM009	Shallow	11-21	Bicarbonate	12/19/2000	4,000	U		No
TM02-PZM009	Shallow	11-21	Bicarbonate	12/4/2001	5,000			No
TM02-PZM009	Shallow	11-21	bis(2-Chloroethoxy)methane	12/4/2001	10	U	59	No
TM02-PZM009	Shallow	11-21	bis(2-Chloroethyl)ether	12/4/2001	10	U	0.014	No
TM02-PZM009	Shallow	11-21	bis(2-Ethylhexyl)phthalate	12/4/2001	10	U	6	No
TM02-PZM009	Shallow	11-21	Bromoform	12/4/2001	1	U	0.13	No
TM02-PZM009	Shallow	11-21	Butylbenzylphthalate	12/4/2001	10	U		No
TM02-PZM009	Shallow	11-21	Cadmium	12/4/2001	0.63	U	5	No
TM02-PZM009	Shallow	11-21	Calcium	12/19/2000	280,000			No
TM02-PZM009	Shallow	11-21	Calcium	12/4/2001	281,000			No
TM02-PZM009	Shallow	11-21	Carbon disulfide	12/4/2001	1	U	810	No
TM02-PZM009	Shallow	11-21	Carbon tetrachloride	12/4/2001	1	U	5	No
TM02-PZM009	Shallow	11-21	Chloride	12/19/2000	280,000			No
TM02-PZM009	Shallow	11-21	Chloride	12/4/2001	278,000			No
TM02-PZM009	Shallow	11-21	Chlorobenzene	12/4/2001	1	U	100	No
TM02-PZM009	Shallow	11-21	Chloroethane	12/4/2001	2	UJ	21,000	No
TM02-PZM009	Shallow	11-21	Chloroethane	12/4/2001	2	U	21,000	No
TM02-PZM009	Shallow	11-21	Chloroform	12/4/2001	1	U	0.22	No
TM02-PZM009	Shallow	11-21	Chromium	10/1/2001	2.1	U	100	No
TM02-PZM009	Shallow	11-21	Chromium	12/4/2001	2.1	B	100	No
TM02-PZM009	Shallow	11-21	Chrysene	12/4/2001	10	U	25	No
TM02-PZM009	Shallow	11-21	cis-1,3-Dichloropropene	12/4/2001	1	U		No
TM02-PZM009	Shallow	11-21	Cobalt	12/4/2001	0.86	U	6	No
TM02-PZM009	Shallow	11-21	Copper	12/4/2001	0.77	U	1,300	No
TM02-PZM009	Shallow	11-21	Cyanide, amenable	10/1/2001	3,700	J	200	Yes
TM02-PZM009	Shallow	11-21	Cyanide, amenable	12/4/2001	3,700	J	200	Yes
TM02-PZM009	Shallow	11-21	Dibenz(a,h)anthracene	12/4/2001	10	U	0.025	No
TM02-PZM009	Shallow	11-21	Dibenzofuran	12/4/2001	1	J		No
TM02-PZM009	Shallow	11-21	Diethylphthalate	12/4/2001	10	U	15,000	No

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TM02-PZM009	Shallow	11-21	Dimethylphthalate	12/4/2001	10	U		No
TM02-PZM009	Shallow	11-21	Di-n-butylphthalate	12/4/2001	10	U	900	No
TM02-PZM009	Shallow	11-21	Di-n-octylphthalate	12/4/2001	10	U	200	No
TM02-PZM009	Shallow	11-21	Ethylbenzene	12/4/2001	0.26	J	700	No
TM02-PZM009	Shallow	11-21	Ethylbenzene	12/4/2001	0.27	J	700	No
TM02-PZM009	Shallow	11-21	Fluoranthene	12/4/2001	10	U	800	No
TM02-PZM009	Shallow	11-21	Fluorene	12/4/2001	1.5	J	290	No
TM02-PZM009	Shallow	11-21	Hexachlorobenzene	12/4/2001	10	U	1	No
TM02-PZM009	Shallow	11-21	Hexachlorobutadiene	12/4/2001	10	U	0.14	No
TM02-PZM009	Shallow	11-21	Hexachlorocyclopentadiene	12/4/2001	50	U	50	No
TM02-PZM009	Shallow	11-21	Hexachloroethane	12/4/2001	10	U	0.33	No
TM02-PZM009	Shallow	11-21	Indeno(1,2,3-cd)pyrene	12/4/2001	10	U	0.25	No
TM02-PZM009	Shallow	11-21	Iron	12/19/2000	100	U	14,000	No
TM02-PZM009	Shallow	11-21	Iron	12/4/2001	52.4	L	14,000	No
TM02-PZM009	Shallow	11-21	Isophorone	12/4/2001	10	U		No
TM02-PZM009	Shallow	11-21	Lead	10/1/2001	2.2	U	15	No
TM02-PZM009	Shallow	11-21	Lead	12/4/2001	2.2	B	15	No
TM02-PZM009	Shallow	11-21	Magnesium	12/19/2000	100	U		No
TM02-PZM009	Shallow	11-21	Magnesium	12/4/2001	15.9	J		No
TM02-PZM009	Shallow	11-21	Manganese	12/19/2000	10	U	430	No
TM02-PZM009	Shallow	11-21	Manganese	12/4/2001	0.8	B	430	No
TM02-PZM009	Shallow	11-21	Mercury	12/4/2001	0.054	UL	2	No
TM02-PZM009	Shallow	11-21	Methylene chloride	12/4/2001	2	U	5	No
TM02-PZM009	Shallow	11-21	Naphthalene	12/4/2001	20		0.17	Yes
TM02-PZM009	Shallow	11-21	Nickel	12/4/2001	13.5	J	390	No
TM02-PZM009	Shallow	11-21	Nitrobenzene	12/4/2001	10	U	0.14	No
TM02-PZM009	Shallow	11-21	Pentachloroethane	12/4/2001	50	U		No
TM02-PZM009	Shallow	11-21	Pentachlorophenol	12/4/2001	50	U	1	No
TM02-PZM009	Shallow	11-21	Phenanthrene	12/4/2001	3.8	J		No
TM02-PZM009	Shallow	11-21	Phenol	12/4/2001	10	U	5,800	No
TM02-PZM009	Shallow	11-21	Potassium	12/19/2000	74,000			No
TM02-PZM009	Shallow	11-21	Potassium	12/4/2001	81,800			No
TM02-PZM009	Shallow	11-21	Pyrene	12/4/2001	10	U	120	No
TM02-PZM009	Shallow	11-21	Pyridine	12/4/2001	20	U		No
TM02-PZM009	Shallow	11-21	Selenium	12/4/2001	5.5		50	No
TM02-PZM009	Shallow	11-21	Silver	12/4/2001	0.75	U	94	No
TM02-PZM009	Shallow	11-21	Sodium	12/19/2000	200,000			No
TM02-PZM009	Shallow	11-21	Sodium	12/4/2001	236,000			No
TM02-PZM009	Shallow	11-21	Sulfate	10/1/2000	740,000			No
TM02-PZM009	Shallow	11-21	Sulfate	12/19/2000	740,000			No
TM02-PZM009	Shallow	11-21	Sulfate	10/1/2001	575,000			No
TM02-PZM009	Shallow	11-21	Sulfate	12/4/2001	575,000			No
TM02-PZM009	Shallow	11-21	Sulfide	10/1/2001	2,800			No
TM02-PZM009	Shallow	11-21	Sulfide	12/4/2001	2,800			No
TM02-PZM009	Shallow	11-21	Tetrachloroethene	12/4/2001	1	U	5	No
TM02-PZM009	Shallow	11-21	Thallium	12/4/2001	5.7	U	2	No
TM02-PZM009	Shallow	11-21	Tin	12/4/2001	28.8	U		No
TM02-PZM009	Shallow	11-21	Toluene	12/4/2001	2.4		1,000	No
TM02-PZM009	Shallow	11-21	Toluene	12/4/2001	2.8		1,000	No
TM02-PZM009	Shallow	11-21	Total dissolved solids (TDS)	12/19/2000	1,700,000			No
TM02-PZM009	Shallow	11-21	trans-1,2-Dichloroethene	12/4/2001	1	U	100	No

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TM02-PZM009	Shallow	11-21	trans-1,3-Dichloropropene	12/4/2001	1	U		No
TM02-PZM009	Shallow	11-21	Trichloroethene	12/4/2001	0.29	J	5	No
TM02-PZM009	Shallow	11-21	Trichloroethene	12/4/2001	0.36	J	5	No
TM02-PZM009	Shallow	11-21	Vanadium	12/4/2001	75.4		86	No
TM02-PZM009	Shallow	11-21	Vinyl chloride	12/4/2001	2	U	2	No
TM02-PZM009	Shallow	11-21	Xylene, total	12/4/2001	1.9	J	10,000	No
TM02-PZM009	Shallow	11-21	Xylene, total	12/4/2001	2	J	10,000	No
TM02-PZM009	Shallow	11-21	Xylenes	10/1/2001	1.9	J	10,000	No
TM02-PZM009	Shallow	11-21	Zinc	12/4/2001	1.5	U	6,000	No
TM02-PZM028	Intermediate	31-41	1,1,1,2-Tetrachloroethane	11/28/2001	1	U		No
TM02-PZM028	Intermediate	31-41	1,1,1-Trichloroethane	11/28/2001	1	U	200	No
TM02-PZM028	Intermediate	31-41	1,1,2,2-Tetrachloroethane	11/28/2001	1	U	0.076	No
TM02-PZM028	Intermediate	31-41	1,1,2-Trichloroethane	11/28/2001	1	U	5	No
TM02-PZM028	Intermediate	31-41	1,1-Dichloroethane	11/28/2001	1	U	2.7	No
TM02-PZM028	Intermediate	31-41	1,1-Dichloroethene	11/28/2001	1	U	7	No
TM02-PZM028	Intermediate	31-41	1,2,4-Trichlorobenzene	11/28/2001	10	U	70	No
TM02-PZM028	Intermediate	31-41	1,2-Dichlorobenzene	11/28/2001	10	U	600	No
TM02-PZM028	Intermediate	31-41	1,2-Dichloroethane	11/28/2001	1	U	5	No
TM02-PZM028	Intermediate	31-41	1,2-Dichloropropane	11/28/2001	1	U	5	No
TM02-PZM028	Intermediate	31-41	1,3-Dichlorobenzene	11/28/2001	10	U		No
TM02-PZM028	Intermediate	31-41	1,4-Dichlorobenzene	11/28/2001	10	U	75	No
TM02-PZM028	Intermediate	31-41	2,2'-Oxybis(1-chloropropane)	11/28/2001	20	U	0.36	No
TM02-PZM028	Intermediate	31-41	2,4,5-Trichlorophenol	11/28/2001	10	U	1,200	No
TM02-PZM028	Intermediate	31-41	2,4,6-Trichlorophenol	11/28/2001	10	U	4	No
TM02-PZM028	Intermediate	31-41	2,4-Dichlorophenol	11/28/2001	10	U	46	No
TM02-PZM028	Intermediate	31-41	2,4-Dimethylphenol	11/28/2001	170		360	No
TM02-PZM028	Intermediate	31-41	2,4-Dimethylphenol	11/28/2001	180		360	No
TM02-PZM028	Intermediate	31-41	2,4-Dinitrophenol	11/28/2001	50	U	39	No
TM02-PZM028	Intermediate	31-41	2,4-Dinitrotoluene	11/28/2001	10	U	0.24	No
TM02-PZM028	Intermediate	31-41	2,6-Dinitrotoluene	11/28/2001	10	U	0.048	No
TM02-PZM028	Intermediate	31-41	2-Butanone (MEK)	11/28/2001	5	U	5,600	No
TM02-PZM028	Intermediate	31-41	2-Chloronaphthalene	11/28/2001	10	U	750	No
TM02-PZM028	Intermediate	31-41	2-Chlorophenol	11/28/2001	10	U	91	No
TM02-PZM028	Intermediate	31-41	2-Hexanone	11/28/2001	5	U	38	No
TM02-PZM028	Intermediate	31-41	2-Methylnaphthalene	11/28/2001	11		36	No
TM02-PZM028	Intermediate	31-41	2-Methylphenol	11/28/2001	5.2	J	930	No
TM02-PZM028	Intermediate	31-41	2-Nitrophenol	11/28/2001	10	U	190	No
TM02-PZM028	Intermediate	31-41	3-&4-Methylphenol	10/1/2001	85		930	No
TM02-PZM028	Intermediate	31-41	3,3'-Dichlorobenzidine	11/28/2001	50	U	0.12	No
TM02-PZM028	Intermediate	31-41	3,3'-Dimethylbenzidine	11/28/2001	50	U		No
TM02-PZM028	Intermediate	31-41	4,6-Dinitro-2-methylphenol	11/28/2001	50	U		No
TM02-PZM028	Intermediate	31-41	4-Bromophenyl-phenylether	11/28/2001	10	U		No
TM02-PZM028	Intermediate	31-41	4-Chloro-3-methylphenol	11/28/2001	10	U		No
TM02-PZM028	Intermediate	31-41	4-Chlorophenyl-phenylether	11/28/2001	10	U		No
TM02-PZM028	Intermediate	31-41	4-Methyl-2-pentanone (MIBK)	11/28/2001	5	U	1,200	No
TM02-PZM028	Intermediate	31-41	4-Methylphenol	11/28/2001	77		930	No
TM02-PZM028	Intermediate	31-41	4-Methylphenol	11/28/2001	85		930	No
TM02-PZM028	Intermediate	31-41	4-Nitrophenol	11/28/2001	50	U		No
TM02-PZM028	Intermediate	31-41	Acenaphthene	11/28/2001	2.6	J	530	No
TM02-PZM028	Intermediate	31-41	Acenaphthene	11/28/2001	2.8	J	530	No
TM02-PZM028	Intermediate	31-41	Acenaphthylene	11/28/2001	1.2	J	530	No

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TM02-PZM028	Intermediate	31-41	Acenaphthylene	11/28/2001	1.3	J	530	No
TM02-PZM028	Intermediate	31-41	Acetone	11/28/2001	3.6	J	14,000	No
TM02-PZM028	Intermediate	31-41	Acetone	11/28/2001	5.3	J	14,000	No
TM02-PZM028	Intermediate	31-41	Anthracene	11/28/2001	1.1	J	1,800	No
TM02-PZM028	Intermediate	31-41	Anthracene	11/28/2001	1.3	J	1,800	No
TM02-PZM028	Intermediate	31-41	Antimony	11/28/2001	4.1	U	6	No
TM02-PZM028	Intermediate	31-41	Aroclor-1016	11/28/2001	1	U		No
TM02-PZM028	Intermediate	31-41	Aroclor-1221	11/28/2001	1	U		No
TM02-PZM028	Intermediate	31-41	Aroclor-1232	11/28/2001	1	U		No
TM02-PZM028	Intermediate	31-41	Aroclor-1242	11/28/2001	1	U		No
TM02-PZM028	Intermediate	31-41	Aroclor-1248	11/28/2001	1	U		No
TM02-PZM028	Intermediate	31-41	Aroclor-1254	11/28/2001	1	U		No
TM02-PZM028	Intermediate	31-41	Aroclor-1260	11/28/2001	1	U		No
TM02-PZM028	Intermediate	31-41	Arsenic	11/28/2001	2	U	10	No
TM02-PZM028	Intermediate	31-41	Arsenic	11/28/2001	3.2	J	10	No
TM02-PZM028	Intermediate	31-41	Barium	11/28/2001	116	J	2,000	No
TM02-PZM028	Intermediate	31-41	Barium	11/28/2001	117	J	2,000	No
TM02-PZM028	Intermediate	31-41	Benz(a)anthracene	11/28/2001	10	U	0.0298	No
TM02-PZM028	Intermediate	31-41	Benzene	11/28/2001	5.8		5	Yes
TM02-PZM028	Intermediate	31-41	Benzene	11/28/2001	6.1		5	Yes
TM02-PZM028	Intermediate	31-41	Benzo(a)pyrene	11/28/2001	10	UJ	0.2	No
TM02-PZM028	Intermediate	31-41	Benzo(b)fluoranthene	11/28/2001	10	UJ	0.25	No
TM02-PZM028	Intermediate	31-41	Benzo(g,h,i)perylene	11/28/2001	10	UJ		No
TM02-PZM028	Intermediate	31-41	Benzo(k)fluoranthene	11/28/2001	10	UJ	2.5	No
TM02-PZM028	Intermediate	31-41	Beryllium	10/1/2001	2.2	U	4	No
TM02-PZM028	Intermediate	31-41	Beryllium	11/28/2001	2.2	B	4	No
TM02-PZM028	Intermediate	31-41	Beryllium	11/28/2001	3	B	4	No
TM02-PZM028	Intermediate	31-41	Bicarbonate	12/19/2000	4,000	U		No
TM02-PZM028	Intermediate	31-41	bis(2-Chloroethoxy)methane	11/28/2001	10	U	59	No
TM02-PZM028	Intermediate	31-41	bis(2-Chloroethyl)ether	11/28/2001	10	U	0.014	No
TM02-PZM028	Intermediate	31-41	bis(2-Ethylhexyl)phthalate	11/28/2001	10	U	6	No
TM02-PZM028	Intermediate	31-41	Bromoform	11/28/2001	1	U	0.13	No
TM02-PZM028	Intermediate	31-41	Butylbenzylphthalate	11/28/2001	10	U		No
TM02-PZM028	Intermediate	31-41	Cadmium	11/28/2001	0.63	U	5	No
TM02-PZM028	Intermediate	31-41	Calcium	12/19/2000	210,000			No
TM02-PZM028	Intermediate	31-41	Carbon disulfide	11/28/2001	1	U	810	No
TM02-PZM028	Intermediate	31-41	Carbon tetrachloride	11/28/2001	1	U	5	No
TM02-PZM028	Intermediate	31-41	Chloride	12/19/2000	350,000			No
TM02-PZM028	Intermediate	31-41	Chlorobenzene	11/28/2001	1	U	100	No
TM02-PZM028	Intermediate	31-41	Chloroethane	11/28/2001	2	U	21,000	No
TM02-PZM028	Intermediate	31-41	Chloroform	11/28/2001	1	U	0.22	No
TM02-PZM028	Intermediate	31-41	Chromium	11/28/2001	1.1	U	100	No
TM02-PZM028	Intermediate	31-41	Chromium	11/28/2001	1.7	J	100	No
TM02-PZM028	Intermediate	31-41	Chrysene	11/28/2001	10	U	25	No
TM02-PZM028	Intermediate	31-41	cis-1,3-Dichloropropene	11/28/2001	1	U		No
TM02-PZM028	Intermediate	31-41	Cobalt	11/28/2001	0.86	U	6	No
TM02-PZM028	Intermediate	31-41	Cobalt	11/28/2001	1.9	J	6	No
TM02-PZM028	Intermediate	31-41	Copper	10/1/2001	7	U	1,300	No
TM02-PZM028	Intermediate	31-41	Copper	11/28/2001	7	B	1,300	No
TM02-PZM028	Intermediate	31-41	Copper	11/28/2001	7.3	B	1,300	No
TM02-PZM028	Intermediate	31-41	Cyanide, amenable	10/1/2001	7,600	J	200	Yes

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TM02-PZM028	Intermediate	31-41	Cyanide, amenable	11/28/2001	6,300	J	200	Yes
TM02-PZM028	Intermediate	31-41	Cyanide, amenable	11/28/2001	7,600	J	200	Yes
TM02-PZM028	Intermediate	31-41	Dibenz(a,h)anthracene	11/28/2001	10	UJ	0.025	No
TM02-PZM028	Intermediate	31-41	Dibenzofuran	11/28/2001	3.3	J		No
TM02-PZM028	Intermediate	31-41	Dibenzofuran	11/28/2001	3.6	J		No
TM02-PZM028	Intermediate	31-41	Diethylphthalate	11/28/2001	10	U	15,000	No
TM02-PZM028	Intermediate	31-41	Dimethylphthalate	11/28/2001	10	U		No
TM02-PZM028	Intermediate	31-41	Di-n-butylphthalate	11/28/2001	10	U	900	No
TM02-PZM028	Intermediate	31-41	Di-n-octylphthalate	11/28/2001	10	UJ	200	No
TM02-PZM028	Intermediate	31-41	Ethylbenzene	11/28/2001	0.48	J	700	No
TM02-PZM028	Intermediate	31-41	Ethylbenzene	11/28/2001	0.56	J	700	No
TM02-PZM028	Intermediate	31-41	Fluoranthene	11/28/2001	1.4	J	800	No
TM02-PZM028	Intermediate	31-41	Fluoranthene	11/28/2001	1.5	J	800	No
TM02-PZM028	Intermediate	31-41	Fluorene	11/28/2001	3.5	J	290	No
TM02-PZM028	Intermediate	31-41	Fluorene	11/28/2001	3.6	J	290	No
TM02-PZM028	Intermediate	31-41	Hexachlorobenzene	11/28/2001	10	U	1	No
TM02-PZM028	Intermediate	31-41	Hexachlorobutadiene	11/28/2001	10	U	0.14	No
TM02-PZM028	Intermediate	31-41	Hexachlorocyclopentadiene	11/28/2001	50	U	50	No
TM02-PZM028	Intermediate	31-41	Hexachloroethane	11/28/2001	10	U	0.33	No
TM02-PZM028	Intermediate	31-41	Indeno(1,2,3-cd)pyrene	11/28/2001	10	UJ	0.25	No
TM02-PZM028	Intermediate	31-41	Iron	12/19/2000	100	U	14,000	No
TM02-PZM028	Intermediate	31-41	Isophorone	11/28/2001	10	U		No
TM02-PZM028	Intermediate	31-41	Lead	11/28/2001	1.8	U	15	No
TM02-PZM028	Intermediate	31-41	Magnesium	12/19/2000	100	U		No
TM02-PZM028	Intermediate	31-41	Manganese	12/19/2000	10	U	430	No
TM02-PZM028	Intermediate	31-41	Mercury	11/28/2001	0.054	U	2	No
TM02-PZM028	Intermediate	31-41	Methylene chloride	11/28/2001	2	U	5	No
TM02-PZM028	Intermediate	31-41	Naphthalene	11/28/2001	150		0.17	Yes
TM02-PZM028	Intermediate	31-41	Nickel	11/28/2001	14.6	J	390	No
TM02-PZM028	Intermediate	31-41	Nickel	11/28/2001	15.9	J	390	No
TM02-PZM028	Intermediate	31-41	Nitrobenzene	11/28/2001	10	U	0.14	No
TM02-PZM028	Intermediate	31-41	Pentachloroethane	11/28/2001	50	U		No
TM02-PZM028	Intermediate	31-41	Pentachlorophenol	11/28/2001	50	U	1	No
TM02-PZM028	Intermediate	31-41	Phenanthrene	11/28/2001	7.6	J		No
TM02-PZM028	Intermediate	31-41	Phenanthrene	11/28/2001	7.8	J		No
TM02-PZM028	Intermediate	31-41	Phenol	11/28/2001	7.7	J	5,800	No
TM02-PZM028	Intermediate	31-41	Phenol	11/28/2001	8	J	5,800	No
TM02-PZM028	Intermediate	31-41	Potassium	12/19/2000	79,000			No
TM02-PZM028	Intermediate	31-41	Pyrene	11/28/2001	10	U	120	No
TM02-PZM028	Intermediate	31-41	Pyridine	11/28/2001	20	U		No
TM02-PZM028	Intermediate	31-41	Selenium	11/28/2001	3.2	U	50	No
TM02-PZM028	Intermediate	31-41	Silver	11/28/2001	0.75	U	94	No
TM02-PZM028	Intermediate	31-41	Sodium	12/19/2000	220,000			No
TM02-PZM028	Intermediate	31-41	Sulfate	10/1/2000	340,000			No
TM02-PZM028	Intermediate	31-41	Sulfate	12/19/2000	340,000			No
TM02-PZM028	Intermediate	31-41	Sulfide	10/1/2001	1,000	U		No
TM02-PZM028	Intermediate	31-41	Sulfide	11/28/2001	1,000	U		No
TM02-PZM028	Intermediate	31-41	Tetrachloroethene	11/28/2001	1	U	5	No
TM02-PZM028	Intermediate	31-41	Thallium	11/28/2001	5.7	U	2	No
TM02-PZM028	Intermediate	31-41	Tin	11/28/2001	28.8	U		No
TM02-PZM028	Intermediate	31-41	Toluene	11/28/2001	4.6		1,000	No

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TM02-PZM028	Intermediate	31-41	Toluene	11/28/2001	5.2		1,000	No
TM02-PZM028	Intermediate	31-41	Total dissolved solids (TDS)	12/19/2000	1,400,000			No
TM02-PZM028	Intermediate	31-41	trans-1,2-Dichloroethene	11/28/2001	1	U	100	No
TM02-PZM028	Intermediate	31-41	trans-1,3-Dichloropropene	11/28/2001	1	U		No
TM02-PZM028	Intermediate	31-41	Trichloroethene	11/28/2001	1		5	No
TM02-PZM028	Intermediate	31-41	Vanadium	11/28/2001	24.9	J	86	No
TM02-PZM028	Intermediate	31-41	Vanadium	11/28/2001	29.6	J	86	No
TM02-PZM028	Intermediate	31-41	Vinyl chloride	11/28/2001	2	U	2	No
TM02-PZM028	Intermediate	31-41	Xylene, total	11/28/2001	8.8		10,000	No
TM02-PZM028	Intermediate	31-41	Xylene, total	11/28/2001	9.8		10,000	No
TM02-PZM028	Intermediate	31-41	Xylenes	10/1/2001	9.8		10,000	No
TM02-PZM028	Intermediate	31-41	Zinc	10/1/2001	6.2	U	6,000	No
TM02-PZM028	Intermediate	31-41	Zinc	11/28/2001	3.3	B	6,000	No
TM02-PZM028	Intermediate	31-41	Zinc	11/28/2001	6.2	B	6,000	No
TM02-PZM062	Lower	60-70	1,1,1,2-Tetrachloroethane	11/28/2001	1	U		No
TM02-PZM062	Lower	60-70	1,1,1-Trichloroethane	11/28/2001	1	U	200	No
TM02-PZM062	Lower	60-70	1,1,2,2-Tetrachloroethane	11/28/2001	1	U	0.076	No
TM02-PZM062	Lower	60-70	1,1,2-Trichloroethane	11/28/2001	1	U	5	No
TM02-PZM062	Lower	60-70	1,1-Dichloroethane	11/28/2001	1	U	2.7	No
TM02-PZM062	Lower	60-70	1,1-Dichloroethene	11/28/2001	1	U	7	No
TM02-PZM062	Lower	60-70	1,2,4-Trichlorobenzene	11/28/2001	10	U	70	No
TM02-PZM062	Lower	60-70	1,2-Dichlorobenzene	11/28/2001	10	U	600	No
TM02-PZM062	Lower	60-70	1,2-Dichloroethane	11/28/2001	1	U	5	No
TM02-PZM062	Lower	60-70	1,2-Dichloropropane	11/28/2001	1	U	5	No
TM02-PZM062	Lower	60-70	1,3-Dichlorobenzene	11/28/2001	10	U		No
TM02-PZM062	Lower	60-70	1,4-Dichlorobenzene	11/28/2001	10	U	75	No
TM02-PZM062	Lower	60-70	2,2'-Oxybis(1-chloropropane)	11/28/2001	20	U	0.36	No
TM02-PZM062	Lower	60-70	2,4,5-Trichlorophenol	11/28/2001	10	U	1,200	No
TM02-PZM062	Lower	60-70	2,4,6-Trichlorophenol	11/28/2001	10	U	4	No
TM02-PZM062	Lower	60-70	2,4-Dichlorophenol	11/28/2001	10	U	46	No
TM02-PZM062	Lower	60-70	2,4-Dimethylphenol	11/28/2001	45		360	No
TM02-PZM062	Lower	60-70	2,4-Dinitrophenol	11/28/2001	50	U	39	No
TM02-PZM062	Lower	60-70	2,4-Dinitrotoluene	11/28/2001	10	U	0.24	No
TM02-PZM062	Lower	60-70	2,6-Dinitrotoluene	11/28/2001	10	U	0.048	No
TM02-PZM062	Lower	60-70	2-Butanone (MEK)	11/28/2001	1.4	J	5,600	No
TM02-PZM062	Lower	60-70	2-Chloronaphthalene	11/28/2001	10	U	750	No
TM02-PZM062	Lower	60-70	2-Chlorophenol	11/28/2001	10	U	91	No
TM02-PZM062	Lower	60-70	2-Hexanone	11/28/2001	5	U	38	No
TM02-PZM062	Lower	60-70	2-Methylnaphthalene	11/28/2001	3.5	J	36	No
TM02-PZM062	Lower	60-70	2-Methylphenol	11/28/2001	2	J	930	No
TM02-PZM062	Lower	60-70	2-Nitrophenol	11/28/2001	10	U	190	No
TM02-PZM062	Lower	60-70	3-&4-Methylphenol	10/1/2001	27		930	No
TM02-PZM062	Lower	60-70	3,3'-Dichlorobenzidine	11/28/2001	50	U	0.12	No
TM02-PZM062	Lower	60-70	3,3'-Dimethylbenzidine	11/28/2001	50	U		No
TM02-PZM062	Lower	60-70	4,6-Dinitro-2-methylphenol	11/28/2001	50	U		No
TM02-PZM062	Lower	60-70	4-Bromophenyl-phenylether	11/28/2001	10	U		No
TM02-PZM062	Lower	60-70	4-Chloro-3-methylphenol	11/28/2001	10	U		No
TM02-PZM062	Lower	60-70	4-Chlorophenyl-phenylether	11/28/2001	10	U		No
TM02-PZM062	Lower	60-70	4-Methyl-2-pentanone (MIBK)	11/28/2001	5	U	1,200	No
TM02-PZM062	Lower	60-70	4-Methylphenol	11/28/2001	27		930	No
TM02-PZM062	Lower	60-70	4-Nitrophenol	11/28/2001	50	U		No

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TM02-PZM062	Lower	60-70	Acenaphthene	11/28/2001	1.7	J	530	No
TM02-PZM062	Lower	60-70	Acenaphthylene	11/28/2001	1	J	530	No
TM02-PZM062	Lower	60-70	Acetone	11/28/2001	6.7	J	14,000	No
TM02-PZM062	Lower	60-70	Anthracene	11/28/2001	10	U	1,800	No
TM02-PZM062	Lower	60-70	Antimony	11/28/2001	4.1	U	6	No
TM02-PZM062	Lower	60-70	Aroclor-1016	11/28/2001	1	U		No
TM02-PZM062	Lower	60-70	Aroclor-1221	11/28/2001	1	U		No
TM02-PZM062	Lower	60-70	Aroclor-1232	11/28/2001	1	U		No
TM02-PZM062	Lower	60-70	Aroclor-1242	11/28/2001	1	U		No
TM02-PZM062	Lower	60-70	Aroclor-1248	11/28/2001	1	U		No
TM02-PZM062	Lower	60-70	Aroclor-1254	11/28/2001	1	U		No
TM02-PZM062	Lower	60-70	Aroclor-1260	11/28/2001	1	U		No
TM02-PZM062	Lower	60-70	Arsenic	11/28/2001	15.4		10	Yes
TM02-PZM062	Lower	60-70	Barium	11/28/2001	125	J	2,000	No
TM02-PZM062	Lower	60-70	Benz(a)anthracene	11/28/2001	10	U	0.0298	No
TM02-PZM062	Lower	60-70	Benzene	11/28/2001	2.7		5	No
TM02-PZM062	Lower	60-70	Benzo(a)pyrene	11/28/2001	10	U	0.2	No
TM02-PZM062	Lower	60-70	Benzo(b)fluoranthene	11/28/2001	10	U	0.25	No
TM02-PZM062	Lower	60-70	Benzo(g,h,i)perylene	11/28/2001	10	U		No
TM02-PZM062	Lower	60-70	Benzo(k)fluoranthene	11/28/2001	10	U	2.5	No
TM02-PZM062	Lower	60-70	Beryllium	10/1/2001	3.4	U	4	No
TM02-PZM062	Lower	60-70	Beryllium	11/28/2001	3.4	B	4	No
TM02-PZM062	Lower	60-70	Bicarbonate	11/28/2001	138,000			No
TM02-PZM062	Lower	60-70	bis(2-Chloroethoxy)methane	11/28/2001	10	U	59	No
TM02-PZM062	Lower	60-70	bis(2-Chloroethyl)ether	11/28/2001	10	U	0.014	No
TM02-PZM062	Lower	60-70	bis(2-Ethylhexyl)phthalate	11/28/2001	10	U	6	No
TM02-PZM062	Lower	60-70	Bromoform	11/28/2001	1	U	0.13	No
TM02-PZM062	Lower	60-70	Butylbenzylphthalate	11/28/2001	10	U		No
TM02-PZM062	Lower	60-70	Cadmium	11/28/2001	0.63	U	5	No
TM02-PZM062	Lower	60-70	Calcium	11/28/2001	114,000			No
TM02-PZM062	Lower	60-70	Carbon disulfide	11/28/2001	1	U	810	No
TM02-PZM062	Lower	60-70	Carbon tetrachloride	11/28/2001	1	U	5	No
TM02-PZM062	Lower	60-70	Chloride	11/28/2001	867,000			No
TM02-PZM062	Lower	60-70	Chlorobenzene	11/28/2001	1	U	100	No
TM02-PZM062	Lower	60-70	Chloroethane	11/28/2001	2	U	21,000	No
TM02-PZM062	Lower	60-70	Chloroform	11/28/2001	1	U	0.22	No
TM02-PZM062	Lower	60-70	Chromium	11/28/2001	2.4	J	100	No
TM02-PZM062	Lower	60-70	Chrysene	11/28/2001	10	U	25	No
TM02-PZM062	Lower	60-70	cis-1,3-Dichloropropene	11/28/2001	1	U		No
TM02-PZM062	Lower	60-70	Cobalt	11/28/2001	0.86	U	6	No
TM02-PZM062	Lower	60-70	Copper	10/1/2001	6.8	U	1,300	No
TM02-PZM062	Lower	60-70	Copper	11/28/2001	6.8	B	1,300	No
TM02-PZM062	Lower	60-70	Cyanide, amenable	10/1/2001	430	J	200	Yes
TM02-PZM062	Lower	60-70	Cyanide, amenable	11/28/2001	430	J	200	Yes
TM02-PZM062	Lower	60-70	Dibenz(a,h)anthracene	11/28/2001	10	U	0.025	No
TM02-PZM062	Lower	60-70	Dibenzofuran	11/28/2001	1.8	J		No
TM02-PZM062	Lower	60-70	Diethylphthalate	11/28/2001	10	U	15,000	No
TM02-PZM062	Lower	60-70	Dimethylphthalate	11/28/2001	10	U		No
TM02-PZM062	Lower	60-70	Di-n-butylphthalate	11/28/2001	10	U	900	No
TM02-PZM062	Lower	60-70	Di-n-octylphthalate	11/28/2001	10	U	200	No
TM02-PZM062	Lower	60-70	Ethylbenzene	11/28/2001	1	U	700	No

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TM02-PZM062	Lower	60-70	Fluoranthene	11/28/2001	1.4	J	800	No
TM02-PZM062	Lower	60-70	Fluorene	11/28/2001	2.1	J	290	No
TM02-PZM062	Lower	60-70	Hexachlorobenzene	11/28/2001	10	U	1	No
TM02-PZM062	Lower	60-70	Hexachlorobutadiene	11/28/2001	10	U	0.14	No
TM02-PZM062	Lower	60-70	Hexachlorocyclopentadiene	11/28/2001	50	U	50	No
TM02-PZM062	Lower	60-70	Hexachloroethane	11/28/2001	10	U	0.33	No
TM02-PZM062	Lower	60-70	Indeno(1,2,3-cd)pyrene	11/28/2001	10	U	0.25	No
TM02-PZM062	Lower	60-70	Iron	11/28/2001	7,500		14,000	No
TM02-PZM062	Lower	60-70	Isophorone	11/28/2001	10	U		No
TM02-PZM062	Lower	60-70	Lead	11/28/2001	1.8	U	15	No
TM02-PZM062	Lower	60-70	Magnesium	11/28/2001	28,400			No
TM02-PZM062	Lower	60-70	Manganese	11/28/2001	329		430	No
TM02-PZM062	Lower	60-70	Mercury	11/28/2001	0.054	U	2	No
TM02-PZM062	Lower	60-70	Methylene chloride	11/28/2001	2	U	5	No
TM02-PZM062	Lower	60-70	Naphthalene	11/28/2001	41		0.17	Yes
TM02-PZM062	Lower	60-70	Nickel	11/28/2001	3.8	J	390	No
TM02-PZM062	Lower	60-70	Nitrobenzene	11/28/2001	10	U	0.14	No
TM02-PZM062	Lower	60-70	Pentachloroethane	11/28/2001	50	U		No
TM02-PZM062	Lower	60-70	Pentachlorophenol	11/28/2001	50	U	1	No
TM02-PZM062	Lower	60-70	Phenanthrene	11/28/2001	5.1	J		No
TM02-PZM062	Lower	60-70	Phenol	11/28/2001	29		5,800	No
TM02-PZM062	Lower	60-70	Potassium	11/28/2001	40,100			No
TM02-PZM062	Lower	60-70	Pyrene	11/28/2001	10	U	120	No
TM02-PZM062	Lower	60-70	Pyridine	11/28/2001	20	U		No
TM02-PZM062	Lower	60-70	Selenium	11/28/2001	3.2	U	50	No
TM02-PZM062	Lower	60-70	Silver	11/28/2001	0.75	U	94	No
TM02-PZM062	Lower	60-70	Sodium	11/28/2001	396,000			No
TM02-PZM062	Lower	60-70	Sulfate	10/1/2001	60,200			No
TM02-PZM062	Lower	60-70	Sulfate	11/28/2001	60,200			No
TM02-PZM062	Lower	60-70	Sulfide	10/1/2001	1,000	U		No
TM02-PZM062	Lower	60-70	Sulfide	11/28/2001	1,000	U		No
TM02-PZM062	Lower	60-70	Tetrachloroethene	11/28/2001	1	U	5	No
TM02-PZM062	Lower	60-70	Thallium	11/28/2001	5.7	U	2	No
TM02-PZM062	Lower	60-70	Tin	11/28/2001	28.8	U		No
TM02-PZM062	Lower	60-70	Toluene	11/28/2001	2.1		1,000	No
TM02-PZM062	Lower	60-70	trans-1,2-Dichloroethene	11/28/2001	1	U	100	No
TM02-PZM062	Lower	60-70	trans-1,3-Dichloropropene	11/28/2001	1	U		No
TM02-PZM062	Lower	60-70	Trichloroethene	11/28/2001	2		5	No
TM02-PZM062	Lower	60-70	Vanadium	11/28/2001	19.5	J	86	No
TM02-PZM062	Lower	60-70	Vinyl chloride	11/28/2001	2	U	2	No
TM02-PZM062	Lower	60-70	Xylene, total	11/28/2001	3.7		10,000	No
TM02-PZM062	Lower	60-70	Xylenes	10/1/2001	3.7		10,000	No
TM02-PZM062	Lower	60-70	Zinc	10/1/2001	4	U	6,000	No
TM02-PZM062	Lower	60-70	Zinc	11/28/2001	4	B	6,000	No
TM04-PZM006	Shallow	11-21	1,1,1,2-Tetrachloroethane	12/3/2001	1	U		No
TM04-PZM006	Shallow	11-21	1,1,1,2-Tetrachloroethane	7/1/2004	5	U		No
TM04-PZM006	Shallow	11-21	1,1,1-Trichloroethane	12/3/2001	1	U	200	No
TM04-PZM006	Shallow	11-21	1,1,1-Trichloroethane	7/1/2004	5	U	200	No
TM04-PZM006	Shallow	11-21	1,1,2,2-Tetrachloroethane	12/3/2001	1	U	0.076	No
TM04-PZM006	Shallow	11-21	1,1,2,2-Tetrachloroethane	7/1/2004	5	U	0.076	No
TM04-PZM006	Shallow	11-21	1,1,2-Trichloroethane	12/3/2001	1	U	5	No



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TM04-PZM006	Shallow	11-21	1,1,2-Trichloroethane	7/1/2004	5	U	5	No
TM04-PZM006	Shallow	11-21	1,1-Dichloroethane	12/3/2001	2.3		2.7	No
TM04-PZM006	Shallow	11-21	1,1-Dichloroethane	7/1/2004	5	U	2.7	No
TM04-PZM006	Shallow	11-21	1,1-Dichloroethene	12/3/2001	1	U	7	No
TM04-PZM006	Shallow	11-21	1,1-Dichloroethene	7/1/2004	5	U	7	No
TM04-PZM006	Shallow	11-21	1,2,4-Trichlorobenzene	12/3/2001	10	U	70	No
TM04-PZM006	Shallow	11-21	1,2,4-Trichlorobenzene	7/1/2004	10	U	70	No
TM04-PZM006	Shallow	11-21	1,2-Dichlorobenzene	12/3/2001	10	U	600	No
TM04-PZM006	Shallow	11-21	1,2-Dichlorobenzene	7/1/2004	10	U	600	No
TM04-PZM006	Shallow	11-21	1,2-Dichloroethane	12/3/2001	1	U	5	No
TM04-PZM006	Shallow	11-21	1,2-Dichloroethane	7/1/2004	5	U	5	No
TM04-PZM006	Shallow	11-21	1,2-Dichloropropane	12/3/2001	1	U	5	No
TM04-PZM006	Shallow	11-21	1,2-Dichloropropane	7/1/2004	5	U	5	No
TM04-PZM006	Shallow	11-21	1,3-Dichlorobenzene	12/3/2001	10	U		No
TM04-PZM006	Shallow	11-21	1,3-Dichlorobenzene	7/1/2004	10	U		No
TM04-PZM006	Shallow	11-21	1,4-Dichlorobenzene	12/3/2001	10	U	75	No
TM04-PZM006	Shallow	11-21	1,4-Dichlorobenzene	7/1/2004	10	U	75	No
TM04-PZM006	Shallow	11-21	2,2'-Oxybis(1-chloropropane)	12/3/2001	20	U	0.36	No
TM04-PZM006	Shallow	11-21	2,4,5-Trichlorophenol	12/3/2001	10	U	1,200	No
TM04-PZM006	Shallow	11-21	2,4,5-Trichlorophenol	7/1/2004	10	U	1,200	No
TM04-PZM006	Shallow	11-21	2,4,6-Trichlorophenol	12/3/2001	10	U	4	No
TM04-PZM006	Shallow	11-21	2,4,6-Trichlorophenol	7/1/2004	10	U	4	No
TM04-PZM006	Shallow	11-21	2,4-Dichlorophenol	12/3/2001	10	U	46	No
TM04-PZM006	Shallow	11-21	2,4-Dichlorophenol	7/1/2004	10	U	46	No
TM04-PZM006	Shallow	11-21	2,4-Dimethylphenol	12/3/2001	51		360	No
TM04-PZM006	Shallow	11-21	2,4-Dimethylphenol	7/1/2004	15		360	No
TM04-PZM006	Shallow	11-21	2,4-Dinitrophenol	12/3/2001	50	U	39	No
TM04-PZM006	Shallow	11-21	2,4-Dinitrophenol	7/1/2004	50	U	39	No
TM04-PZM006	Shallow	11-21	2,4-Dinitrotoluene	12/3/2001	10	U	0.24	No
TM04-PZM006	Shallow	11-21	2,4-Dinitrotoluene	7/1/2004	10	U	0.24	No
TM04-PZM006	Shallow	11-21	2,6-Dinitrotoluene	12/3/2001	10	U	0.048	No
TM04-PZM006	Shallow	11-21	2,6-Dinitrotoluene	7/1/2004	10	U	0.048	No
TM04-PZM006	Shallow	11-21	2-Butanone (MEK)	12/3/2001	5	U	5,600	No
TM04-PZM006	Shallow	11-21	2-Butanone (MEK)	7/1/2004	25	U	5,600	No
TM04-PZM006	Shallow	11-21	2-Chloronaphthalene	12/3/2001	10	U	750	No
TM04-PZM006	Shallow	11-21	2-Chloronaphthalene	7/1/2004	10	U	750	No
TM04-PZM006	Shallow	11-21	2-Chlorophenol	12/3/2001	10	U	91	No
TM04-PZM006	Shallow	11-21	2-Chlorophenol	7/1/2004	10	U	91	No
TM04-PZM006	Shallow	11-21	2-Hexanone	12/3/2001	5	U	38	No
TM04-PZM006	Shallow	11-21	2-Hexanone	7/1/2004	25	U	38	No
TM04-PZM006	Shallow	11-21	2-Methylnaphthalene	12/3/2001	1.2	J	36	No
TM04-PZM006	Shallow	11-21	2-Methylnaphthalene	7/1/2004	10	U	36	No
TM04-PZM006	Shallow	11-21	2-Methylphenol	12/3/2001	0.91	J	930	No
TM04-PZM006	Shallow	11-21	2-Methylphenol	7/1/2004	10	U	930	No
TM04-PZM006	Shallow	11-21	2-Nitrophenol	12/3/2001	10	U	190	No
TM04-PZM006	Shallow	11-21	2-Nitrophenol	7/1/2004	10	U	190	No
TM04-PZM006	Shallow	11-21	3-&4-Methylphenol	7/1/2004	10	U	930	No
TM04-PZM006	Shallow	11-21	3,3'-Dichlorobenzidine	12/3/2001	50	U	0.12	No
TM04-PZM006	Shallow	11-21	3,3'-Dichlorobenzidine	7/1/2004	20	U	0.12	No
TM04-PZM006	Shallow	11-21	3,3'-Dimethylbenzidine	12/3/2001	50	U		No
TM04-PZM006	Shallow	11-21	3,3'-Dimethylbenzidine	7/1/2004	50	U		No

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TM04-PZM006	Shallow	11-21	4,6-Dinitro-2-methylphenol	12/3/2001	50	U		No
TM04-PZM006	Shallow	11-21	4,6-Dinitro-2-methylphenol	7/1/2004	50	U		No
TM04-PZM006	Shallow	11-21	4-Bromophenyl-phenylether	12/3/2001	10	U		No
TM04-PZM006	Shallow	11-21	4-Bromophenyl-phenylether	7/1/2004	10	U		No
TM04-PZM006	Shallow	11-21	4-Chloro-3-methylphenol	12/3/2001	10	U		No
TM04-PZM006	Shallow	11-21	4-Chloro-3-methylphenol	7/1/2004	10	U		No
TM04-PZM006	Shallow	11-21	4-Chlorophenyl-phenylether	12/3/2001	10	U		No
TM04-PZM006	Shallow	11-21	4-Chlorophenyl-phenylether	7/1/2004	10	U		No
TM04-PZM006	Shallow	11-21	4-Methyl-2-pentanone (MIBK)	12/3/2001	5	U	1,200	No
TM04-PZM006	Shallow	11-21	4-Methyl-2-pentanone (MIBK)	7/1/2004	25	U	1,200	No
TM04-PZM006	Shallow	11-21	4-Methylphenol	12/3/2001	10	U	930	No
TM04-PZM006	Shallow	11-21	4-Nitrophenol	12/3/2001	50	U		No
TM04-PZM006	Shallow	11-21	4-Nitrophenol	7/1/2004	50	U		No
TM04-PZM006	Shallow	11-21	Acenaphthene	12/3/2001	10	U	530	No
TM04-PZM006	Shallow	11-21	Acenaphthene	7/1/2004	10	U	530	No
TM04-PZM006	Shallow	11-21	Acenaphthylene	12/3/2001	1.3	J	530	No
TM04-PZM006	Shallow	11-21	Acenaphthylene	7/1/2004	10	U	530	No
TM04-PZM006	Shallow	11-21	Acetone	12/3/2001	3.2	J	14,000	No
TM04-PZM006	Shallow	11-21	Acetone	7/1/2004	17	J	14,000	No
TM04-PZM006	Shallow	11-21	Anthracene	12/3/2001	10	U	1,800	No
TM04-PZM006	Shallow	11-21	Anthracene	7/1/2004	10	U	1,800	No
TM04-PZM006	Shallow	11-21	Antimony	12/3/2001	4.1	U	6	No
TM04-PZM006	Shallow	11-21	Antimony	7/1/2004	2	U	6	No
TM04-PZM006	Shallow	11-21	Antimony, dissolved	7/1/2004	2	U	6	No
TM04-PZM006	Shallow	11-21	Aroclor-1016	12/3/2001	1	U		No
TM04-PZM006	Shallow	11-21	Aroclor-1221	12/3/2001	1	U		No
TM04-PZM006	Shallow	11-21	Aroclor-1232	12/3/2001	1	U		No
TM04-PZM006	Shallow	11-21	Aroclor-1242	12/3/2001	1	U		No
TM04-PZM006	Shallow	11-21	Aroclor-1248	12/3/2001	1	U		No
TM04-PZM006	Shallow	11-21	Aroclor-1254	12/3/2001	1	U		No
TM04-PZM006	Shallow	11-21	Aroclor-1260	12/3/2001	1	U		No
TM04-PZM006	Shallow	11-21	Arsenic	12/3/2001	2.1	J	10	No
TM04-PZM006	Shallow	11-21	Arsenic	7/1/2004	5	U	10	No
TM04-PZM006	Shallow	11-21	Arsenic, dissolved	7/1/2004	5	U	10	No
TM04-PZM006	Shallow	11-21	Barium	12/3/2001	41	J	2,000	No
TM04-PZM006	Shallow	11-21	Barium	7/1/2004	32		2,000	No
TM04-PZM006	Shallow	11-21	Barium, dissolved	7/1/2004	32		2,000	No
TM04-PZM006	Shallow	11-21	Benz(a)anthracene	12/3/2001	10	U	0.0298	No
TM04-PZM006	Shallow	11-21	Benz(a)anthracene	7/1/2004	10	U	0.0298	No
TM04-PZM006	Shallow	11-21	Benzene	12/3/2001	1,400		5	Yes
TM04-PZM006	Shallow	11-21	Benzene	7/1/2004	610		5	Yes
TM04-PZM006	Shallow	11-21	Benzo(a)pyrene	12/3/2001	10	U	0.2	No
TM04-PZM006	Shallow	11-21	Benzo(a)pyrene	7/1/2004	10	U	0.2	No
TM04-PZM006	Shallow	11-21	Benzo(b)fluoranthene	12/3/2001	10	U	0.25	No
TM04-PZM006	Shallow	11-21	Benzo(b)fluoranthene	7/1/2004	10	U	0.25	No
TM04-PZM006	Shallow	11-21	Benzo(g,h,i)perylene	12/3/2001	10	U		No
TM04-PZM006	Shallow	11-21	Benzo(g,h,i)perylene	7/1/2004	10	U		No
TM04-PZM006	Shallow	11-21	Benzo(k)fluoranthene	12/3/2001	10	U	2.5	No
TM04-PZM006	Shallow	11-21	Benzo(k)fluoranthene	7/1/2004	10	U	2.5	No
TM04-PZM006	Shallow	11-21	Beryllium	12/3/2001	1.3	B	4	No
TM04-PZM006	Shallow	11-21	Beryllium	7/1/2004	1	U	4	No

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TM04-PZM006	Shallow	11-21	Beryllium, dissolved	7/1/2004	1	U	4	No
TM04-PZM006	Shallow	11-21	Bicarbonate	12/19/2000	1,000	U		No
TM04-PZM006	Shallow	11-21	bis(2-Chloroethoxy)methane	12/3/2001	10	U	59	No
TM04-PZM006	Shallow	11-21	bis(2-Chloroethoxy)methane	7/1/2004	10	U	59	No
TM04-PZM006	Shallow	11-21	bis(2-Chloroethyl)ether	12/3/2001	10	U	0.014	No
TM04-PZM006	Shallow	11-21	bis(2-Chloroethyl)ether	7/1/2004	10	U	0.014	No
TM04-PZM006	Shallow	11-21	bis(2-Ethylhexyl)phthalate	12/3/2001	10	U	6	No
TM04-PZM006	Shallow	11-21	bis(2-Ethylhexyl)phthalate	7/1/2004	10	U	6	No
TM04-PZM006	Shallow	11-21	Bromoform	12/3/2001	1	U	0.13	No
TM04-PZM006	Shallow	11-21	Bromoform	7/1/2004	5	U	0.13	No
TM04-PZM006	Shallow	11-21	Butylbenzylphthalate	12/3/2001	10	U		No
TM04-PZM006	Shallow	11-21	Butylbenzylphthalate	7/1/2004	10	U		No
TM04-PZM006	Shallow	11-21	Cadmium	12/3/2001	0.63	U	5	No
TM04-PZM006	Shallow	11-21	Cadmium	7/1/2004	2.3		5	No
TM04-PZM006	Shallow	11-21	Cadmium, dissolved	7/1/2004	1	U	5	No
TM04-PZM006	Shallow	11-21	Calcium	12/19/2000	140,000			No
TM04-PZM006	Shallow	11-21	Carbon disulfide	12/3/2001	1	U	810	No
TM04-PZM006	Shallow	11-21	Carbon disulfide	7/1/2004	5	U	810	No
TM04-PZM006	Shallow	11-21	Carbon tetrachloride	12/3/2001	1	U	5	No
TM04-PZM006	Shallow	11-21	Carbon tetrachloride	7/1/2004	5	U	5	No
TM04-PZM006	Shallow	11-21	Chloride	10/1/2000	240,000			No
TM04-PZM006	Shallow	11-21	Chloride	12/19/2000	240,000			No
TM04-PZM006	Shallow	11-21	Chlorobenzene	12/3/2001	1	U	100	No
TM04-PZM006	Shallow	11-21	Chlorobenzene	7/1/2004	5	UL	100	No
TM04-PZM006	Shallow	11-21	Chloroethane	12/3/2001	2	UJ	21,000	No
TM04-PZM006	Shallow	11-21	Chloroethane	7/1/2004	5	U	21,000	No
TM04-PZM006	Shallow	11-21	Chloroform	12/3/2001	1	U	0.22	No
TM04-PZM006	Shallow	11-21	Chloroform	7/1/2004	5	U	0.22	No
TM04-PZM006	Shallow	11-21	Chromium	12/3/2001	2.9	B	100	No
TM04-PZM006	Shallow	11-21	Chromium	7/1/2004	9.2	U	100	No
TM04-PZM006	Shallow	11-21	Chromium, dissolved	7/1/2004	10	U	100	No
TM04-PZM006	Shallow	11-21	Chrysene	12/3/2001	10	U	25	No
TM04-PZM006	Shallow	11-21	Chrysene	7/1/2004	10	U	25	No
TM04-PZM006	Shallow	11-21	cis-1,3-Dichloropropene	12/3/2001	1	U		No
TM04-PZM006	Shallow	11-21	cis-1,3-Dichloropropene	7/1/2004	5	U		No
TM04-PZM006	Shallow	11-21	Cobalt	12/3/2001	0.86	U	6	No
TM04-PZM006	Shallow	11-21	Cobalt	7/1/2004	0.8	J	6	No
TM04-PZM006	Shallow	11-21	Cobalt, dissolved	7/1/2004	0.8	J	6	No
TM04-PZM006	Shallow	11-21	Copper	12/3/2001	0.77	U	1,300	No
TM04-PZM006	Shallow	11-21	Copper	7/1/2004	2	U	1,300	No
TM04-PZM006	Shallow	11-21	Copper, dissolved	7/1/2004	2	U	1,300	No
TM04-PZM006	Shallow	11-21	Cyanide, amenable	12/3/2001	1,900	J	200	Yes
TM04-PZM006	Shallow	11-21	Cyanide, available	7/1/2004	2	U	200	No
TM04-PZM006	Shallow	11-21	Cyanide, total	7/1/2004	95		200	No
TM04-PZM006	Shallow	11-21	Dibenz(a,h)anthracene	12/3/2001	10	U	0.025	No
TM04-PZM006	Shallow	11-21	Dibenz[a,h]anthracene	7/1/2004	10	U	0.025	No
TM04-PZM006	Shallow	11-21	Dibenzofuran	12/3/2001	10	U		No
TM04-PZM006	Shallow	11-21	Dibenzofuran	7/1/2004	10	U		No
TM04-PZM006	Shallow	11-21	Diethylphthalate	12/3/2001	10	U	15,000	No
TM04-PZM006	Shallow	11-21	Diethylphthalate	7/1/2004	10	U	15,000	No
TM04-PZM006	Shallow	11-21	Dimethylphthalate	12/3/2001	10	U		No

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TM04-PZM006	Shallow	11-21	Dimethylphthalate	7/1/2004	10	U		No
TM04-PZM006	Shallow	11-21	Di-n-butylphthalate	12/3/2001	10	U	900	No
TM04-PZM006	Shallow	11-21	Di-n-butylphthalate	7/1/2004	10	U	900	No
TM04-PZM006	Shallow	11-21	Di-n-octylphthalate	12/3/2001	10	U	200	No
TM04-PZM006	Shallow	11-21	Di-n-octylphthalate	7/1/2004	10	U	200	No
TM04-PZM006	Shallow	11-21	Ethylbenzene	12/3/2001	24		700	No
TM04-PZM006	Shallow	11-21	Ethylbenzene	7/1/2004	19		700	No
TM04-PZM006	Shallow	11-21	Fluoranthene	12/3/2001	10	U	800	No
TM04-PZM006	Shallow	11-21	Fluoranthene	7/1/2004	10	U	800	No
TM04-PZM006	Shallow	11-21	Fluorene	12/3/2001	10	U	290	No
TM04-PZM006	Shallow	11-21	Fluorene	7/1/2004	10	U	290	No
TM04-PZM006	Shallow	11-21	Hexachlorobenzene	12/3/2001	10	U	1	No
TM04-PZM006	Shallow	11-21	Hexachlorobenzene	7/1/2004	10	U	1	No
TM04-PZM006	Shallow	11-21	Hexachlorobutadiene	12/3/2001	10	U	0.14	No
TM04-PZM006	Shallow	11-21	Hexachlorobutadiene	7/1/2004	10	U	0.14	No
TM04-PZM006	Shallow	11-21	Hexachlorocyclopentadiene	12/3/2001	50	U	50	No
TM04-PZM006	Shallow	11-21	Hexachlorocyclopentadiene	7/1/2004	10	U	50	No
TM04-PZM006	Shallow	11-21	Hexachloroethane	12/3/2001	10	U	0.33	No
TM04-PZM006	Shallow	11-21	Hexachloroethane	7/1/2004	10	U	0.33	No
TM04-PZM006	Shallow	11-21	Indeno(1,2,3-cd)pyrene	12/3/2001	10	U	0.25	No
TM04-PZM006	Shallow	11-21	Indeno(1,2,3-cd)pyrene	7/1/2004	10	U	0.25	No
TM04-PZM006	Shallow	11-21	Iron	10/1/2000	300	U	14,000	No
TM04-PZM006	Shallow	11-21	Iron	12/19/2000	300		14,000	No
TM04-PZM006	Shallow	11-21	Iron	7/1/2004	210		14,000	No
TM04-PZM006	Shallow	11-21	Isophorone	12/3/2001	10	U		No
TM04-PZM006	Shallow	11-21	Isophorone	7/1/2004	10	U		No
TM04-PZM006	Shallow	11-21	Lead	12/3/2001	1.8	U	15	No
TM04-PZM006	Shallow	11-21	Lead	7/1/2004	1	U	15	No
TM04-PZM006	Shallow	11-21	Lead, dissolved	7/1/2004	1	U	15	No
TM04-PZM006	Shallow	11-21	Magnesium	12/19/2000	20,000			No
TM04-PZM006	Shallow	11-21	Manganese	12/19/2000	10		430	No
TM04-PZM006	Shallow	11-21	Mercury	12/3/2001	0.054	UL	2	No
TM04-PZM006	Shallow	11-21	Mercury	7/1/2004	0.2	U	2	No
TM04-PZM006	Shallow	11-21	Mercury, dissolved	7/1/2004	0.2	U	2	No
TM04-PZM006	Shallow	11-21	Methylene chloride	12/3/2001	2	U	5	No
TM04-PZM006	Shallow	11-21	Methylene chloride	7/1/2004	10	U	5	No
TM04-PZM006	Shallow	11-21	Naphthalene	12/3/2001	200		0.17	Yes
TM04-PZM006	Shallow	11-21	Naphthalene	7/1/2004	51		0.17	Yes
TM04-PZM006	Shallow	11-21	Nickel	12/3/2001	8.5	J	390	No
TM04-PZM006	Shallow	11-21	Nickel	7/1/2004	12		390	No
TM04-PZM006	Shallow	11-21	Nickel, dissolved	7/1/2004	12		390	No
TM04-PZM006	Shallow	11-21	Nitrobenzene	12/3/2001	10	U	0.14	No
TM04-PZM006	Shallow	11-21	Nitrobenzene	7/1/2004	10	U	0.14	No
TM04-PZM006	Shallow	11-21	Pentachloroethane	12/3/2001	50	U		No
TM04-PZM006	Shallow	11-21	Pentachloroethane	7/1/2004	50	U		No
TM04-PZM006	Shallow	11-21	Pentachlorophenol	12/3/2001	50	U	1	No
TM04-PZM006	Shallow	11-21	Pentachlorophenol	7/1/2004	50	U	1	No
TM04-PZM006	Shallow	11-21	Phenanthrene	12/3/2001	0.86	J		No
TM04-PZM006	Shallow	11-21	Phenanthrene	7/1/2004	10	U		No
TM04-PZM006	Shallow	11-21	Phenol	12/3/2001	2.1	J	5,800	No
TM04-PZM006	Shallow	11-21	Phenol	7/1/2004	28		5,800	No

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TM04-PZM006	Shallow	11-21	Potassium	12/19/2000	110,000			No
TM04-PZM006	Shallow	11-21	Pyrene	12/3/2001	10	U	120	No
TM04-PZM006	Shallow	11-21	Pyrene	7/1/2004	10	U	120	No
TM04-PZM006	Shallow	11-21	Pyridine	12/3/2001	20	U		No
TM04-PZM006	Shallow	11-21	Pyridine	7/1/2004	20	U		No
TM04-PZM006	Shallow	11-21	Selenium	12/3/2001	3.2	U	50	No
TM04-PZM006	Shallow	11-21	Selenium	7/1/2004	5	U	50	No
TM04-PZM006	Shallow	11-21	Selenium, dissolved	7/1/2004	5	U	50	No
TM04-PZM006	Shallow	11-21	Silver	12/3/2001	1.3	B	94	No
TM04-PZM006	Shallow	11-21	Silver	7/1/2004	5	U	94	No
TM04-PZM006	Shallow	11-21	Silver, dissolved	7/1/2004	5	U	94	No
TM04-PZM006	Shallow	11-21	Sodium	12/19/2000	130,000			No
TM04-PZM006	Shallow	11-21	Sulfate	10/1/2000	600,000			No
TM04-PZM006	Shallow	11-21	Sulfate	12/19/2000	600,000			No
TM04-PZM006	Shallow	11-21	Sulfide	12/3/2001	1,000			No
TM04-PZM006	Shallow	11-21	Sulfide	7/1/2004	1,400	L		No
TM04-PZM006	Shallow	11-21	Tetrachloroethene	12/3/2001	1	U	5	No
TM04-PZM006	Shallow	11-21	Tetrachloroethene	7/1/2004	1	UL	5	No
TM04-PZM006	Shallow	11-21	Thallium	12/3/2001	5.7	U	2	No
TM04-PZM006	Shallow	11-21	Thallium	7/1/2004	1	U	2	No
TM04-PZM006	Shallow	11-21	Thallium, dissolved	7/1/2004	1	U	2	No
TM04-PZM006	Shallow	11-21	Tin	12/3/2001	28.8	U		No
TM04-PZM006	Shallow	11-21	Tin	7/1/2004	360			No
TM04-PZM006	Shallow	11-21	Tin, dissolved	7/1/2004	380			No
TM04-PZM006	Shallow	11-21	Toluene	12/3/2001	9.9		1,000	No
TM04-PZM006	Shallow	11-21	Toluene	7/1/2004	6.1		1,000	No
TM04-PZM006	Shallow	11-21	Total dissolved solids (TDS)	12/19/2000	1,200,000			No
TM04-PZM006	Shallow	11-21	trans-1,2-Dichloroethene	12/3/2001	1	U	100	No
TM04-PZM006	Shallow	11-21	trans-1,2-Dichloroethene	7/1/2004	5	U	100	No
TM04-PZM006	Shallow	11-21	trans-1,3-Dichloropropene	12/3/2001	1	U		No
TM04-PZM006	Shallow	11-21	trans-1,3-Dichloropropene	7/1/2004	5	U		No
TM04-PZM006	Shallow	11-21	Trichloroethene	12/3/2001	1	U	5	No
TM04-PZM006	Shallow	11-21	Trichloroethene	7/1/2004	1	UL	5	No
TM04-PZM006	Shallow	11-21	Vanadium	12/3/2001	15.8	J	86	No
TM04-PZM006	Shallow	11-21	Vanadium	7/1/2004	5	U	86	No
TM04-PZM006	Shallow	11-21	Vanadium, dissolved	7/1/2004	5	U	86	No
TM04-PZM006	Shallow	11-21	Vinyl chloride	12/3/2001	3.6		2	Yes
TM04-PZM006	Shallow	11-21	Vinyl chloride	7/1/2004	5	U	2	No
TM04-PZM006	Shallow	11-21	Xylene, total	12/3/2001	47		10,000	No
TM04-PZM006	Shallow	11-21	Xylenes	7/1/2004	42		10,000	No
TM04-PZM006	Shallow	11-21	Zinc	12/3/2001	2.5	J	6,000	No
TM04-PZM006	Shallow	11-21	Zinc	7/1/2004	10	U	6,000	No
TM04-PZM006	Shallow	11-21	Zinc, dissolved	7/1/2004	10	U	6,000	No
TM04-PZM028	Intermediate	35.5-45.5	1,1,1,2-Tetrachloroethane	12/3/2001	50	U		No
TM04-PZM028	Intermediate	35.5-45.5	1,1,1-Trichloroethane	12/3/2001	50	U	200	No
TM04-PZM028	Intermediate	35.5-45.5	1,1,2,2-Tetrachloroethane	12/3/2001	50	U	0.076	No
TM04-PZM028	Intermediate	35.5-45.5	1,1,2-Trichloroethane	12/3/2001	50	U	5	No
TM04-PZM028	Intermediate	35.5-45.5	1,1-Dichloroethane	12/3/2001	50	U	2.7	No
TM04-PZM028	Intermediate	35.5-45.5	1,1-Dichloroethene	12/3/2001	50	U	7	No
TM04-PZM028	Intermediate	35.5-45.5	1,2,4-Trichlorobenzene	12/3/2001	10	U	70	No
TM04-PZM028	Intermediate	35.5-45.5	1,2-Dichlorobenzene	12/3/2001	10	U	600	No

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TM04-PZM028	Intermediate	35.5-45.5	1,2-Dichloroethane	12/3/2001	50	U	5	No
TM04-PZM028	Intermediate	35.5-45.5	1,2-Dichloropropane	12/3/2001	50	U	5	No
TM04-PZM028	Intermediate	35.5-45.5	1,3-Dichlorobenzene	12/3/2001	10	U		No
TM04-PZM028	Intermediate	35.5-45.5	1,4-Dichlorobenzene	12/3/2001	10	U	75	No
TM04-PZM028	Intermediate	35.5-45.5	2,2'-Oxybis(1-chloropropane)	12/3/2001	20	U	0.36	No
TM04-PZM028	Intermediate	35.5-45.5	2,4,5-Trichlorophenol	12/3/2001	10	U	1,200	No
TM04-PZM028	Intermediate	35.5-45.5	2,4,6-Trichlorophenol	12/3/2001	10	U	4	No
TM04-PZM028	Intermediate	35.5-45.5	2,4-Dichlorophenol	12/3/2001	10	U	46	No
TM04-PZM028	Intermediate	35.5-45.5	2,4-Dimethylphenol	12/3/2001	41		360	No
TM04-PZM028	Intermediate	35.5-45.5	2,4-Dinitrophenol	12/3/2001	50	U	39	No
TM04-PZM028	Intermediate	35.5-45.5	2,4-Dinitrotoluene	12/3/2001	10	U	0.24	No
TM04-PZM028	Intermediate	35.5-45.5	2,6-Dinitrotoluene	12/3/2001	10	U	0.048	No
TM04-PZM028	Intermediate	35.5-45.5	2-Butanone (MEK)	12/3/2001	250	U	5,600	No
TM04-PZM028	Intermediate	35.5-45.5	2-Chloronaphthalene	12/3/2001	10	U	750	No
TM04-PZM028	Intermediate	35.5-45.5	2-Chlorophenol	12/3/2001	10	U	91	No
TM04-PZM028	Intermediate	35.5-45.5	2-Hexanone	12/3/2001	250	U	38	No
TM04-PZM028	Intermediate	35.5-45.5	2-Methylnaphthalene	12/3/2001	1.9	J	36	No
TM04-PZM028	Intermediate	35.5-45.5	2-Methylphenol	12/3/2001	10	U	930	No
TM04-PZM028	Intermediate	35.5-45.5	2-Nitrophenol	12/3/2001	10	U	190	No
TM04-PZM028	Intermediate	35.5-45.5	3-&4-Methylphenol	10/1/2001	10	U	930	No
TM04-PZM028	Intermediate	35.5-45.5	3,3'-Dichlorobenzidine	12/3/2001	50	U	0.12	No
TM04-PZM028	Intermediate	35.5-45.5	3,3'-Dimethylbenzidine	12/3/2001	50	U		No
TM04-PZM028	Intermediate	35.5-45.5	4,6-Dinitro-2-methylphenol	12/3/2001	50	U		No
TM04-PZM028	Intermediate	35.5-45.5	4-Bromophenyl-phenylether	12/3/2001	10	U		No
TM04-PZM028	Intermediate	35.5-45.5	4-Chloro-3-methylphenol	12/3/2001	10	U		No
TM04-PZM028	Intermediate	35.5-45.5	4-Chlorophenyl-phenylether	12/3/2001	10	U		No
TM04-PZM028	Intermediate	35.5-45.5	4-Methyl-2-pentanone (MIBK)	12/3/2001	250	U	1,200	No
TM04-PZM028	Intermediate	35.5-45.5	4-Methylphenol	12/3/2001	10	U	930	No
TM04-PZM028	Intermediate	35.5-45.5	4-Nitrophenol	12/3/2001	50	U		No
TM04-PZM028	Intermediate	35.5-45.5	Acenaphthene	12/3/2001	1.2	J	530	No
TM04-PZM028	Intermediate	35.5-45.5	Acenaphthylene	12/3/2001	1.8	J	530	No
TM04-PZM028	Intermediate	35.5-45.5	Acetone	12/3/2001	500	U	14,000	No
TM04-PZM028	Intermediate	35.5-45.5	Anthracene	12/3/2001	10	U	1,800	No
TM04-PZM028	Intermediate	35.5-45.5	Antimony	12/3/2001	4.1	U	6	No
TM04-PZM028	Intermediate	35.5-45.5	Aroclor-1016	12/3/2001	1	U		No
TM04-PZM028	Intermediate	35.5-45.5	Aroclor-1221	12/3/2001	1	U		No
TM04-PZM028	Intermediate	35.5-45.5	Aroclor-1232	12/3/2001	1	U		No
TM04-PZM028	Intermediate	35.5-45.5	Aroclor-1242	12/3/2001	1	U		No
TM04-PZM028	Intermediate	35.5-45.5	Aroclor-1248	12/3/2001	1	U		No
TM04-PZM028	Intermediate	35.5-45.5	Aroclor-1254	12/3/2001	1	U		No
TM04-PZM028	Intermediate	35.5-45.5	Aroclor-1260	12/3/2001	1	U		No
TM04-PZM028	Intermediate	35.5-45.5	Arsenic	12/3/2001	2.2	J	10	No
TM04-PZM028	Intermediate	35.5-45.5	Barium	12/3/2001	28.9	J	2,000	No
TM04-PZM028	Intermediate	35.5-45.5	Benz(a)anthracene	12/3/2001	10	U	0.0298	No
TM04-PZM028	Intermediate	35.5-45.5	Benzene	12/3/2001	1,200		5	Yes
TM04-PZM028	Intermediate	35.5-45.5	Benzo(a)pyrene	12/3/2001	10	U	0.2	No
TM04-PZM028	Intermediate	35.5-45.5	Benzo(b)fluoranthene	12/3/2001	10	U	0.25	No
TM04-PZM028	Intermediate	35.5-45.5	Benzo(g,h,i)perylene	12/3/2001	10	U		No
TM04-PZM028	Intermediate	35.5-45.5	Benzo(k)fluoranthene	12/3/2001	10	U	2.5	No
TM04-PZM028	Intermediate	35.5-45.5	Beryllium	12/3/2001	1.2	B	4	No
TM04-PZM028	Intermediate	35.5-45.5	Bicarbonate	12/19/2000	1,000	U		No

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TM04-PZM028	Intermediate	35.5-45.5	bis(2-Chloroethoxy)methane	12/3/2001	10	U	59	No
TM04-PZM028	Intermediate	35.5-45.5	bis(2-Chloroethyl)ether	12/3/2001	10	U	0.014	No
TM04-PZM028	Intermediate	35.5-45.5	bis(2-Ethylhexyl)phthalate	12/3/2001	10	U	6	No
TM04-PZM028	Intermediate	35.5-45.5	Bromoform	12/3/2001	50	U	0.13	No
TM04-PZM028	Intermediate	35.5-45.5	Butylbenzylphthalate	12/3/2001	10	U		No
TM04-PZM028	Intermediate	35.5-45.5	Cadmium	12/3/2001	0.63	U	5	No
TM04-PZM028	Intermediate	35.5-45.5	Calcium	12/19/2000	140,000			No
TM04-PZM028	Intermediate	35.5-45.5	Carbon disulfide	12/3/2001	50	U	810	No
TM04-PZM028	Intermediate	35.5-45.5	Carbon tetrachloride	12/3/2001	50	U	5	No
TM04-PZM028	Intermediate	35.5-45.5	Chloride	12/19/2000	240,000			No
TM04-PZM028	Intermediate	35.5-45.5	Chlorobenzene	12/3/2001	50	U	100	No
TM04-PZM028	Intermediate	35.5-45.5	Chloroethane	12/3/2001	100	UJ	21,000	No
TM04-PZM028	Intermediate	35.5-45.5	Chloroform	12/3/2001	50	U	0.22	No
TM04-PZM028	Intermediate	35.5-45.5	Chromium	12/3/2001	1.2	B	100	No
TM04-PZM028	Intermediate	35.5-45.5	Chrysene	12/3/2001	10	U	25	No
TM04-PZM028	Intermediate	35.5-45.5	cis-1,3-Dichloropropene	12/3/2001	50	U		No
TM04-PZM028	Intermediate	35.5-45.5	Cobalt	12/3/2001	0.86	U	6	No
TM04-PZM028	Intermediate	35.5-45.5	Copper	12/3/2001	0.77	U	1,300	No
TM04-PZM028	Intermediate	35.5-45.5	Cyanide, amenable	12/3/2001	2,600	J	200	Yes
TM04-PZM028	Intermediate	35.5-45.5	Dibenz(a,h)anthracene	12/3/2001	10	U	0.025	No
TM04-PZM028	Intermediate	35.5-45.5	Dibenzofuran	12/3/2001	0.72	J		No
TM04-PZM028	Intermediate	35.5-45.5	Diethylphthalate	12/3/2001	10	U	15,000	No
TM04-PZM028	Intermediate	35.5-45.5	Dimethylphthalate	12/3/2001	10	U		No
TM04-PZM028	Intermediate	35.5-45.5	Di-n-butylphthalate	12/3/2001	10	U	900	No
TM04-PZM028	Intermediate	35.5-45.5	Di-n-octylphthalate	12/3/2001	10	U	200	No
TM04-PZM028	Intermediate	35.5-45.5	Ethylbenzene	12/3/2001	28	J	700	No
TM04-PZM028	Intermediate	35.5-45.5	Fluoranthene	12/3/2001	10	U	800	No
TM04-PZM028	Intermediate	35.5-45.5	Fluorene	12/3/2001	1.1	J	290	No
TM04-PZM028	Intermediate	35.5-45.5	Hexachlorobenzene	12/3/2001	10	U	1	No
TM04-PZM028	Intermediate	35.5-45.5	Hexachlorobutadiene	12/3/2001	10	U	0.14	No
TM04-PZM028	Intermediate	35.5-45.5	Hexachlorocyclopentadiene	12/3/2001	50	U	50	No
TM04-PZM028	Intermediate	35.5-45.5	Hexachloroethane	12/3/2001	10	U	0.33	No
TM04-PZM028	Intermediate	35.5-45.5	Indeno(1,2,3-cd)pyrene	12/3/2001	10	U	0.25	No
TM04-PZM028	Intermediate	35.5-45.5	Iron	12/19/2000	100	U	14,000	No
TM04-PZM028	Intermediate	35.5-45.5	Isophorone	12/3/2001	10	U		No
TM04-PZM028	Intermediate	35.5-45.5	Lead	12/3/2001	1.8	U	15	No
TM04-PZM028	Intermediate	35.5-45.5	Magnesium	12/19/2000	13,000			No
TM04-PZM028	Intermediate	35.5-45.5	Manganese	12/19/2000	10	U	430	No
TM04-PZM028	Intermediate	35.5-45.5	Mercury	12/3/2001	0.054	UL	2	No
TM04-PZM028	Intermediate	35.5-45.5	Methylene chloride	12/3/2001	100	U	5	No
TM04-PZM028	Intermediate	35.5-45.5	Naphthalene	12/3/2001	150		0.17	Yes
TM04-PZM028	Intermediate	35.5-45.5	Nickel	12/3/2001	6	J	390	No
TM04-PZM028	Intermediate	35.5-45.5	Nitrobenzene	12/3/2001	10	U	0.14	No
TM04-PZM028	Intermediate	35.5-45.5	Pentachloroethane	12/3/2001	50	U		No
TM04-PZM028	Intermediate	35.5-45.5	Pentachlorophenol	12/3/2001	50	U	1	No
TM04-PZM028	Intermediate	35.5-45.5	Phenanthrene	12/3/2001	1.2	J		No
TM04-PZM028	Intermediate	35.5-45.5	Phenol	12/3/2001	3.6	J	5,800	No
TM04-PZM028	Intermediate	35.5-45.5	Potassium	12/19/2000	120,000			No
TM04-PZM028	Intermediate	35.5-45.5	Pyrene	12/3/2001	10	U	120	No
TM04-PZM028	Intermediate	35.5-45.5	Pyridine	12/3/2001	20	U		No
TM04-PZM028	Intermediate	35.5-45.5	Selenium	12/3/2001	3.2	U	50	No

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TM04-PZM028	Intermediate	35.5-45.5	Silver	12/3/2001	0.75	U	94	No
TM04-PZM028	Intermediate	35.5-45.5	Sulfate	12/19/2000	640,000			No
TM04-PZM028	Intermediate	35.5-45.5	Sulfide	12/3/2001	1,000			No
TM04-PZM028	Intermediate	35.5-45.5	Tetrachloroethene	12/3/2001	50	U	5	No
TM04-PZM028	Intermediate	35.5-45.5	Thallium	12/3/2001	5.7	U	2	No
TM04-PZM028	Intermediate	35.5-45.5	Tin	12/3/2001	28.8	U		No
TM04-PZM028	Intermediate	35.5-45.5	Toluene	12/3/2001	24	J	1,000	No
TM04-PZM028	Intermediate	35.5-45.5	Total dissolved solids (TDS)	12/19/2000	1,200,000			No
TM04-PZM028	Intermediate	35.5-45.5	trans-1,2-Dichloroethene	12/3/2001	50	U	100	No
TM04-PZM028	Intermediate	35.5-45.5	trans-1,3-Dichloropropene	12/3/2001	50	U		No
TM04-PZM028	Intermediate	35.5-45.5	Trichloroethene	12/3/2001	50	U	5	No
TM04-PZM028	Intermediate	35.5-45.5	Vanadium	12/3/2001	5.5	J	86	No
TM04-PZM028	Intermediate	35.5-45.5	Vinyl chloride	12/3/2001	100	U	2	No
TM04-PZM028	Intermediate	35.5-45.5	Xylene, total	12/3/2001	86	J	10,000	No
TM04-PZM028	Intermediate	35.5-45.5	Zinc	12/3/2001	3.6	J	6,000	No
TM04-PZM056	Lower	57-67	1,1,1,2-Tetrachloroethane	12/3/2001	5	U		No
TM04-PZM056	Lower	57-67	1,1,1-Trichloroethane	12/3/2001	5	U	200	No
TM04-PZM056	Lower	57-67	1,1,2,2-Tetrachloroethane	12/3/2001	5	U	0.076	No
TM04-PZM056	Lower	57-67	1,1,2-Trichloroethane	12/3/2001	5	U	5	No
TM04-PZM056	Lower	57-67	1,1-Dichloroethane	12/3/2001	5	U	2.7	No
TM04-PZM056	Lower	57-67	1,1-Dichloroethene	12/3/2001	5	U	7	No
TM04-PZM056	Lower	57-67	1,2,4-Trichlorobenzene	12/3/2001	10	U	70	No
TM04-PZM056	Lower	57-67	1,2-Dichlorobenzene	12/3/2001	10	U	600	No
TM04-PZM056	Lower	57-67	1,2-Dichloroethane	12/3/2001	5	U	5	No
TM04-PZM056	Lower	57-67	1,2-Dichloropropane	12/3/2001	5	U	5	No
TM04-PZM056	Lower	57-67	1,3-Dichlorobenzene	12/3/2001	10	U		No
TM04-PZM056	Lower	57-67	1,4-Dichlorobenzene	12/3/2001	10	U	75	No
TM04-PZM056	Lower	57-67	2,2'-Oxybis(1-chloropropane)	12/3/2001	20	U	0.36	No
TM04-PZM056	Lower	57-67	2,4,5-Trichlorophenol	12/3/2001	10	U	1,200	No
TM04-PZM056	Lower	57-67	2,4,6-Trichlorophenol	12/3/2001	10	U	4	No
TM04-PZM056	Lower	57-67	2,4-Dichlorophenol	12/3/2001	10	U	46	No
TM04-PZM056	Lower	57-67	2,4-Dimethylphenol	12/3/2001	4.4	J	360	No
TM04-PZM056	Lower	57-67	2,4-Dinitrophenol	12/3/2001	50	U	39	No
TM04-PZM056	Lower	57-67	2,4-Dinitrotoluene	12/3/2001	10	U	0.24	No
TM04-PZM056	Lower	57-67	2,6-Dinitrotoluene	12/3/2001	10	U	0.048	No
TM04-PZM056	Lower	57-67	2-Butanone (MEK)	12/3/2001	25	U	5,600	No
TM04-PZM056	Lower	57-67	2-Chloronaphthalene	12/3/2001	10	U	750	No
TM04-PZM056	Lower	57-67	2-Chlorophenol	12/3/2001	10	U	91	No
TM04-PZM056	Lower	57-67	2-Hexanone	12/3/2001	25	U	38	No
TM04-PZM056	Lower	57-67	2-Methylnaphthalene	12/3/2001	10	U	36	No
TM04-PZM056	Lower	57-67	2-Methylphenol	12/3/2001	10	U	930	No
TM04-PZM056	Lower	57-67	2-Nitrophenol	12/3/2001	10	U	190	No
TM04-PZM056	Lower	57-67	3-&4-Methylphenol	10/1/2001	10	U	930	No
TM04-PZM056	Lower	57-67	3,3'-Dichlorobenzidine	12/3/2001	50	U	0.12	No
TM04-PZM056	Lower	57-67	3,3'-Dimethylbenzidine	12/3/2001	50	U		No
TM04-PZM056	Lower	57-67	4,6-Dinitro-2-methylphenol	12/3/2001	50	U		No
TM04-PZM056	Lower	57-67	4-Bromophenyl-phenylether	12/3/2001	10	U		No
TM04-PZM056	Lower	57-67	4-Chloro-3-methylphenol	12/3/2001	10	U		No
TM04-PZM056	Lower	57-67	4-Chlorophenyl-phenylether	12/3/2001	10	U		No
TM04-PZM056	Lower	57-67	4-Methyl-2-pentanone (MIBK)	12/3/2001	25	U	1,200	No
TM04-PZM056	Lower	57-67	4-Methylphenol	12/3/2001	10	U	930	No



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TM04-PZM056	Lower	57-67	4-Nitrophenol	12/3/2001	50	U		No
TM04-PZM056	Lower	57-67	Acenaphthene	12/3/2001	10	U	530	No
TM04-PZM056	Lower	57-67	Acenaphthylene	12/3/2001	10	U	530	No
TM04-PZM056	Lower	57-67	Acetone	12/3/2001	50	U	14,000	No
TM04-PZM056	Lower	57-67	Anthracene	12/3/2001	10	U	1,800	No
TM04-PZM056	Lower	57-67	Antimony	12/3/2001	4.1	U	6	No
TM04-PZM056	Lower	57-67	Aroclor-1016	12/3/2001	1	U		No
TM04-PZM056	Lower	57-67	Aroclor-1221	12/3/2001	1	U		No
TM04-PZM056	Lower	57-67	Aroclor-1232	12/3/2001	1	U		No
TM04-PZM056	Lower	57-67	Aroclor-1242	12/3/2001	1	U		No
TM04-PZM056	Lower	57-67	Aroclor-1248	12/3/2001	1	U		No
TM04-PZM056	Lower	57-67	Aroclor-1254	12/3/2001	1	U		No
TM04-PZM056	Lower	57-67	Aroclor-1260	12/3/2001	1	U		No
TM04-PZM056	Lower	57-67	Arsenic	12/3/2001	2	U	10	No
TM04-PZM056	Lower	57-67	Barium	12/3/2001	601		2,000	No
TM04-PZM056	Lower	57-67	Benz(a)anthracene	12/3/2001	10	U	0.0298	No
TM04-PZM056	Lower	57-67	Benzene	12/3/2001	130		5	Yes
TM04-PZM056	Lower	57-67	Benzo(a)pyrene	12/3/2001	10	U	0.2	No
TM04-PZM056	Lower	57-67	Benzo(b)fluoranthene	12/3/2001	10	U	0.25	No
TM04-PZM056	Lower	57-67	Benzo(g,h,i)perylene	12/3/2001	10	U		No
TM04-PZM056	Lower	57-67	Benzo(k)fluoranthene	12/3/2001	10	U	2.5	No
TM04-PZM056	Lower	57-67	Beryllium	12/3/2001	1.5	B	4	No
TM04-PZM056	Lower	57-67	Bicarbonate	12/3/2001	163,000			No
TM04-PZM056	Lower	57-67	bis(2-Chloroethoxy)methane	12/3/2001	10	U	59	No
TM04-PZM056	Lower	57-67	bis(2-Chloroethyl)ether	12/3/2001	10	U	0.014	No
TM04-PZM056	Lower	57-67	bis(2-Ethylhexyl)phthalate	12/3/2001	10	U	6	No
TM04-PZM056	Lower	57-67	Bromoform	12/3/2001	5	U	0.13	No
TM04-PZM056	Lower	57-67	Butylbenzylphthalate	12/3/2001	10	U		No
TM04-PZM056	Lower	57-67	Cadmium	12/3/2001	0.74	J	5	No
TM04-PZM056	Lower	57-67	Calcium	12/3/2001	121,000			No
TM04-PZM056	Lower	57-67	Carbon disulfide	12/3/2001	5	U	810	No
TM04-PZM056	Lower	57-67	Carbon tetrachloride	12/3/2001	5	U	5	No
TM04-PZM056	Lower	57-67	Chloride	12/3/2001	1,900,000			No
TM04-PZM056	Lower	57-67	Chlorobenzene	12/3/2001	5	U	100	No
TM04-PZM056	Lower	57-67	Chloroethane	12/3/2001	10	UJ	21,000	No
TM04-PZM056	Lower	57-67	Chloroform	12/3/2001	5	U	0.22	No
TM04-PZM056	Lower	57-67	Chromium	12/3/2001	6.4		100	No
TM04-PZM056	Lower	57-67	Chrysene	12/3/2001	10	U	25	No
TM04-PZM056	Lower	57-67	cis-1,3-Dichloropropene	12/3/2001	5	U		No
TM04-PZM056	Lower	57-67	Cobalt	12/3/2001	0.86	U	6	No
TM04-PZM056	Lower	57-67	Copper	12/3/2001	0.77	U	1,300	No
TM04-PZM056	Lower	57-67	Cyanide, amenable	10/1/2001	130.000	J	200	No
TM04-PZM056	Lower	57-67	Cyanide, amenable	12/3/2001	130	J	200	No
TM04-PZM056	Lower	57-67	Dibenz(a,h)anthracene	12/3/2001	10	U	0.025	No
TM04-PZM056	Lower	57-67	Dibenzofuran	12/3/2001	10	U		No
TM04-PZM056	Lower	57-67	Diethylphthalate	12/3/2001	10	U	15,000	No
TM04-PZM056	Lower	57-67	Dimethylphthalate	12/3/2001	10	U		No
TM04-PZM056	Lower	57-67	Di-n-butylphthalate	12/3/2001	10	U	900	No
TM04-PZM056	Lower	57-67	Di-n-octylphthalate	12/3/2001	10	U	200	No
TM04-PZM056	Lower	57-67	Ethylbenzene	12/3/2001	1.3	J	700	No
TM04-PZM056	Lower	57-67	Fluoranthene	12/3/2001	10	U	800	No

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TM04-PZM056	Lower	57-67	Fluorene	12/3/2001	10	U	290	No
TM04-PZM056	Lower	57-67	Hexachlorobenzene	12/3/2001	10	U	1	No
TM04-PZM056	Lower	57-67	Hexachlorobutadiene	12/3/2001	10	U	0.14	No
TM04-PZM056	Lower	57-67	Hexachlorocyclopentadiene	12/3/2001	50	U	50	No
TM04-PZM056	Lower	57-67	Hexachloroethane	12/3/2001	10	U	0.33	No
TM04-PZM056	Lower	57-67	Indeno(1,2,3-cd)pyrene	12/3/2001	10	U	0.25	No
TM04-PZM056	Lower	57-67	Iron	12/3/2001	119,000	L	14,000	Yes
TM04-PZM056	Lower	57-67	Isophorone	12/3/2001	10	U		No
TM04-PZM056	Lower	57-67	Lead	12/3/2001	1.8	U	15	No
TM04-PZM056	Lower	57-67	Magnesium	12/3/2001	105,000			No
TM04-PZM056	Lower	57-67	Manganese	12/3/2001	6,260		430	Yes
TM04-PZM056	Lower	57-67	Mercury	12/3/2001	0.06	L	2	No
TM04-PZM056	Lower	57-67	Methylene chloride	12/3/2001	10	U	5	No
TM04-PZM056	Lower	57-67	Naphthalene	12/3/2001	20		0.17	Yes
TM04-PZM056	Lower	57-67	Nickel	12/3/2001	2.9	B	390	No
TM04-PZM056	Lower	57-67	Nitrobenzene	12/3/2001	10	U	0.14	No
TM04-PZM056	Lower	57-67	Pentachloroethane	12/3/2001	50	U		No
TM04-PZM056	Lower	57-67	Pentachlorophenol	12/3/2001	50	U	1	No
TM04-PZM056	Lower	57-67	Phenanthrene	12/3/2001	10	U		No
TM04-PZM056	Lower	57-67	Phenol	12/3/2001	9.6	J	5,800	No
TM04-PZM056	Lower	57-67	Potassium	12/3/2001	25,800			No
TM04-PZM056	Lower	57-67	Pyrene	12/3/2001	10	U	120	No
TM04-PZM056	Lower	57-67	Pyridine	12/3/2001	20	U		No
TM04-PZM056	Lower	57-67	Selenium	12/3/2001	3.2	U	50	No
TM04-PZM056	Lower	57-67	Silver	12/3/2001	0.75	U	94	No
TM04-PZM056	Lower	57-67	Sodium	12/3/2001	909,000			No
TM04-PZM056	Lower	57-67	Sulfate	12/3/2001	38,600			No
TM04-PZM056	Lower	57-67	Sulfide	12/3/2001	1,000			No
TM04-PZM056	Lower	57-67	Tetrachloroethene	12/3/2001	5	U	5	No
TM04-PZM056	Lower	57-67	Thallium	12/3/2001	13.2		2	Yes
TM04-PZM056	Lower	57-67	Tin	12/3/2001	28.8	U		No
TM04-PZM056	Lower	57-67	Toluene	12/3/2001	5	U	1,000	No
TM04-PZM056	Lower	57-67	trans-1,2-Dichloroethene	12/3/2001	5	U	100	No
TM04-PZM056	Lower	57-67	trans-1,3-Dichloropropene	12/3/2001	5	U		No
TM04-PZM056	Lower	57-67	Trichloroethene	12/3/2001	5	U	5	No
TM04-PZM056	Lower	57-67	Vanadium	12/3/2001	23.7	J	86	No
TM04-PZM056	Lower	57-67	Vinyl chloride	12/3/2001	10	U	2	No
TM04-PZM056	Lower	57-67	Xylene, total	12/3/2001	5.2	J	10,000	No
TM04-PZM056	Lower	57-67	Zinc	12/3/2001	3.3	J	6,000	No
TM04-PZM082	Lower	TD = 92	1,1,1,2-Tetrachloroethane	7/1/2004	1	U		No
TM04-PZM082	Lower	TD = 92	1,1,1-Trichloroethane	10/1/2002	1	U	200	No
TM04-PZM082	Lower	TD = 92	1,1,1-Trichloroethane	7/1/2004	1	U	200	No
TM04-PZM082	Lower	TD = 92	1,1,2,2-Tetrachloroethane	7/1/2004	1	U	0.076	No
TM04-PZM082	Lower	TD = 92	1,1,2-Trichloroethane	7/1/2004	1	U	5	No
TM04-PZM082	Lower	TD = 92	1,1-Dichloroethane	10/1/2002	1	U	2.7	No
TM04-PZM082	Lower	TD = 92	1,1-Dichloroethane	7/1/2004	1	U	2.7	No
TM04-PZM082	Lower	TD = 92	1,1-Dichloroethene	10/1/2002	1	U	7	No
TM04-PZM082	Lower	TD = 92	1,1-Dichloroethene	7/1/2004	1	U	7	No
TM04-PZM082	Lower	TD = 92	1,2,4-Trichlorobenzene	7/1/2004	10	U	70	No
TM04-PZM082	Lower	TD = 92	1,2-Dichlorobenzene	7/1/2004	10	U	600	No
TM04-PZM082	Lower	TD = 92	1,2-Dichloroethane	10/1/2002	1	U	5	No

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TM04-PZM082	Lower	TD = 92	1,2-Dichloroethane	7/1/2004	1	U	5	No
TM04-PZM082	Lower	TD = 92	1,2-Dichloropropane	7/1/2004	1	U	5	No
TM04-PZM082	Lower	TD = 92	1,3-Dichlorobenzene	7/1/2004	10	U		No
TM04-PZM082	Lower	TD = 92	1,4-Dichlorobenzene	7/1/2004	10	U	75	No
TM04-PZM082	Lower	TD = 92	2,4,5-Trichlorophenol	7/1/2004	10	U	1,200	No
TM04-PZM082	Lower	TD = 92	2,4,6-Trichlorophenol	7/1/2004	10	U	4	No
TM04-PZM082	Lower	TD = 92	2,4-Dichlorophenol	7/1/2004	10	U	46	No
TM04-PZM082	Lower	TD = 92	2,4-Dimethylphenol	7/1/2004	10	U	360	No
TM04-PZM082	Lower	TD = 92	2,4-Dinitrophenol	7/1/2004	50	U	39	No
TM04-PZM082	Lower	TD = 92	2,4-Dinitrotoluene	7/1/2004	10	U	0.24	No
TM04-PZM082	Lower	TD = 92	2,6-Dinitrotoluene	7/1/2004	10	U	0.048	No
TM04-PZM082	Lower	TD = 92	2-Butanone (MEK)	7/1/2004	5	U	5,600	No
TM04-PZM082	Lower	TD = 92	2-Chloronaphthalene	7/1/2004	10	U	750	No
TM04-PZM082	Lower	TD = 92	2-Chlorophenol	7/1/2004	10	U	91	No
TM04-PZM082	Lower	TD = 92	2-Hexanone	7/1/2004	5	U	38	No
TM04-PZM082	Lower	TD = 92	2-Methylnaphthalene	7/1/2004	10	U	36	No
TM04-PZM082	Lower	TD = 92	2-Methylphenol	7/1/2004	10	U	930	No
TM04-PZM082	Lower	TD = 92	2-Nitrophenol	7/1/2004	10	U	190	No
TM04-PZM082	Lower	TD = 92	3-&4-Methylphenol	7/1/2004	10	U	930	No
TM04-PZM082	Lower	TD = 92	3,3'-Dichlorobenzidine	7/1/2004	20	U	0.12	No
TM04-PZM082	Lower	TD = 92	3,3'-Dimethylbenzidine	7/1/2004	50	U		No
TM04-PZM082	Lower	TD = 92	4,6-Dinitro-2-methylphenol	7/1/2004	50	U		No
TM04-PZM082	Lower	TD = 92	4-Bromophenyl-phenylether	7/1/2004	10	U		No
TM04-PZM082	Lower	TD = 92	4-Chloro-3-methylphenol	7/1/2004	10	U		No
TM04-PZM082	Lower	TD = 92	4-Chlorophenyl-phenylether	7/1/2004	10	U		No
TM04-PZM082	Lower	TD = 92	4-Methyl-2-pentanone (MIBK)	7/1/2004	5	U	1,200	No
TM04-PZM082	Lower	TD = 92	4-Nitrophenol	7/1/2004	50	U		No
TM04-PZM082	Lower	TD = 92	Acenaphthene	7/1/2004	10	U	530	No
TM04-PZM082	Lower	TD = 92	Acenaphthylene	7/1/2004	10	U	530	No
TM04-PZM082	Lower	TD = 92	Acetone	7/1/2004	5	U	14,000	No
TM04-PZM082	Lower	TD = 92	Anthracene	7/1/2004	10	U	1,800	No
TM04-PZM082	Lower	TD = 92	Antimony	7/1/2004	2.1		6	No
TM04-PZM082	Lower	TD = 92	Antimony, dissolved	7/1/2004	2	U	6	No
TM04-PZM082	Lower	TD = 92	Arsenic	7/1/2004	5	U	10	No
TM04-PZM082	Lower	TD = 92	Arsenic, dissolved	7/1/2004	3	J	10	No
TM04-PZM082	Lower	TD = 92	Barium	7/1/2004	110		2,000	No
TM04-PZM082	Lower	TD = 92	Barium, dissolved	7/1/2004	98		2,000	No
TM04-PZM082	Lower	TD = 92	Benz(a)anthracene	7/1/2004	10	U	0.0298	No
TM04-PZM082	Lower	TD = 92	Benzene	10/1/2002	83		5	Yes
TM04-PZM082	Lower	TD = 92	Benzene	7/1/2004	11		5	Yes
TM04-PZM082	Lower	TD = 92	Benzo(a)pyrene	7/1/2004	10	U	0.2	No
TM04-PZM082	Lower	TD = 92	Benzo(b)fluoranthene	7/1/2004	10	U	0.25	No
TM04-PZM082	Lower	TD = 92	Benzo(g,h,i)perylene	7/1/2004	10	U		No
TM04-PZM082	Lower	TD = 92	Benzo(k)fluoranthene	7/1/2004	10	U	2.5	No
TM04-PZM082	Lower	TD = 92	Beryllium	7/1/2004	1	U	4	No
TM04-PZM082	Lower	TD = 92	Beryllium, dissolved	7/1/2004	1	U	4	No
TM04-PZM082	Lower	TD = 92	bis(2-Chloroethoxy)methane	7/1/2004	10	U	59	No
TM04-PZM082	Lower	TD = 92	bis(2-Chloroethyl)ether	7/1/2004	10	U	0.014	No
TM04-PZM082	Lower	TD = 92	bis(2-Ethylhexyl)phthalate	7/1/2004	10	U	6	No
TM04-PZM082	Lower	TD = 92	Bromoform	7/1/2004	1	U	0.13	No
TM04-PZM082	Lower	TD = 92	Butylbenzylphthalate	7/1/2004	10	U		No

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TM04-PZM082	Lower	TD = 92	Cadmium	7/1/2004	1	U	5	No
TM04-PZM082	Lower	TD = 92	Cadmium, dissolved	7/1/2004	1	U	5	No
TM04-PZM082	Lower	TD = 92	Carbon disulfide	7/1/2004	1	U	810	No
TM04-PZM082	Lower	TD = 92	Carbon tetrachloride	10/1/2002	1	U	5	No
TM04-PZM082	Lower	TD = 92	Carbon tetrachloride	7/1/2004	1	U	5	No
TM04-PZM082	Lower	TD = 92	Chlorobenzene	10/1/2002	1	U	100	No
TM04-PZM082	Lower	TD = 92	Chlorobenzene	7/1/2004	1	U	100	No
TM04-PZM082	Lower	TD = 92	Chloroethane	7/1/2004	1	U	21,000	No
TM04-PZM082	Lower	TD = 92	Chloroform	7/1/2004	1	U	0.22	No
TM04-PZM082	Lower	TD = 92	Chromium	7/1/2004	6.2	U	100	No
TM04-PZM082	Lower	TD = 92	Chromium, dissolved	7/1/2004	5.6	U	100	No
TM04-PZM082	Lower	TD = 92	Chrysene	7/1/2004	10	U	25	No
TM04-PZM082	Lower	TD = 92	cis-1,3-Dichloropropene	7/1/2004	1	U		No
TM04-PZM082	Lower	TD = 92	Cobalt	7/1/2004	1.3		6	No
TM04-PZM082	Lower	TD = 92	Cobalt, dissolved	7/1/2004	0.7	J	6	No
TM04-PZM082	Lower	TD = 92	Copper	7/1/2004	4.4		1,300	No
TM04-PZM082	Lower	TD = 92	Copper, dissolved	7/1/2004	3.3		1,300	No
TM04-PZM082	Lower	TD = 92	Cyanide, available	7/1/2004	2	U	200	No
TM04-PZM082	Lower	TD = 92	Cyanide, total	7/1/2004	46		200	No
TM04-PZM082	Lower	TD = 92	Dibenz[a,h]anthracene	7/1/2004	10	U	0.025	No
TM04-PZM082	Lower	TD = 92	Dibenzofuran	7/1/2004	10	U		No
TM04-PZM082	Lower	TD = 92	Diethylphthalate	7/1/2004	10	U	15,000	No
TM04-PZM082	Lower	TD = 92	Dimethylphthalate	7/1/2004	10	U		No
TM04-PZM082	Lower	TD = 92	Di-n-butylphthalate	7/1/2004	10	U	900	No
TM04-PZM082	Lower	TD = 92	Di-n-octylphthalate	7/1/2004	10	U	200	No
TM04-PZM082	Lower	TD = 92	Ethylbenzene	10/1/2002	5		700	No
TM04-PZM082	Lower	TD = 92	Ethylbenzene	7/1/2004	1	U	700	No
TM04-PZM082	Lower	TD = 92	Fluoranthene	7/1/2004	10	U	800	No
TM04-PZM082	Lower	TD = 92	Fluorene	7/1/2004	10	U	290	No
TM04-PZM082	Lower	TD = 92	Hexachlorobenzene	7/1/2004	10	U	1	No
TM04-PZM082	Lower	TD = 92	Hexachlorobutadiene	7/1/2004	10	U	0.14	No
TM04-PZM082	Lower	TD = 92	Hexachlorocyclopentadiene	7/1/2004	50	U	50	No
TM04-PZM082	Lower	TD = 92	Hexachloroethane	7/1/2004	10	U	0.33	No
TM04-PZM082	Lower	TD = 92	Indeno(1,2,3-cd)pyrene	7/1/2004	10	U	0.25	No
TM04-PZM082	Lower	TD = 92	Iron	7/1/2004	6,900		14,000	No
TM04-PZM082	Lower	TD = 92	Isophorone	7/1/2004	10	U		No
TM04-PZM082	Lower	TD = 92	Lead	7/1/2004	1.1		15	No
TM04-PZM082	Lower	TD = 92	Lead, dissolved	7/1/2004	1	U	15	No
TM04-PZM082	Lower	TD = 92	Mercury	7/1/2004	0.2	U	2	No
TM04-PZM082	Lower	TD = 92	Mercury, dissolved	7/1/2004	0.2	U	2	No
TM04-PZM082	Lower	TD = 92	Methylene chloride	10/1/2002	1	U	5	No
TM04-PZM082	Lower	TD = 92	Methylene chloride	7/1/2004	1.8	U	5	No
TM04-PZM082	Lower	TD = 92	Naphthalene	10/1/2002	42		0.17	Yes
TM04-PZM082	Lower	TD = 92	Naphthalene	7/1/2004	11		0.17	Yes
TM04-PZM082	Lower	TD = 92	Nickel	7/1/2004	8.1	U	390	No
TM04-PZM082	Lower	TD = 92	Nickel, dissolved	7/1/2004	7.3	U	390	No
TM04-PZM082	Lower	TD = 92	Nitrobenzene	7/1/2004	10	U	0.14	No
TM04-PZM082	Lower	TD = 92	Pentachloroethane	7/1/2004	50	U		No
TM04-PZM082	Lower	TD = 92	Pentachlorophenol	7/1/2004	50	U	1	No
TM04-PZM082	Lower	TD = 92	Phenanthrene	7/1/2004	10	U		No
TM04-PZM082	Lower	TD = 92	Phenol	7/1/2004	10	U	5,800	No

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TM04-PZM082	Lower	TD = 92	Pyrene	7/1/2004	10	U	120	No
TM04-PZM082	Lower	TD = 92	Pyridine	7/1/2004	20	U		No
TM04-PZM082	Lower	TD = 92	Selenium	7/1/2004	7		50	No
TM04-PZM082	Lower	TD = 92	Selenium, dissolved	7/1/2004	6.5		50	No
TM04-PZM082	Lower	TD = 92	Silver	7/1/2004	5	U	94	No
TM04-PZM082	Lower	TD = 92	Silver, dissolved	7/1/2004	5	U	94	No
TM04-PZM082	Lower	TD = 92	Sulfide	7/1/2004	1,000	UL		No
TM04-PZM082	Lower	TD = 92	Tetrachloroethene	10/1/2002	1	U	5	No
TM04-PZM082	Lower	TD = 92	Tetrachloroethene	7/1/2004	1	U	5	No
TM04-PZM082	Lower	TD = 92	Thallium	7/1/2004	1	U	2	No
TM04-PZM082	Lower	TD = 92	Thallium, dissolved	7/1/2004	1	U	2	No
TM04-PZM082	Lower	TD = 92	Tin	7/1/2004	460			No
TM04-PZM082	Lower	TD = 92	Tin, dissolved	7/1/2004	400			No
TM04-PZM082	Lower	TD = 92	Toluene	10/1/2002	0.8	J	1,000	No
TM04-PZM082	Lower	TD = 92	Toluene	7/1/2004	0.7	J	1,000	No
TM04-PZM082	Lower	TD = 92	trans-1,2-Dichloroethene	10/1/2002	1	U	100	No
TM04-PZM082	Lower	TD = 92	trans-1,2-Dichloroethene	7/1/2004	1	U	100	No
TM04-PZM082	Lower	TD = 92	trans-1,3-Dichloropropene	7/1/2004	1	U		No
TM04-PZM082	Lower	TD = 92	Trichloroethene	10/1/2002	1	U	5	No
TM04-PZM082	Lower	TD = 92	Trichloroethene	7/1/2004	1	U	5	No
TM04-PZM082	Lower	TD = 92	Vanadium	7/1/2004	5	U	86	No
TM04-PZM082	Lower	TD = 92	Vanadium, dissolved	7/1/2004	5	U	86	No
TM04-PZM082	Lower	TD = 92	Vinyl chloride	10/1/2002	1	U	2	No
TM04-PZM082	Lower	TD = 92	Vinyl chloride	7/1/2004	1	U	2	No
TM04-PZM082	Lower	TD = 92	Xylenes	10/1/2002	3.2		10,000	No
TM04-PZM082	Lower	TD = 92	Xylenes	7/1/2004	0.5	J	10,000	No
TM04-PZM082	Lower	TD = 92	Zinc	7/1/2004	10	U	6,000	No
TM04-PZM082	Lower	TD = 92	Zinc, dissolved	7/1/2004	10	U	6,000	No
TM06-PZM008	Shallow	9-19	1,1,1,2-Tetrachloroethane	12/3/2001	1	U		No
TM06-PZM008	Shallow	9-19	1,1,1-Trichloroethane	12/3/2001	1	U	200	No
TM06-PZM008	Shallow	9-19	1,1,2,2-Tetrachloroethane	12/3/2001	1	U	0.076	No
TM06-PZM008	Shallow	9-19	1,1,2-Trichloroethane	12/3/2001	1	U	5	No
TM06-PZM008	Shallow	9-19	1,1-Dichloroethane	12/3/2001	1	U	2.7	No
TM06-PZM008	Shallow	9-19	1,1-Dichloroethene	12/3/2001	1	U	7	No
TM06-PZM008	Shallow	9-19	1,2,4-Trichlorobenzene	12/3/2001	10	U	70	No
TM06-PZM008	Shallow	9-19	1,2-Dichlorobenzene	12/3/2001	10	U	600	No
TM06-PZM008	Shallow	9-19	1,2-Dichloroethane	12/3/2001	1	U	5	No
TM06-PZM008	Shallow	9-19	1,2-Dichloropropane	12/3/2001	1	U	5	No
TM06-PZM008	Shallow	9-19	1,3-Dichlorobenzene	12/3/2001	10	U		No
TM06-PZM008	Shallow	9-19	1,4-Dichlorobenzene	12/3/2001	10	U	75	No
TM06-PZM008	Shallow	9-19	2,2'-Oxybis(1-chloropropane)	12/3/2001	20	U	0.36	No
TM06-PZM008	Shallow	9-19	2,4,5-Trichlorophenol	12/3/2001	10	U	1,200	No
TM06-PZM008	Shallow	9-19	2,4,6-Trichlorophenol	12/3/2001	10	U	4	No
TM06-PZM008	Shallow	9-19	2,4-Dichlorophenol	12/3/2001	10	U	46	No
TM06-PZM008	Shallow	9-19	2,4-Dimethylphenol	12/3/2001	10	U	360	No
TM06-PZM008	Shallow	9-19	2,4-Dinitrophenol	12/3/2001	50	U	39	No
TM06-PZM008	Shallow	9-19	2,4-Dinitrotoluene	12/3/2001	10	U	0.24	No
TM06-PZM008	Shallow	9-19	2,6-Dinitrotoluene	12/3/2001	10	U	0.048	No
TM06-PZM008	Shallow	9-19	2-Butanone (MEK)	12/3/2001	5	U	5,600	No
TM06-PZM008	Shallow	9-19	2-Chloronaphthalene	12/3/2001	10	U	750	No
TM06-PZM008	Shallow	9-19	2-Chlorophenol	12/3/2001	10	U	91	No

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TM06-PZM008	Shallow	9-19	2-Hexanone	12/3/2001	5	U	38	No
TM06-PZM008	Shallow	9-19	2-Methylnaphthalene	12/3/2001	10	U	36	No
TM06-PZM008	Shallow	9-19	2-Methylphenol	12/3/2001	10	U	930	No
TM06-PZM008	Shallow	9-19	2-Nitrophenol	12/3/2001	10	U	190	No
TM06-PZM008	Shallow	9-19	3-&4-Methylphenol	10/1/2001	10	U	930	No
TM06-PZM008	Shallow	9-19	3,3'-Dichlorobenzidine	12/3/2001	50	U	0.12	No
TM06-PZM008	Shallow	9-19	3,3'-Dimethylbenzidine	12/3/2001	50	U		No
TM06-PZM008	Shallow	9-19	4,6-Dinitro-2-methylphenol	12/3/2001	50	U		No
TM06-PZM008	Shallow	9-19	4-Bromophenyl-phenylether	12/3/2001	10	U		No
TM06-PZM008	Shallow	9-19	4-Chloro-3-methylphenol	12/3/2001	10	U		No
TM06-PZM008	Shallow	9-19	4-Chlorophenyl-phenylether	12/3/2001	10	U		No
TM06-PZM008	Shallow	9-19	4-Methyl-2-pentanone (MIBK)	12/3/2001	5	U	1,200	No
TM06-PZM008	Shallow	9-19	4-Methylphenol	12/3/2001	10	U	930	No
TM06-PZM008	Shallow	9-19	4-Nitrophenol	12/3/2001	50	U		No
TM06-PZM008	Shallow	9-19	Acenaphthene	12/3/2001	2.1	J	530	No
TM06-PZM008	Shallow	9-19	Acenaphthylene	12/3/2001	10	U	530	No
TM06-PZM008	Shallow	9-19	Acetone	12/3/2001	10	U	14,000	No
TM06-PZM008	Shallow	9-19	Anthracene	12/3/2001	10	U	1,800	No
TM06-PZM008	Shallow	9-19	Antimony	12/3/2001	4.1	U	6	No
TM06-PZM008	Shallow	9-19	Aroclor-1016	12/3/2001	1	U		No
TM06-PZM008	Shallow	9-19	Aroclor-1221	12/3/2001	1	U		No
TM06-PZM008	Shallow	9-19	Aroclor-1232	12/3/2001	1	U		No
TM06-PZM008	Shallow	9-19	Aroclor-1242	12/3/2001	1	U		No
TM06-PZM008	Shallow	9-19	Aroclor-1248	12/3/2001	1	U		No
TM06-PZM008	Shallow	9-19	Aroclor-1254	12/3/2001	1	U		No
TM06-PZM008	Shallow	9-19	Aroclor-1260	12/3/2001	1	U		No
TM06-PZM008	Shallow	9-19	Arsenic	12/3/2001	2.9	J	10	No
TM06-PZM008	Shallow	9-19	Barium	12/3/2001	38.4	J	2,000	No
TM06-PZM008	Shallow	9-19	Benz(a)anthracene	12/3/2001	10	U	0.0298	No
TM06-PZM008	Shallow	9-19	Benzene	12/3/2001	0.29	J	5	No
TM06-PZM008	Shallow	9-19	Benzo(a)pyrene	12/3/2001	10	U	0.2	No
TM06-PZM008	Shallow	9-19	Benzo(b)fluoranthene	12/3/2001	10	U	0.25	No
TM06-PZM008	Shallow	9-19	Benzo(g,h,i)perylene	12/3/2001	10	U		No
TM06-PZM008	Shallow	9-19	Benzo(k)fluoranthene	12/3/2001	10	U	2.5	No
TM06-PZM008	Shallow	9-19	Beryllium	12/3/2001	1.3	B	4	No
TM06-PZM008	Shallow	9-19	Bicarbonate	12/12/2000	2,000	U		No
TM06-PZM008	Shallow	9-19	bis(2-Chloroethoxy)methane	12/3/2001	10	U	59	No
TM06-PZM008	Shallow	9-19	bis(2-Chloroethyl)ether	12/3/2001	10	U	0.014	No
TM06-PZM008	Shallow	9-19	bis(2-Ethylhexyl)phthalate	12/3/2001	10	U	6	No
TM06-PZM008	Shallow	9-19	Bromoform	12/3/2001	1	U	0.13	No
TM06-PZM008	Shallow	9-19	Butylbenzylphthalate	12/3/2001	10	U		No
TM06-PZM008	Shallow	9-19	Cadmium	12/3/2001	0.63	U	5	No
TM06-PZM008	Shallow	9-19	Calcium	12/12/2000	20,000			No
TM06-PZM008	Shallow	9-19	Carbon disulfide	12/3/2001	1	U	810	No
TM06-PZM008	Shallow	9-19	Carbon tetrachloride	12/3/2001	1	U	5	No
TM06-PZM008	Shallow	9-19	Chloride	10/1/2000	200,000			No
TM06-PZM008	Shallow	9-19	Chloride	12/12/2000	200,000			No
TM06-PZM008	Shallow	9-19	Chlorobenzene	12/3/2001	1	U	100	No
TM06-PZM008	Shallow	9-19	Chloroethane	12/3/2001	2	UJ	21,000	No
TM06-PZM008	Shallow	9-19	Chloroform	12/3/2001	1	U	0.22	No
TM06-PZM008	Shallow	9-19	Chromium	12/3/2001	3.9	B	100	No

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TM06-PZM008	Shallow	9-19	Chrysene	12/3/2001	10	U	25	No
TM06-PZM008	Shallow	9-19	cis-1,3-Dichloropropene	12/3/2001	1	U		No
TM06-PZM008	Shallow	9-19	Cobalt	12/3/2001	0.88	J	6	No
TM06-PZM008	Shallow	9-19	Copper	12/3/2001	0.77	U	1,300	No
TM06-PZM008	Shallow	9-19	Cyanide, amenable	10/1/2001	2,600	J	200	Yes
TM06-PZM008	Shallow	9-19	Cyanide, amenable	12/3/2001	2,600	J	200	Yes
TM06-PZM008	Shallow	9-19	Dibenz(a,h)anthracene	12/3/2001	10	U	0.025	No
TM06-PZM008	Shallow	9-19	Dibenzofuran	12/3/2001	10	U		No
TM06-PZM008	Shallow	9-19	Diethylphthalate	12/3/2001	10	U	15,000	No
TM06-PZM008	Shallow	9-19	Dimethylphthalate	12/3/2001	10	U		No
TM06-PZM008	Shallow	9-19	Di-n-butylphthalate	12/3/2001	10	U	900	No
TM06-PZM008	Shallow	9-19	Di-n-octylphthalate	12/3/2001	10	U	200	No
TM06-PZM008	Shallow	9-19	Ethylbenzene	12/3/2001	1	U	700	No
TM06-PZM008	Shallow	9-19	Fluoranthene	12/3/2001	0.82	J	800	No
TM06-PZM008	Shallow	9-19	Fluorene	12/3/2001	1.1	J	290	No
TM06-PZM008	Shallow	9-19	Hexachlorobenzene	12/3/2001	10	U	1	No
TM06-PZM008	Shallow	9-19	Hexachlorobutadiene	12/3/2001	10	U	0.14	No
TM06-PZM008	Shallow	9-19	Hexachlorocyclopentadiene	12/3/2001	50	U	50	No
TM06-PZM008	Shallow	9-19	Hexachloroethane	12/3/2001	10	U	0.33	No
TM06-PZM008	Shallow	9-19	Indeno(1,2,3-cd)pyrene	12/3/2001	10	U	0.25	No
TM06-PZM008	Shallow	9-19	Iron	10/1/2000	100	U	14,000	No
TM06-PZM008	Shallow	9-19	Iron	12/12/2000	100	U	14,000	No
TM06-PZM008	Shallow	9-19	Isophorone	12/3/2001	10	U		No
TM06-PZM008	Shallow	9-19	Lead	12/3/2001	2.4	B	15	No
TM06-PZM008	Shallow	9-19	Magnesium	12/12/2000	99,000			No
TM06-PZM008	Shallow	9-19	Manganese	12/12/2000	60		430	No
TM06-PZM008	Shallow	9-19	Mercury	12/3/2001	0.054	UL	2	No
TM06-PZM008	Shallow	9-19	Methylene chloride	12/3/2001	2	U	5	No
TM06-PZM008	Shallow	9-19	Naphthalene	12/3/2001	10	U	0.17	No
TM06-PZM008	Shallow	9-19	Nickel	12/3/2001	3.7	J	390	No
TM06-PZM008	Shallow	9-19	Nitrobenzene	12/3/2001	10	U	0.14	No
TM06-PZM008	Shallow	9-19	Pentachloroethane	12/3/2001	50	U		No
TM06-PZM008	Shallow	9-19	Pentachlorophenol	12/3/2001	50	U	1	No
TM06-PZM008	Shallow	9-19	Phenanthrene	12/3/2001	0.79	J		No
TM06-PZM008	Shallow	9-19	Phenol	12/3/2001	10	U	5,800	No
TM06-PZM008	Shallow	9-19	Potassium	12/12/2000	69,000			No
TM06-PZM008	Shallow	9-19	Pyrene	12/3/2001	10	U	120	No
TM06-PZM008	Shallow	9-19	Pyridine	12/3/2001	20	U		No
TM06-PZM008	Shallow	9-19	Selenium	12/3/2001	4.6	J	50	No
TM06-PZM008	Shallow	9-19	Silver	12/3/2001	2.1	B	94	No
TM06-PZM008	Shallow	9-19	Sodium	12/12/2000	130,000			No
TM06-PZM008	Shallow	9-19	Sulfate	10/1/2000	25,000			No
TM06-PZM008	Shallow	9-19	Sulfate	12/12/2000	25,000			No
TM06-PZM008	Shallow	9-19	Sulfide	12/3/2001	1,000			No
TM06-PZM008	Shallow	9-19	Tetrachloroethene	12/3/2001	1	U	5	No
TM06-PZM008	Shallow	9-19	Thallium	12/3/2001	5.7	U	2	No
TM06-PZM008	Shallow	9-19	Tin	12/3/2001	28.8	U		No
TM06-PZM008	Shallow	9-19	Toluene	12/3/2001	1	U	1,000	No
TM06-PZM008	Shallow	9-19	Total dissolved solids (TDS)	12/12/2000	940,000			No
TM06-PZM008	Shallow	9-19	trans-1,2-Dichloroethene	12/3/2001	1	U	100	No
TM06-PZM008	Shallow	9-19	trans-1,3-Dichloropropene	12/3/2001	1	U		No

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TM06-PZM008	Shallow	9-19	Trichloroethene	12/3/2001	1	U	5	No
TM06-PZM008	Shallow	9-19	Vanadium	12/3/2001	12.3	J	86	No
TM06-PZM008	Shallow	9-19	Vinyl chloride	12/3/2001	2	U	2	No
TM06-PZM008	Shallow	9-19	Xylene, total	12/3/2001	3	U	10,000	No
TM06-PZM008	Shallow	9-19	Zinc	12/3/2001	1.5	U	6,000	No
TM06-PZM034	Intermediate	35-45	1,1,1,2-Tetrachloroethane	12/3/2001	1	U		No
TM06-PZM034	Intermediate	35-45	1,1,1-Trichloroethane	12/3/2001	1	U	200	No
TM06-PZM034	Intermediate	35-45	1,1,2,2-Tetrachloroethane	12/3/2001	1	U	0.076	No
TM06-PZM034	Intermediate	35-45	1,1,2-Trichloroethane	12/3/2001	1	U	5	No
TM06-PZM034	Intermediate	35-45	1,1-Dichloroethane	12/3/2001	1	U	2.7	No
TM06-PZM034	Intermediate	35-45	1,1-Dichloroethene	12/3/2001	1	U	7	No
TM06-PZM034	Intermediate	35-45	1,2,4-Trichlorobenzene	12/3/2001	10	U	70	No
TM06-PZM034	Intermediate	35-45	1,2-Dichlorobenzene	12/3/2001	10	U	600	No
TM06-PZM034	Intermediate	35-45	1,2-Dichloroethane	12/3/2001	1	U	5	No
TM06-PZM034	Intermediate	35-45	1,2-Dichloropropane	12/3/2001	1	U	5	No
TM06-PZM034	Intermediate	35-45	1,3-Dichlorobenzene	12/3/2001	10	U		No
TM06-PZM034	Intermediate	35-45	1,4-Dichlorobenzene	12/3/2001	10	U	75	No
TM06-PZM034	Intermediate	35-45	2,2'-Oxybis(1-chloropropane)	12/3/2001	20	U	0.36	No
TM06-PZM034	Intermediate	35-45	2,4,5-Trichlorophenol	12/3/2001	10	U	1,200	No
TM06-PZM034	Intermediate	35-45	2,4,6-Trichlorophenol	12/3/2001	10	U	4	No
TM06-PZM034	Intermediate	35-45	2,4-Dichlorophenol	12/3/2001	10	U	46	No
TM06-PZM034	Intermediate	35-45	2,4-Dimethylphenol	12/3/2001	10	U	360	No
TM06-PZM034	Intermediate	35-45	2,4-Dinitrophenol	12/3/2001	50	U	39	No
TM06-PZM034	Intermediate	35-45	2,4-Dinitrotoluene	12/3/2001	10	U	0.24	No
TM06-PZM034	Intermediate	35-45	2,6-Dinitrotoluene	12/3/2001	10	U	0.048	No
TM06-PZM034	Intermediate	35-45	2-Butanone (MEK)	12/3/2001	5	U	5,600	No
TM06-PZM034	Intermediate	35-45	2-Chloronaphthalene	12/3/2001	10	U	750	No
TM06-PZM034	Intermediate	35-45	2-Chlorophenol	12/3/2001	10	U	91	No
TM06-PZM034	Intermediate	35-45	2-Hexanone	12/3/2001	5	U	38	No
TM06-PZM034	Intermediate	35-45	2-Methylnaphthalene	12/3/2001	10	U	36	No
TM06-PZM034	Intermediate	35-45	2-Methylphenol	12/3/2001	10	U	930	No
TM06-PZM034	Intermediate	35-45	2-Nitrophenol	12/3/2001	10	U	190	No
TM06-PZM034	Intermediate	35-45	3-&4-Methylphenol	10/1/2001	10	U	930	No
TM06-PZM034	Intermediate	35-45	3,3'-Dichlorobenzidine	12/3/2001	50	U	0.12	No
TM06-PZM034	Intermediate	35-45	3,3'-Dimethylbenzidine	12/3/2001	50	U		No
TM06-PZM034	Intermediate	35-45	4,6-Dinitro-2-methylphenol	12/3/2001	50	U		No
TM06-PZM034	Intermediate	35-45	4-Bromophenyl-phenylether	12/3/2001	10	U		No
TM06-PZM034	Intermediate	35-45	4-Chloro-3-methylphenol	12/3/2001	10	U		No
TM06-PZM034	Intermediate	35-45	4-Chlorophenyl-phenylether	12/3/2001	10	U		No
TM06-PZM034	Intermediate	35-45	4-Methyl-2-pentanone (MIBK)	12/3/2001	5	U	1,200	No
TM06-PZM034	Intermediate	35-45	4-Methylphenol	12/3/2001	10	U	930	No
TM06-PZM034	Intermediate	35-45	4-Nitrophenol	12/3/2001	50	U		No
TM06-PZM034	Intermediate	35-45	Acenaphthene	12/3/2001	10	U	530	No
TM06-PZM034	Intermediate	35-45	Acenaphthylene	12/3/2001	10	U	530	No
TM06-PZM034	Intermediate	35-45	Acetone	12/3/2001	10	U	14,000	No
TM06-PZM034	Intermediate	35-45	Anthracene	12/3/2001	10	U	1,800	No
TM06-PZM034	Intermediate	35-45	Antimony	12/3/2001	4.1	U	6	No
TM06-PZM034	Intermediate	35-45	Aroclor-1016	12/3/2001	1	U		No
TM06-PZM034	Intermediate	35-45	Aroclor-1221	12/3/2001	1	U		No
TM06-PZM034	Intermediate	35-45	Aroclor-1232	12/3/2001	1	U		No
TM06-PZM034	Intermediate	35-45	Aroclor-1242	12/3/2001	1	U		No



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TM06-PZM034	Intermediate	35-45	Aroclor-1248	12/3/2001	1	U		No
TM06-PZM034	Intermediate	35-45	Aroclor-1254	12/3/2001	1	U		No
TM06-PZM034	Intermediate	35-45	Aroclor-1260	12/3/2001	1	U		No
TM06-PZM034	Intermediate	35-45	Arsenic	12/3/2001	16.7		10	Yes
TM06-PZM034	Intermediate	35-45	Barium	12/3/2001	55.2	J	2,000	No
TM06-PZM034	Intermediate	35-45	Benz(a)anthracene	12/3/2001	10	U	0.0298	No
TM06-PZM034	Intermediate	35-45	Benzene	12/3/2001	1	U	5	No
TM06-PZM034	Intermediate	35-45	Benzo(a)pyrene	12/3/2001	10	U	0.2	No
TM06-PZM034	Intermediate	35-45	Benzo(b)fluoranthene	12/3/2001	10	U	0.25	No
TM06-PZM034	Intermediate	35-45	Benzo(g,h,i)perylene	12/3/2001	10	U		No
TM06-PZM034	Intermediate	35-45	Benzo(k)fluoranthene	12/3/2001	10	U	2.5	No
TM06-PZM034	Intermediate	35-45	Beryllium	12/3/2001	1.4	B	4	No
TM06-PZM034	Intermediate	35-45	Bicarbonate	12/3/2001	249,000			No
TM06-PZM034	Intermediate	35-45	bis(2-Chloroethoxy)methane	12/3/2001	10	U	59	No
TM06-PZM034	Intermediate	35-45	bis(2-Chloroethyl)ether	12/3/2001	10	U	0.014	No
TM06-PZM034	Intermediate	35-45	bis(2-Ethylhexyl)phthalate	12/3/2001	10	U	6	No
TM06-PZM034	Intermediate	35-45	Bromoform	12/3/2001	1	U	0.13	No
TM06-PZM034	Intermediate	35-45	Butylbenzylphthalate	12/3/2001	10	U		No
TM06-PZM034	Intermediate	35-45	Cadmium	12/3/2001	1.1	J	5	No
TM06-PZM034	Intermediate	35-45	Calcium	12/3/2001	96,000			No
TM06-PZM034	Intermediate	35-45	Carbon disulfide	12/3/2001	1	U	810	No
TM06-PZM034	Intermediate	35-45	Carbon tetrachloride	12/3/2001	1	U	5	No
TM06-PZM034	Intermediate	35-45	Chloride	12/3/2001	2,160,000			No
TM06-PZM034	Intermediate	35-45	Chlorobenzene	12/3/2001	1	U	100	No
TM06-PZM034	Intermediate	35-45	Chloroethane	12/3/2001	2	UJ	21,000	No
TM06-PZM034	Intermediate	35-45	Chloroform	12/3/2001	1	U	0.22	No
TM06-PZM034	Intermediate	35-45	Chromium	12/3/2001	1.1	U	100	No
TM06-PZM034	Intermediate	35-45	Chrysene	12/3/2001	10	U	25	No
TM06-PZM034	Intermediate	35-45	cis-1,3-Dichloropropene	12/3/2001	1	U		No
TM06-PZM034	Intermediate	35-45	Cobalt	12/3/2001	8.8	J	6	Yes
TM06-PZM034	Intermediate	35-45	Copper	12/3/2001	0.77	U	1,300	No
TM06-PZM034	Intermediate	35-45	Cyanide, amenable	10/1/2001	29	J	200	No
TM06-PZM034	Intermediate	35-45	Cyanide, amenable	12/3/2001	29	J	200	No
TM06-PZM034	Intermediate	35-45	Dibenz(a,h)anthracene	12/3/2001	10	U	0.025	No
TM06-PZM034	Intermediate	35-45	Dibenzofuran	12/3/2001	10	U		No
TM06-PZM034	Intermediate	35-45	Diethylphthalate	12/3/2001	10	U	15,000	No
TM06-PZM034	Intermediate	35-45	Dimethylphthalate	12/3/2001	10	U		No
TM06-PZM034	Intermediate	35-45	Di-n-butylphthalate	12/3/2001	10	U	900	No
TM06-PZM034	Intermediate	35-45	Di-n-octylphthalate	12/3/2001	10	U	200	No
TM06-PZM034	Intermediate	35-45	Ethylbenzene	12/3/2001	1	U	700	No
TM06-PZM034	Intermediate	35-45	Fluoranthene	12/3/2001	10	U	800	No
TM06-PZM034	Intermediate	35-45	Fluorene	12/3/2001	10	U	290	No
TM06-PZM034	Intermediate	35-45	Hexachlorobenzene	12/3/2001	10	U	1	No
TM06-PZM034	Intermediate	35-45	Hexachlorobutadiene	12/3/2001	10	U	0.14	No
TM06-PZM034	Intermediate	35-45	Hexachlorocyclopentadiene	12/3/2001	50	U	50	No
TM06-PZM034	Intermediate	35-45	Hexachloroethane	12/3/2001	10	U	0.33	No
TM06-PZM034	Intermediate	35-45	Indeno(1,2,3-cd)pyrene	12/3/2001	10	U	0.25	No
TM06-PZM034	Intermediate	35-45	Iron	12/3/2001	216,000	L	14,000	Yes
TM06-PZM034	Intermediate	35-45	Isophorone	12/3/2001	10	U		No
TM06-PZM034	Intermediate	35-45	Lead	12/3/2001	1.8	U	15	No
TM06-PZM034	Intermediate	35-45	Magnesium	12/3/2001	197,000			No

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TM06-PZM034	Intermediate	35-45	Manganese	12/3/2001	9,130		430	Yes
TM06-PZM034	Intermediate	35-45	Mercury	12/3/2001	0.054	UL	2	No
TM06-PZM034	Intermediate	35-45	Methylene chloride	12/3/2001	2	U	5	No
TM06-PZM034	Intermediate	35-45	Naphthalene	12/3/2001	10	U	0.17	No
TM06-PZM034	Intermediate	35-45	Nickel	12/3/2001	7.3	J	390	No
TM06-PZM034	Intermediate	35-45	Nitrobenzene	12/3/2001	10	U	0.14	No
TM06-PZM034	Intermediate	35-45	Pentachloroethane	12/3/2001	50	U		No
TM06-PZM034	Intermediate	35-45	Pentachlorophenol	12/3/2001	50	U	1	No
TM06-PZM034	Intermediate	35-45	Phenanthrene	12/3/2001	10	U		No
TM06-PZM034	Intermediate	35-45	Phenol	12/3/2001	10	U	5,800	No
TM06-PZM034	Intermediate	35-45	Potassium	12/3/2001	27,700			No
TM06-PZM034	Intermediate	35-45	Pyrene	12/3/2001	10	U	120	No
TM06-PZM034	Intermediate	35-45	Pyridine	12/3/2001	20	U		No
TM06-PZM034	Intermediate	35-45	Selenium	12/3/2001	3.2	U	50	No
TM06-PZM034	Intermediate	35-45	Silver	12/3/2001	0.75	U	94	No
TM06-PZM034	Intermediate	35-45	Sodium	12/3/2001	1,220,000			No
TM06-PZM034	Intermediate	35-45	Sulfate	12/3/2001	701,000			No
TM06-PZM034	Intermediate	35-45	Sulfide	12/3/2001	1,000			No
TM06-PZM034	Intermediate	35-45	Tetrachloroethene	12/3/2001	1	U	5	No
TM06-PZM034	Intermediate	35-45	Thallium	12/3/2001	36.5		2	Yes
TM06-PZM034	Intermediate	35-45	Tin	12/3/2001	28.8	U		No
TM06-PZM034	Intermediate	35-45	Toluene	12/3/2001	1	U	1,000	No
TM06-PZM034	Intermediate	35-45	trans-1,2-Dichloroethene	12/3/2001	1	U	100	No
TM06-PZM034	Intermediate	35-45	trans-1,3-Dichloropropene	12/3/2001	1	U		No
TM06-PZM034	Intermediate	35-45	Trichloroethene	12/3/2001	1	U	5	No
TM06-PZM034	Intermediate	35-45	Vanadium	12/3/2001	31.4	J	86	No
TM06-PZM034	Intermediate	35-45	Vinyl chloride	12/3/2001	2	U	2	No
TM06-PZM034	Intermediate	35-45	Xylene, total	12/3/2001	3	U	10,000	No
TM06-PZM034	Intermediate	35-45	Zinc	12/3/2001	8.1	J	6,000	No
TM08-PZM007	Shallow	4-14	1,1,1,2-Tetrachloroethane	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	1,1,1-Trichloroethane	11/27/2001	1	U	200	No
TM08-PZM007	Shallow	4-14	1,1,2,2-Tetrachloroethane	11/27/2001	1	U	0.076	No
TM08-PZM007	Shallow	4-14	1,1,2-Trichloroethane	11/27/2001	1	U	5	No
TM08-PZM007	Shallow	4-14	1,1-Dichloroethane	11/27/2001	1	U	2.7	No
TM08-PZM007	Shallow	4-14	1,1-Dichloroethene	11/27/2001	1	U	7	No
TM08-PZM007	Shallow	4-14	1,2,3-Trichloropropane	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	1,2,4,5-Tetrachlorobenzene	11/27/2001	10	U	1.7	No
TM08-PZM007	Shallow	4-14	1,2,4-Trichlorobenzene	11/27/2001	10	U	70	No
TM08-PZM007	Shallow	4-14	1,2-Dibromo-3-chloropropane	11/27/2001	1	U	0.2	No
TM08-PZM007	Shallow	4-14	1,2-Dibromoethane	11/27/2001	1	U	0.0075	No
TM08-PZM007	Shallow	4-14	1,2-Dichlorobenzene	11/27/2001	10	U	600	No
TM08-PZM007	Shallow	4-14	1,2-Dichloroethane	11/27/2001	1	U	5	No
TM08-PZM007	Shallow	4-14	1,2-Dichloropropane	11/27/2001	1	U	5	No
TM08-PZM007	Shallow	4-14	1,3,5-Trinitrobenzene	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	1,3-Dichlorobenzene	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	1,3-Dinitrobenzene	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	1,4-Dichlorobenzene	11/27/2001	10	U	75	No
TM08-PZM007	Shallow	4-14	1,4-Dioxane	11/27/2001	200	R	0.46	Yes
TM08-PZM007	Shallow	4-14	1,4-Naphthoquinone	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	1-Naphthylamine	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	2,2'-Oxybis(1-chloropropane)	11/27/2001	10	U	0.36	No

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TM08-PZM007	Shallow	4-14	2,3,4,6-Tetrachlorophenol	11/27/2001	10	U	240	No
TM08-PZM007	Shallow	4-14	2,4,5-Trichlorophenol	11/27/2001	10	U	1,200	No
TM08-PZM007	Shallow	4-14	2,4,6-Trichlorophenol	11/27/2001	10	U	4	No
TM08-PZM007	Shallow	4-14	2,4-Dichlorophenol	11/27/2001	10	U	46	No
TM08-PZM007	Shallow	4-14	2,4-Dimethylphenol	11/27/2001	5.2	J	360	No
TM08-PZM007	Shallow	4-14	2,4-Dinitrophenol	11/27/2001	50	U	39	No
TM08-PZM007	Shallow	4-14	2,4-Dinitrotoluene	11/27/2001	10	U	0.24	No
TM08-PZM007	Shallow	4-14	2,6-Dichlorophenol	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	2,6-Dinitrotoluene	11/27/2001	10	U	0.048	No
TM08-PZM007	Shallow	4-14	2-Acetylaminofluorene	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	2-Butanone (MEK)	11/27/2001	5	U	5,600	No
TM08-PZM007	Shallow	4-14	2-Chloro-1,3-butadiene	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	2-Chloronaphthalene	11/27/2001	10	U	750	No
TM08-PZM007	Shallow	4-14	2-Chlorophenol	11/27/2001	10	U	91	No
TM08-PZM007	Shallow	4-14	2-Hexanone	11/27/2001	5	U	38	No
TM08-PZM007	Shallow	4-14	2-Methyl-5-nitroaniline	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	2-Methylaniline	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	2-Methylnaphthalene	11/27/2001	10	U	36	No
TM08-PZM007	Shallow	4-14	2-Methylphenol	11/27/2001	10	U	930	No
TM08-PZM007	Shallow	4-14	2-Naphthylamine	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	2-Nitroaniline	11/27/2001	50	U	190	No
TM08-PZM007	Shallow	4-14	2-Nitrophenol	11/27/2001	10	U	190	No
TM08-PZM007	Shallow	4-14	2-Picoline	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	3-&4-Methylphenol	10/1/2001	4	J	930	No
TM08-PZM007	Shallow	4-14	3,3'-Dichlorobenzidine	11/27/2001	50	U	0.12	No
TM08-PZM007	Shallow	4-14	3,3'-Dimethylbenzidine	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	3-Methylcholanthrene	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	3-Nitroaniline	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	4,6-Dinitro-2-methylphenol	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	4-Aminobiphenyl	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	4-Bromophenyl-phenylether	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	4-Chloro-3-methylphenol	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	4-Chloroaniline	11/27/2001	10	U	0.36	No
TM08-PZM007	Shallow	4-14	4-Chlorophenyl-phenylether	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	4-Methyl-2-pentanone (MIBK)	11/27/2001	5	U	1,200	No
TM08-PZM007	Shallow	4-14	4-Methylphenol	11/27/2001	4	J	930	No
TM08-PZM007	Shallow	4-14	4-Nitroaniline	11/27/2001	50	U	3.8	No
TM08-PZM007	Shallow	4-14	4-Nitrophenol	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	4-Nitroquinoline-1-oxide	11/27/2001	100	U		No
TM08-PZM007	Shallow	4-14	7,12-Dimethylbenz(a)anthracene	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	a,a-Dimethylphenethylamine	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	Acenaphthene	11/27/2001	10	U	530	No
TM08-PZM007	Shallow	4-14	Acenaphthylene	11/27/2001	10	U	530	No
TM08-PZM007	Shallow	4-14	Acetone	11/27/2001	10	U	14,000	No
TM08-PZM007	Shallow	4-14	Acetonitrile	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	Acetophenone	11/27/2001	10	U	1,900	No
TM08-PZM007	Shallow	4-14	Acrolein	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	Acrylonitrile	11/27/2001	20	R		No
TM08-PZM007	Shallow	4-14	Allyl chloride	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Aniline	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	Anthracene	11/27/2001	10	U	1,800	No

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Well	Zone	Screen Interval (feet bgs)	Parameter	Sampling Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
TM08-PZM007	Shallow	4-14	Antimony	11/27/2001	4.1	U	6	No
TM08-PZM007	Shallow	4-14	Aramite	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	Aroclor-1016	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Aroclor-1221	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Aroclor-1232	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Aroclor-1242	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Aroclor-1248	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Aroclor-1254	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Aroclor-1260	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Arsenic	11/27/2001	6.8	J	10	No
TM08-PZM007	Shallow	4-14	Barium	11/27/2001	79.2	J	2,000	No
TM08-PZM007	Shallow	4-14	Benz(a)anthracene	11/27/2001	10	U	0.0298	No
TM08-PZM007	Shallow	4-14	Benzene	11/27/2001	1	U	5	No
TM08-PZM007	Shallow	4-14	Benzo(a)pyrene	11/27/2001	10	U	0.2	No
TM08-PZM007	Shallow	4-14	Benzo(b)fluoranthene	11/27/2001	10	U	0.25	No
TM08-PZM007	Shallow	4-14	Benzo(g,h,i)perylene	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	Benzo(k)fluoranthene	11/27/2001	10	U	2.5	No
TM08-PZM007	Shallow	4-14	Benzyl alcohol	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	Beryllium	11/27/2001	2.4	B	4	No
TM08-PZM007	Shallow	4-14	bis(2-Chloroethoxy)methane	11/27/2001	10	U	59	No
TM08-PZM007	Shallow	4-14	bis(2-Chloroethyl)ether	11/27/2001	10	U	0.014	No
TM08-PZM007	Shallow	4-14	bis(2-Ethylhexyl)phthalate	11/27/2001	5.7	J	6	No
TM08-PZM007	Shallow	4-14	Bromodichloromethane	11/27/2001	1	U	0.13	No
TM08-PZM007	Shallow	4-14	Bromoform	11/27/2001	1	U	0.13	No
TM08-PZM007	Shallow	4-14	Bromomethane	11/27/2001	2	U	7.5	No
TM08-PZM007	Shallow	4-14	Butylbenzylphthalate	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	Cadmium	11/27/2001	0.72		5	No
TM08-PZM007	Shallow	4-14	Carbon disulfide	11/27/2001	1	U	810	No
TM08-PZM007	Shallow	4-14	Carbon tetrachloride	11/27/2001	1	U	5	No
TM08-PZM007	Shallow	4-14	Chlorobenzene	11/27/2001	1	U	100	No
TM08-PZM007	Shallow	4-14	Chloroethane	11/27/2001	2	U	21,000	No
TM08-PZM007	Shallow	4-14	Chloroform	11/27/2001	1	U	0.22	No
TM08-PZM007	Shallow	4-14	Chloromethane	11/27/2001	2	U	190	No
TM08-PZM007	Shallow	4-14	Chromium	11/27/2001	161		100	Yes
TM08-PZM007	Shallow	4-14	Chrysene	11/27/2001	10	U	25	No
TM08-PZM007	Shallow	4-14	cis-1,3-Dichloropropene	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Cobalt	11/27/2001	2.1	J	6	No
TM08-PZM007	Shallow	4-14	Copper	11/27/2001	30		1,300	No
TM08-PZM007	Shallow	4-14	Cyanide, amenable	10/1/2001	200		200	No
TM08-PZM007	Shallow	4-14	Cyanide, amenable	11/27/2001	200		200	No
TM08-PZM007	Shallow	4-14	Dibenz(a,h)anthracene	11/27/2001	10	U	0.025	No
TM08-PZM007	Shallow	4-14	Dibenzofuran	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	Dibromochloromethane	11/27/2001	1	U	0.17	No
TM08-PZM007	Shallow	4-14	Dibromomethane	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Dichlorodifluoromethane(Freon-12)	11/27/2001	2	U	200	No
TM08-PZM007	Shallow	4-14	Diethylphthalate	11/27/2001	10	U	15,000	No
TM08-PZM007	Shallow	4-14	Dimethylphthalate	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	Di-n-butylphthalate	11/27/2001	10	U	900	No
TM08-PZM007	Shallow	4-14	Di-n-octylphthalate	11/27/2001	10	U	200	No
TM08-PZM007	Shallow	4-14	Dinoseb	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	Diphenylamine	11/27/2001	10	U		No

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TM08-PZM007	Shallow	4-14	Ethyl methacrylate	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Ethyl methanesulfonate	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	Ethylbenzene	11/27/2001	1	U	700	No
TM08-PZM007	Shallow	4-14	Fluoranthene	11/27/2001	10	U	800	No
TM08-PZM007	Shallow	4-14	Fluorene	11/27/2001	10	U	290	No
TM08-PZM007	Shallow	4-14	Hexachlorobenzene	11/27/2001	10	U	1	No
TM08-PZM007	Shallow	4-14	Hexachlorobutadiene	11/27/2001	10	U	0.14	No
TM08-PZM007	Shallow	4-14	Hexachlorocyclopentadiene	11/27/2001	50	U	50	No
TM08-PZM007	Shallow	4-14	Hexachloroethane	11/27/2001	10	U	0.33	No
TM08-PZM007	Shallow	4-14	Hexachloropropene	11/27/2001	100	U		No
TM08-PZM007	Shallow	4-14	Indeno(1,2,3-cd)pyrene	11/27/2001	10	U	0.25	No
TM08-PZM007	Shallow	4-14	Iodomethane	11/27/2001	1	UJ		No
TM08-PZM007	Shallow	4-14	Isobutanol	11/27/2001	40	U		No
TM08-PZM007	Shallow	4-14	Isophorone	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	Isosafrole	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	Lead	11/27/2001	27		15	Yes
TM08-PZM007	Shallow	4-14	Mercury	11/27/2001	0.09	L	2	No
TM08-PZM007	Shallow	4-14	Methacrylonitrile	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Methapyrilene	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	Methyl methacrylate	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Methyl methanesulfonate	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	Methylene chloride	11/27/2001	2	U	5	No
TM08-PZM007	Shallow	4-14	Naphthalene	11/27/2001	10	U	0.17	No
TM08-PZM007	Shallow	4-14	Nickel	11/27/2001	13	J	390	No
TM08-PZM007	Shallow	4-14	Nitrobenzene	11/27/2001	10	U	0.14	No
TM08-PZM007	Shallow	4-14	n-Nitrosodiethylamine	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	n-Nitrosodimethylamine	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	n-Nitroso-di-n-butylamine	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	n-Nitroso-di-n-propylamine	11/27/2001	10	U	0.011	No
TM08-PZM007	Shallow	4-14	n-Nitrosodiphenylamine	11/27/2001	10	U	12	No
TM08-PZM007	Shallow	4-14	N-Nitrosomorpholine	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	n-Nitroso-n-methylethylamine	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	N-Nitrosopiperidine	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	n-Nitrosopyrrolidine	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	p-Dimethylaminoazobenzene	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	Pentachlorobenzene	11/27/2001	10	U		No
TM08-PZM007	Shallow	4-14	Pentachloroethane	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	Pentachloronitrobenzene	11/27/2001	50	U		No
TM08-PZM007	Shallow	4-14	Pentachlorophenol	11/27/2001	50	U	1	No
TM08-PZM007	Shallow	4-14	Phenacetin	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	Phenanthrene	11/27/2001	0.6	J		No
TM08-PZM007	Shallow	4-14	Phenol	11/27/2001	1.5	J	5,800	No
TM08-PZM007	Shallow	4-14	p-Phenylenediamine	11/27/2001	200	U		No
TM08-PZM007	Shallow	4-14	Pronamide	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	Propionitrile	11/27/2001	2	R		No
TM08-PZM007	Shallow	4-14	Pyrene	11/27/2001	10	U	120	No
TM08-PZM007	Shallow	4-14	Pyridine	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	Safrole	11/27/2001	20	U		No
TM08-PZM007	Shallow	4-14	Selenium	11/27/2001	5.6		50	No
TM08-PZM007	Shallow	4-14	Silver	11/27/2001	1.1	B	94	No
TM08-PZM007	Shallow	4-14	Styrene	11/27/2001	1	U	100	No

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TM08-PZM007	Shallow	4-14	Sulfide	11/27/2001	3,300			No
TM08-PZM007	Shallow	4-14	Tetrachloroethene	11/27/2001	1	U	5	No
TM08-PZM007	Shallow	4-14	Thallium	11/27/2001	5.7	U	2	No
TM08-PZM007	Shallow	4-14	Tin	11/27/2001	363			No
TM08-PZM007	Shallow	4-14	Toluene	11/27/2001	1	U	1,000	No
TM08-PZM007	Shallow	4-14	trans-1,2-Dichloroethene	11/27/2001	1	U	100	No
TM08-PZM007	Shallow	4-14	trans-1,3-Dichloropropene	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	trans-1,4-Dichloro-2-butene	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Trichloroethene	11/27/2001	1	U	5	No
TM08-PZM007	Shallow	4-14	Trichlorofluoromethane(Freon-11)	11/27/2001	2	U	1,100	No
TM08-PZM007	Shallow	4-14	Vanadium	11/27/2001	26.4	J	86	No
TM08-PZM007	Shallow	4-14	Vinyl acetate	11/27/2001	1	U		No
TM08-PZM007	Shallow	4-14	Vinyl chloride	11/27/2001	2	U	2	No
TM08-PZM007	Shallow	4-14	Xylene, total	11/27/2001	3	U	10,000	No
TM08-PZM007	Shallow	4-14	Zinc	11/27/2001	246		6,000	No
TM08-PZM038	Intermediate	35-45	1,1,1,2-Tetrachloroethane	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	1,1,1-Trichloroethane	11/27/2001	1	U	200	No
TM08-PZM038	Intermediate	35-45	1,1,2,2-Tetrachloroethane	11/27/2001	1	U	0.076	No
TM08-PZM038	Intermediate	35-45	1,1,2-Trichloroethane	11/27/2001	1	U	5	No
TM08-PZM038	Intermediate	35-45	1,1-Dichloroethane	11/27/2001	1	U	2.7	No
TM08-PZM038	Intermediate	35-45	1,1-Dichloroethene	11/27/2001	1	U	7	No
TM08-PZM038	Intermediate	35-45	1,2,3-Trichloropropane	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	1,2,4,5-Tetrachlorobenzene	11/27/2001	10	U	1.7	No
TM08-PZM038	Intermediate	35-45	1,2,4-Trichlorobenzene	11/27/2001	10	U	70	No
TM08-PZM038	Intermediate	35-45	1,2-Dibromo-3-chloropropane	11/27/2001	1	U	0.2	No
TM08-PZM038	Intermediate	35-45	1,2-Dibromoethane	11/27/2001	1	U	0.0075	No
TM08-PZM038	Intermediate	35-45	1,2-Dichlorobenzene	11/27/2001	10	U	600	No
TM08-PZM038	Intermediate	35-45	1,2-Dichloroethane	11/27/2001	1	U	5	No
TM08-PZM038	Intermediate	35-45	1,2-Dichloropropane	11/27/2001	1	U	5	No
TM08-PZM038	Intermediate	35-45	1,3,5-Trinitrobenzene	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	1,3-Dichlorobenzene	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	1,3-Dinitrobenzene	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	1,4-Dichlorobenzene	11/27/2001	10	U	75	No
TM08-PZM038	Intermediate	35-45	1,4-Dioxane	11/27/2001	200	R	0.46	Yes
TM08-PZM038	Intermediate	35-45	1,4-Naphthoquinone	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	1-Naphthylamine	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	2,2'-Oxybis(1-chloropropane)	11/27/2001	10	U	0.36	No
TM08-PZM038	Intermediate	35-45	2,3,4,6-Tetrachlorophenol	11/27/2001	10	U	240	No
TM08-PZM038	Intermediate	35-45	2,4,5-Trichlorophenol	11/27/2001	10	U	1,200	No
TM08-PZM038	Intermediate	35-45	2,4,6-Trichlorophenol	11/27/2001	10	U	4	No
TM08-PZM038	Intermediate	35-45	2,4-Dichlorophenol	11/27/2001	10	U	46	No
TM08-PZM038	Intermediate	35-45	2,4-Dimethylphenol	11/27/2001	140		360	No
TM08-PZM038	Intermediate	35-45	2,4-Dinitrophenol	11/27/2001	50	U	39	No
TM08-PZM038	Intermediate	35-45	2,4-Dinitrotoluene	11/27/2001	10	U	0.24	No
TM08-PZM038	Intermediate	35-45	2,6-Dichlorophenol	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	2,6-Dinitrotoluene	11/27/2001	10	U	0.048	No
TM08-PZM038	Intermediate	35-45	2-Acetylaminofluorene	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	2-Butanone (MEK)	11/27/2001	5	U	5,600	No
TM08-PZM038	Intermediate	35-45	2-Chloro-1,3-butadiene	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	2-Chloronaphthalene	11/27/2001	10	U	750	No
TM08-PZM038	Intermediate	35-45	2-Chlorophenol	11/27/2001	10	U	91	No

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TM08-PZM038	Intermediate	35-45	2-Hexanone	11/27/2001	5	U	38	No
TM08-PZM038	Intermediate	35-45	2-Methyl-5-nitroaniline	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	2-Methylaniline	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	2-Methylnaphthalene	11/27/2001	10	U	36	No
TM08-PZM038	Intermediate	35-45	2-Methylphenol	11/27/2001	3.1	J	930	No
TM08-PZM038	Intermediate	35-45	2-Naphthylamine	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	2-Nitroaniline	11/27/2001	50	U	190	No
TM08-PZM038	Intermediate	35-45	2-Nitrophenol	11/27/2001	10	U	190	No
TM08-PZM038	Intermediate	35-45	2-Picoline	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	3-&4-Methylphenol	10/1/2001	41		930	No
TM08-PZM038	Intermediate	35-45	3,3'-Dichlorobenzidine	11/27/2001	50	U	0.12	No
TM08-PZM038	Intermediate	35-45	3,3'-Dimethylbenzidine	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	3-Methylcholanthrene	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	3-Nitroaniline	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	4,6-Dinitro-2-methylphenol	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	4-Aminobiphenyl	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	4-Bromophenyl-phenylether	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	4-Chloro-3-methylphenol	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	4-Chloroaniline	11/27/2001	10	U	0.36	No
TM08-PZM038	Intermediate	35-45	4-Chlorophenyl-phenylether	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	4-Methyl-2-pentanone (MIBK)	11/27/2001	5	U	1,200	No
TM08-PZM038	Intermediate	35-45	4-Methylphenol	11/27/2001	40		930	No
TM08-PZM038	Intermediate	35-45	4-Methylphenol	11/27/2001	41		930	No
TM08-PZM038	Intermediate	35-45	4-Nitroaniline	11/27/2001	50	U	3.8	No
TM08-PZM038	Intermediate	35-45	4-Nitrophenol	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	4-Nitroquinoline-1-oxide	11/27/2001	100	U		No
TM08-PZM038	Intermediate	35-45	7,12-Dimethylbenz(a)anthracene	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	a,a-Dimethylphenethylamine	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	Acenaphthene	11/27/2001	10	U	530	No
TM08-PZM038	Intermediate	35-45	Acenaphthylene	11/27/2001	10	U	530	No
TM08-PZM038	Intermediate	35-45	Acetone	11/27/2001	3.2	J	14,000	No
TM08-PZM038	Intermediate	35-45	Acetonitrile	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	Acetophenone	11/27/2001	10	U	1,900	No
TM08-PZM038	Intermediate	35-45	Acrolein	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	Acrylonitrile	11/27/2001	20	R		No
TM08-PZM038	Intermediate	35-45	Allyl chloride	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Aniline	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Anthracene	11/27/2001	10	U	1,800	No
TM08-PZM038	Intermediate	35-45	Antimony	11/27/2001	4.1	U	6	No
TM08-PZM038	Intermediate	35-45	Aramite	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	Aroclor-1016	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Aroclor-1221	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Aroclor-1232	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Aroclor-1242	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Aroclor-1248	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Aroclor-1254	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Aroclor-1260	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Arsenic	11/27/2001	7	J	10	No
TM08-PZM038	Intermediate	35-45	Arsenic	11/27/2001	8.4	J	10	No
TM08-PZM038	Intermediate	35-45	Barium	11/27/2001	603		2,000	No
TM08-PZM038	Intermediate	35-45	Barium	11/27/2001	611		2,000	No

**Parcel B14 Historical Groundwater Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Well	Zone	Screen Interval (feet bgs)	Parameter	Sampling Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
TM08-PZM038	Intermediate	35-45	Benz(a)anthracene	11/27/2001	10	U	0.0298	No
TM08-PZM038	Intermediate	35-45	Benzene	11/27/2001	1	U	5	No
TM08-PZM038	Intermediate	35-45	Benzo(a)pyrene	11/27/2001	10	U	0.2	No
TM08-PZM038	Intermediate	35-45	Benzo(b)fluoranthene	11/27/2001	10	U	0.25	No
TM08-PZM038	Intermediate	35-45	Benzo(g,h,i)perylene	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Benzo(k)fluoranthene	11/27/2001	10	U	2.5	No
TM08-PZM038	Intermediate	35-45	Benzyl alcohol	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Beryllium	11/27/2001	2.7	B	4	No
TM08-PZM038	Intermediate	35-45	Beryllium	11/27/2001	3	B	4	No
TM08-PZM038	Intermediate	35-45	Bicarbonate	11/27/2001	154,000			No
TM08-PZM038	Intermediate	35-45	Bicarbonate	11/27/2001	157,000			No
TM08-PZM038	Intermediate	35-45	bis(2-Chloroethoxy)methane	11/27/2001	10	U	59	No
TM08-PZM038	Intermediate	35-45	bis(2-Chloroethyl)ether	11/27/2001	10	U	0.014	No
TM08-PZM038	Intermediate	35-45	bis(2-Ethylhexyl)phthalate	11/27/2001	10	U	6	No
TM08-PZM038	Intermediate	35-45	Bromodichloromethane	11/27/2001	1	U	0.13	No
TM08-PZM038	Intermediate	35-45	Bromoform	11/27/2001	1	U	0.13	No
TM08-PZM038	Intermediate	35-45	Bromomethane	11/27/2001	2	U	7.5	No
TM08-PZM038	Intermediate	35-45	Butylbenzylphthalate	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Cadmium	11/27/2001	0.63	U	5	No
TM08-PZM038	Intermediate	35-45	Calcium	11/27/2001	193,000			No
TM08-PZM038	Intermediate	35-45	Calcium	11/27/2001	197,000			No
TM08-PZM038	Intermediate	35-45	Carbon disulfide	11/27/2001	1	U	810	No
TM08-PZM038	Intermediate	35-45	Carbon tetrachloride	11/27/2001	1	U	5	No
TM08-PZM038	Intermediate	35-45	Chloride	11/27/2001	1,710,000			No
TM08-PZM038	Intermediate	35-45	Chloride	11/27/2001	1,740,000			No
TM08-PZM038	Intermediate	35-45	Chlorobenzene	11/27/2001	1	U	100	No
TM08-PZM038	Intermediate	35-45	Chloroethane	11/27/2001	2	U	21,000	No
TM08-PZM038	Intermediate	35-45	Chloroform	11/27/2001	1	U	0.22	No
TM08-PZM038	Intermediate	35-45	Chloromethane	11/27/2001	2	U	190	No
TM08-PZM038	Intermediate	35-45	Chromium	11/27/2001	1.4	J	100	No
TM08-PZM038	Intermediate	35-45	Chromium	11/27/2001	4.6	J	100	No
TM08-PZM038	Intermediate	35-45	Chrysene	11/27/2001	10	U	25	No
TM08-PZM038	Intermediate	35-45	cis-1,3-Dichloropropene	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Cobalt	11/27/2001	1.3	J	6	No
TM08-PZM038	Intermediate	35-45	Cobalt	11/27/2001	1.4	J	6	No
TM08-PZM038	Intermediate	35-45	Copper	11/27/2001	3.4	B	1,300	No
TM08-PZM038	Intermediate	35-45	Copper	11/27/2001	4.2	B	1,300	No
TM08-PZM038	Intermediate	35-45	Cyanide, amenable	11/27/2001	2,600		200	Yes
TM08-PZM038	Intermediate	35-45	Cyanide, amenable	11/27/2001	4,700		200	Yes
TM08-PZM038	Intermediate	35-45	Dibenz(a,h)anthracene	11/27/2001	10	U	0.025	No
TM08-PZM038	Intermediate	35-45	Dibenzofuran	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Dibromochloromethane	11/27/2001	1	U	0.17	No
TM08-PZM038	Intermediate	35-45	Dibromomethane	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Dichlorodifluoromethane(Freon-12)	11/27/2001	2	U	200	No
TM08-PZM038	Intermediate	35-45	Diethylphthalate	11/27/2001	10	U	15,000	No
TM08-PZM038	Intermediate	35-45	Dimethylphthalate	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Di-n-butylphthalate	11/27/2001	10	U	900	No
TM08-PZM038	Intermediate	35-45	Di-n-octylphthalate	11/27/2001	10	U	200	No
TM08-PZM038	Intermediate	35-45	Dinoseb	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	Diphenylamine	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Ethyl methacrylate	11/27/2001	1	U		No



**Parcel B14 Historical Groundwater Data**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Well	Zone	Screen Interval (feet bgs)	Parameter	Sampling Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
TM08-PZM038	Intermediate	35-45	Ethyl methanesulfonate	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Ethylbenzene	11/27/2001	1	U	700	No
TM08-PZM038	Intermediate	35-45	Fluoranthene	11/27/2001	10	U	800	No
TM08-PZM038	Intermediate	35-45	Fluorene	11/27/2001	10	U	290	No
TM08-PZM038	Intermediate	35-45	Hexachlorobenzene	11/27/2001	10	U	1	No
TM08-PZM038	Intermediate	35-45	Hexachlorobutadiene	11/27/2001	10	U	0.14	No
TM08-PZM038	Intermediate	35-45	Hexachlorocyclopentadiene	11/27/2001	50	U	50	No
TM08-PZM038	Intermediate	35-45	Hexachloroethane	11/27/2001	10	U	0.33	No
TM08-PZM038	Intermediate	35-45	Hexachloropropene	11/27/2001	100	U		No
TM08-PZM038	Intermediate	35-45	Indeno(1,2,3-cd)pyrene	11/27/2001	10	U	0.25	No
TM08-PZM038	Intermediate	35-45	Iodomethane	11/27/2001	1	UJ		No
TM08-PZM038	Intermediate	35-45	Iron	11/27/2001	37,500	J	14,000	Yes
TM08-PZM038	Intermediate	35-45	Isobutanol	11/27/2001	40	U		No
TM08-PZM038	Intermediate	35-45	Isophorone	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Isosafrole	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	Lead	11/27/2001	1.8	U	15	No
TM08-PZM038	Intermediate	35-45	Magnesium	11/27/2001	73,500			No
TM08-PZM038	Intermediate	35-45	Magnesium	11/27/2001	76,400			No
TM08-PZM038	Intermediate	35-45	Manganese	11/27/2001	275	L	430	No
TM08-PZM038	Intermediate	35-45	Manganese	11/27/2001	276	L	430	No
TM08-PZM038	Intermediate	35-45	Mercury	11/27/2001	0.054	R	2	No
TM08-PZM038	Intermediate	35-45	Methacrylonitrile	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Methapyrilene	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	Methyl methacrylate	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Methyl methanesulfonate	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Methylene chloride	11/27/2001	0.7	B	5	No
TM08-PZM038	Intermediate	35-45	Methylene chloride	11/27/2001	0.85	B	5	No
TM08-PZM038	Intermediate	35-45	Naphthalene	11/27/2001	1.3	J	0.17	Yes
TM08-PZM038	Intermediate	35-45	Naphthalene	11/27/2001	3.2	J	0.17	Yes
TM08-PZM038	Intermediate	35-45	Nickel	11/27/2001	2.4	U	390	No
TM08-PZM038	Intermediate	35-45	Nickel	11/27/2001	2.8	J	390	No
TM08-PZM038	Intermediate	35-45	Nitrobenzene	11/27/2001	10	U	0.14	No
TM08-PZM038	Intermediate	35-45	n-Nitrosodiethylamine	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	n-Nitrosodimethylamine	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	n-Nitroso-di-n-butylamine	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	n-Nitroso-di-n-propylamine	11/27/2001	10	U	0.011	No
TM08-PZM038	Intermediate	35-45	n-Nitrosodiphenylamine	11/27/2001	10	U	12	No
TM08-PZM038	Intermediate	35-45	N-Nitrosomorpholine	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	n-Nitroso-n-methylethylamine	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	N-Nitrosopiperidine	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	n-Nitrosopyrrolidine	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	p-Dimethylaminoazobenzene	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	Pentachlorobenzene	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Pentachloroethane	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	Pentachloronitrobenzene	11/27/2001	50	U		No
TM08-PZM038	Intermediate	35-45	Pentachlorophenol	11/27/2001	50	U	1	No
TM08-PZM038	Intermediate	35-45	Phenacetin	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	Phenanthrene	11/27/2001	10	U		No
TM08-PZM038	Intermediate	35-45	Phenol	11/27/2001	10		5,800	No
TM08-PZM038	Intermediate	35-45	Phenol	11/27/2001	11		5,800	No
TM08-PZM038	Intermediate	35-45	Potassium	11/27/2001	54,200	J		No

**Parcel B14 Historical Groundwater Data  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Well	Zone	Screen Interval (feet bgs)	Parameter	Sampling Date	Result (ug/L)	Flag	PAL (ug/L)	Exceeds PAL?
TM08-PZM038	Intermediate	35-45	Potassium	11/27/2001	56,200	J		No
TM08-PZM038	Intermediate	35-45	p-Phenylenediamine	11/27/2001	200	U		No
TM08-PZM038	Intermediate	35-45	Pronamide	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	Propionitrile	11/27/2001	2	R		No
TM08-PZM038	Intermediate	35-45	Pyrene	11/27/2001	10	U	120	No
TM08-PZM038	Intermediate	35-45	Pyridine	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	Safrole	11/27/2001	20	U		No
TM08-PZM038	Intermediate	35-45	Selenium	11/27/2001	3.2	U	50	No
TM08-PZM038	Intermediate	35-45	Silver	11/27/2001	0.75	U	94	No
TM08-PZM038	Intermediate	35-45	Sodium	11/27/2001	711,000			No
TM08-PZM038	Intermediate	35-45	Sodium	11/27/2001	714,000			No
TM08-PZM038	Intermediate	35-45	Styrene	11/27/2001	1	U	100	No
TM08-PZM038	Intermediate	35-45	Sulfate	11/27/2001	171,000			No
TM08-PZM038	Intermediate	35-45	Sulfate	11/27/2001	188,000			No
TM08-PZM038	Intermediate	35-45	Sulfide	11/27/2001	1,000	U		No
TM08-PZM038	Intermediate	35-45	Sulfide	11/27/2001	2,600			No
TM08-PZM038	Intermediate	35-45	Tetrachloroethene	11/27/2001	1	U	5	No
TM08-PZM038	Intermediate	35-45	Thallium	11/27/2001	5.7	U	2	No
TM08-PZM038	Intermediate	35-45	Tin	11/27/2001	28.8	U		No
TM08-PZM038	Intermediate	35-45	Toluene	11/27/2001	1	U	1,000	No
TM08-PZM038	Intermediate	35-45	trans-1,2-Dichloroethene	11/27/2001	1	U	100	No
TM08-PZM038	Intermediate	35-45	trans-1,3-Dichloropropene	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	trans-1,4-Dichloro-2-butene	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Trichloroethene	11/27/2001	1	U	5	No
TM08-PZM038	Intermediate	35-45	Trichlorofluoromethane(Freon-11)	11/27/2001	2	U	1,100	No
TM08-PZM038	Intermediate	35-45	Vanadium	11/27/2001	9.3	J	86	No
TM08-PZM038	Intermediate	35-45	Vanadium	11/27/2001	10.6	J	86	No
TM08-PZM038	Intermediate	35-45	Vinyl acetate	11/27/2001	1	U		No
TM08-PZM038	Intermediate	35-45	Vinyl chloride	11/27/2001	2	U	2	No
TM08-PZM038	Intermediate	35-45	Xylene, total	11/27/2001	3	U	10,000	No
TM08-PZM038	Intermediate	35-45	Zinc	11/27/2001	4.3	J	6,000	No
TM08-PZM038	Intermediate	35-45	Zinc	11/27/2001	7.3	J	6,000	No

B = The analyte was not detected substantially above the level reported in laboratory or field blanks

J = The analyte was positively detected; the associated numerical value is approximate

L = The analyte was positively detected; the reported value may be biased low

R = The result is unreliable. The analyte may or may not be present in the sample

U = The analyte was not detected above the reporting limit

UJ = The analyte's reporting limit is approximate

UL = The analyte was not detected above the reporting limit; the reporting limit may be biased low

TD = Total Depth. The historic screen interval is not available, but the total measured depth is given based on the completed well inspection.

\*The water-level probe used to gauge the well had only 100 feet of tape. The depth to bottom exceeded 100 feet.

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## APPENDIX C

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## WELL INSPECTION FORM

Site: Sparrows Point: Area B Location of Well: Parcel B8 (Middle)

Project Number: 150300M-10-3 Date: 8/20/15

### WELL INFORMATION

Well ID: HI02-PZM006 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/**Northing** 569967.1 ft. Longitude/**Easting** 1457454.2 ft.

Condition of pad and/or cover: Fair (vegetation) Flush Mount or Stick-Up? Flush Mount

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? No Lock? No Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	6.22' TOC / 6.55' BGS	
Depth to Bottom (feet BGS/TOC)	16.89' TOC / 17.22' BGS	17' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: Location of the well was difficult due to the amount of vegetative cover. Housing was filled with water which needed to be bailed out before gauging could be completed.

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B8

Project Number: 150300 Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: HI02-PZM032 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 1457459.5 ft. Longitude/Easting 569963.7 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Flush Mount

Well ID Marked? Yes If yes, where? Exterior Flush Mount Lid

Locking cap? No Lock? No Diameter of Well: 0.5"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	6.02' TOC / 6.32' BGS	
Depth to Bottom (feet BGS/TOC)	28.26' TOC / 28.56' BGS	43' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: HI04-PZM006 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 1459049.3 ft. Longitude/Easting 570781.9 ft.

Condition of pad and/or cover: N/A Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? Yes Lock? Yes, cut Diameter of Well: 2"

Structural integrity of well: Poor, PVC bent at grade

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	9.98' TOC	
Depth to Bottom (feet BGS/TOC)	18.90' TOC	17' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: Gauged well with micro probe.

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: HI04-PZM034 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 1459048.3 ft. Longitude/Easting 570791.7 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? No Lock? Yes, cut Diameter of Well: 0.5"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	12.98' TOC / 9.73' BGS	
Depth to Bottom (feet BGS/TOC)	47.88' TOC / 44.63' BGS	45' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### **WELL INFORMATION**

Well ID: HI05-PZM012 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 1459023.8 ft. Longitude/Easting 570463.7 ft.

Condition of pad and/or cover: N/A Flush Mount or Stick-Up? N/A

Well ID Marked? N/A If yes, where? \_\_\_\_\_

Locking cap? N/A Lock? N/A Diameter of Well: N/A

Structural integrity of well: N/A

### **WELL MEASUREMENTS**

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	N/A	
Depth to Bottom (feet BGS/TOC)	N/A	13' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: Well could not be located due to 15' tall cattails.

### **PICTURE OF WELL DURING INSPECTION**





## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: HI05-PZM046 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 1459037.2 ft. Longitude/Easting 570455.6 ft.

Condition of pad and/or cover: N/A Flush Mount or Stick-Up? N/A

Well ID Marked? N/A If yes, where? \_\_\_\_\_

Locking cap? N/A Lock? N/A Diameter of Well: N/A

Structural integrity of well: N/A

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	N/A	
Depth to Bottom (feet BGS/TOC)	N/A	49' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: Well could not be located due to 15' tall cattails.

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: HI05-PZM108 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 1459051.3 ft. Longitude/Easting 570462.6 ft.

Condition of pad and/or cover: N/A Flush Mount or Stick-Up? N/A

Well ID Marked? N/A If yes, where? \_\_\_\_\_

Locking cap? N/A Lock? N/A Diameter of Well: N/A

Structural integrity of well: N/A

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	N/A	
Depth to Bottom (feet BGS/TOC)	N/A	110' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: Well could not be located due to 15' tall cattails.

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point: Area B Location of Well: Parcel B8 (East)

Project Number: 150300M-10-3 Date: 8/20/15

### WELL INFORMATION

Well ID: HI07-PZM005 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/**Northing** 570209.3 ft. Longitude/**Easting** 1458426.3 ft.

Condition of pad and/or cover: Fair (rusted) Flush Mount or Stick-Up? Stick up

Well ID Marked? Yes If yes, where? Vertical on casing (faded)

Locking cap? Yes Lock? Broken Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	9.04' TOC / 6.00' BGS	
Depth to Bottom (feet BGS/TOC)	17.24' TOC / 14.20' BGS	14' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: Included in a set of 3 wells located on eastern edge of Parcel B8.  
Lock was broken to gain access for gauging.

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B8

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: HI07-PZM032 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 570202.4 ft. Longitude/Easting 1458418.3 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? No Lock? No Diameter of Well: 0.5"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
<b>Depth to Water (feet BGS/TOC)</b>	7.80' TOC / 5.00' BGS	
<b>Depth to Bottom (feet BGS/TOC)</b>	35.25' TOC /32.45' BGS	42' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B8

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: HI07-PZM094 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 570207.2 ft. Longitude/Easting 1458421.6 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? Yes Lock? No Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	11.88' TOC / 9.38' BGS	
Depth to Bottom (feet BGS/TOC)	> 100' TOC / > 100' BGS	N/A

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: Water probe had only 100 feet of tape, depth to bottom was greater than 100 feet deep.

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: TM02-PZM009 Well Permit No.: BA-81-1442

Coordinates:

Latitude/Northing 569243.2 ft. Longitude/Easting 1457354.1 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? Yes If yes, where? Outside metal casing

Locking cap? No Lock? Yes, cut Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	10.05' TOC / 6.60' BGS	
Depth to Bottom (feet BGS/TOC)	19.48' TOC / 16.13' BGS	21' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

ARM Representative: NSK Date: 4/13/16 Project Number: 150300M

### WELL INFORMATION

Well ID: TM02-PZM028 Well Permit No.: BA-81-1443

Coordinates:

Latitude/Northing 1457350.9 ft. Longitude/Easting 569236.3 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? Yes If yes, where? Outside metal casing

Locking cap? No Lock? Yes, cut Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	7.02' BGS / 9.97' TOC	
Depth to Bottom (feet BGS/TOC)	36.47' BGS / 39.42' TOC	41' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: TM02-PZM062 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 1457346.9 ft. Longitude/Easting 569231.9 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? No Lock? Yes, cut Diameter of Well: 0.5"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	10.84' TOC / 7.89' BGS	
Depth to Bottom (feet BGS/TOC)	74.91' TOC / 72.96' BGS	70' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION





## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: TM04-PZM006 Well Permit No.: BA-81-1440

Coordinates:

Latitude/Northing 1458568.1 ft. Longitude/Easting 569438.3 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? Yes If yes, where? Outside metal casing

Locking cap? No Lock? Yes Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	12.52' TOC / 9.48' BGS	
Depth to Bottom (feet BGS/TOC)	21.12' TOC / 18.08' BGS	21' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

\_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: TM04-PZM028 Well Permit No.: BA-81-1447

Coordinates:

Latitude/Northing 1458581.1 ft. Longitude/Easting 569442.0 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? Yes If yes, where? Outside metal casing

Locking cap? No Lock? Yes Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	11.53' TOC / 8.51' BGS	
Depth to Bottom (feet BGS/TOC)	40.61' TOC / 37.59' BGS	45.5' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: TM04-PZM056 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 1458592.8 ft. Longitude/Easting 569445.5 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? No Lock? Yes, cut Diameter of Well: 0.5"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	13.65' TOC / 10.65' BGS	
Depth to Bottom (feet BGS/TOC)	69.95' TOC / 66.95' BGS	67' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

\_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: TM04-PZM082 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 1458554.3 ft. Longitude/Easting 569432.9 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? Yes If yes, where? Under well casing lid

Locking cap? Yes Lock? Yes, cut Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	12.02' TOC/9.07' BGS	
Depth to Bottom (feet BGS/TOC)	94.75' TOC / 91.80' BGS	N/A

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point: Area B Location of Well: Tin Mill B16/Humphrey Impoundment B14

Project Number: 150300 M Date: 11/23/15

### WELL INFORMATION

Well ID: TM06-PZM008 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 569583.6 ft Longitude/Easting 1459391.8 ft

Condition of pad and/or cover: Fair (Vegetation) Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? Yes Lock? Cut. Yes Diameter of Well: 2"

Structural integrity of well: Good, slightly tilted.

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
<b>Depth to Water (feet BGS/TOC)</b>	13.35' TOC/10.14 BGS	
<b>Depth to Bottom (feet BGS/TOC)</b>	21.58' TOC/18.32 BGS	19' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: Tag on riser cap "TM06"

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### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point: Area B Location of Well: Tin Mill B16/Humphrey Impoundment B14

Project Number: 150300 M Date: 11/20/15

### WELL INFORMATION

Well ID: TM06-PZM034 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 569574.0 ft Longitude/Easting 1459387.6 ft

Condition of pad and/or cover: Fair (Vegetation) Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? Yes Lock? Cut. Yes Diameter of Well: 0.75"

Structural integrity of well: Good.

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	13.70' TOC/10.95 BGS	
Depth to Bottom (feet BGS/TOC)	47.75' TOC/44.96 BGS	45' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point: Area B Location of Well: Tin Mill B16 / Humphrey Impoundment B14

Project Number: 150300 M Date: 11/23/15

### WELL INFORMATION

Well ID: TM08-PZM007 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 570378.3 ft. Longitude/Easting 1459724.5 ft.

Condition of pad and/or cover: Fair (Good amount of vegetation)

Flush Mount or Stick-Up? Stick-up

Well ID Marked? Yes-partial If yes, where? "7" at bottom of casing

Locking cap? Yes Lock? Cut. Yes Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	9.12' TOC/6.43' BGS	
Depth to Bottom (feet BGS/TOC)	15.09' TOC/12.41' BGS	14' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: Has a "7" on lower part of casing.

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point: Area B Location of Well: Tin Mill B16/Humphrey Impoundment B14

Project Number: 150300 M Date: 11/20/15

### WELL INFORMATION

Well ID: TM08-PZM038 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 570381.0 ft. Longitude/Easting 1459731.8 ft.

Condition of pad and/or cover: Fair (Good amount of vegetation)

Flush Mount or Stick-Up? Stick-up

Well ID Marked? Yes-partial If yes, where? 8 at bottom of casing

Locking cap? Yes Lock? Cut. Yes Diameter of Well: 0.75"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	8.67' TOC/6.77' BGS	
Depth to Bottom (feet BGS/TOC)	41.20' TOC/39.33' BGS	45' BGS

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: Has an "8" on lower part of casing.

### PICTURE OF WELL DURING INSPECTION





## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: Well 1 Well Permit No.: BA-81-4615

Coordinates:

Latitude/Northing 569230.0 ft. Longitude/Easting 1458013.4 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? No Lock? Yes, cut Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	12.15' TOC / 9.07' BGS	
Depth to Bottom (feet BGS/TOC)	58.33' TOC / 55.25' BGS	N/A

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: Well 2 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 569218.7 ft. Longitude/Easting 1458000.2 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? No Lock? Yes, cut Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	12.15' TOC / 9.07' BGS	
Depth to Bottom (feet BGS/TOC)	22.79' TOC / 19.51' BGS	N/A

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: Well 3 Well Permit No.: \_\_\_\_\_

Coordinates:

Latitude/Northing 569230.5 ft. Longitude/Easting 1458012.6 ft.

Condition of pad and/or cover: Destroyed Flush Mount or Stick-Up? N/A

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? N/A Lock? N/A Diameter of Well: 0.5"

Structural integrity of well: Destroyed, PVC found on the ground

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	N/A	
Depth to Bottom (feet BGS/TOC)	N/A	N/A

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: 0.5" well PVC observed during well inspection

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B14

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: Well 4 Well Permit No.: BA-81-1444

Coordinates:

Latitude/Northing 5699970.3 ft. Longitude/Easting 1457515.3 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? No Lock? Yes Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	7.86' TOC / 5.90' BGS	
Depth to Bottom (feet BGS/TOC)	27.22' TOC / 25.26' BGS	N/A

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



## WELL INSPECTION FORM

Site: Sparrows Point Area B Location of Well: Parcel B8

Project Number: 150300M Date: 4/13/16 ARM Representative: NSK

### WELL INFORMATION

Well ID: Well 5 Well Permit No.: BA-81-1445

Coordinates:

Latitude/Northing 570149.0 ft. Longitude/Easting 1458360.3 ft.

Condition of pad and/or cover: Good Flush Mount or Stick-Up? Stick-up

Well ID Marked? No If yes, where? \_\_\_\_\_

Locking cap? No Lock? Yes Diameter of Well: 2"

Structural integrity of well: Good

### WELL MEASUREMENTS

	Measured (Current)	Historic Reported
Depth to Water (feet BGS/TOC)	7.53' TOC / 5.23' BGS	
Depth to Bottom (feet BGS/TOC)	25.89' TOC / 23.59' BGS	N/A

Notes: BGS = below ground surface, TOC = top of casing

Additional Comments: \_\_\_\_\_

### PICTURE OF WELL DURING INSPECTION



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## **APPENDIX D**

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**Parcel B14 Historical Well Construction Information Summary**  
**Former Sparrows Point Steel Mill**  
**Sparrows Point, Maryland**

Location Designation	Monitoring Well Designation	Installation Method	Date Installed	Included in Parcel B14 Work Plan	Northing	Eastings	Protection Cover Type	Well Total Depth (ft)	Riser Length (ft)	Screen Length (ft)	Filter Pack Interval (ft)	Seal Interval (ft)	Grout Interval (ft)
HI02	HI02-PZM006	Hollow Stem Auger	10/10/2001	Yes <sup>^</sup>	569967.1	1457454.2	Flush mount	17.0	7.0	10.0	17 - 5	5 - 3	3 - 0
	HI02-PZM032	Direct Push	9/19/2001	No	569963.7	1457459.5	Flush mount	43.0	33.0	10.0	43 - 33	33 - 32	32 - 0
HI04	HI04-PZM006	Hollow Stem Auger	9/26/2001	Yes	570781.9	1459049.3	Steel Riser	17.0	7.0	10.0	17 - 5	5 - 3	3 - 0
	HI04-PZM034	Direct Push	9/18/2001	No	570791.7	1459048.3	Steel Riser	45.0	35.0	10.0	45 - 35	35 - 34	34 - 0
HI05	HI05-PZM012	Hollow Stem Auger	10/25/2000	No	570463.7	1459023.8	Steel Riser	13.0	3.0	10.0	13 - 2	2 - 1	1 - 0
	HI05-PZM046	Hollow Stem Auger	10/25/2000	No	570455.6	1459037.2	Steel Riser	49.0	46.0	3.0	49 - 46	46 - 44	44 - 0
	HI05-PZM108	Hollow Stem Auger	1/23 - 10/25/2000	No	570462.6	1459051.3	Steel Riser	110.0	107.0	3.0	110 - 107	107 - 99	99 - 0
HI07	HI07-PZM005	Hollow Stem Auger	9/20/2000	Yes <sup>^</sup>	570209.3	1458426.3	Steel Riser	14.0	4.0	10.0	14 - 2	2 - 1	1 - 0
	HI07-PZM032	Direct Push	10/3/2001	No	570205.3	1458417.7	Steel Riser	42.0	31.0	11.0	42 - 31	31 - 30	30 - 0
	HI07-PZM094	-	-	No	570205.4	1458421.8	-	TD > 100*	-	-	-	-	-
TM02	TM02-PZM009	Hollow Stem Auger	3/27/1983	Yes	569243.2	1457354.1	Steel Riser	21.0	11.0	10.0	21 - 6	6 - 5	5 - 0
	TM02-PZM028	Hollow Stem Auger	3/23/1983	No	569236.3	1457350.9	Steel Riser	41.0	31.0	10.0	41 - 22	22 - 2	2 - 0
	TM02-PZM062	Direct Push	9/27/2001	No	569231.9	1457346.9	Steel Riser	70.0	60.0	10.0	70 - 58	58 - 56	56 - 0
TM04	TM04-PZM006	Hollow Stem Auger	3/25/1983	Yes	569438.3	1458568.1	Steel Riser	21.0	11.0	10.0	21 - 6	6 - 2	2 - 0
	TM04-PZM028	Hollow Stem Auger	3/25/1983	No	569442.0	1458581.1	Steel Riser	45.5	35.5	10.0	45.5 - 22	22 - 2	2 - 0
	TM04-PZM056	Direct Push	9/25/2001	No	569445.5	1458592.8	Steel Riser	67.0	57.0	10.0	67 - 57	57 - 56	56 - 0
TM06	TM04-PZM082	-	-	No	569432.9	1458554.3	-	TD = 92	-	-	-	-	-
	TM06-PZM008	Hollow Stem Auger	9/29/2000	Yes	569583.6	1459391.8	Steel Riser	19.0	9.0	10.0	19 - 7	7 - 6	6 - 0
TM08	TM06-PZM034	Direct Push	9/25/2001	No	569574.0	1459387.6	Steel Riser	45.0	35.0	10.0	45 - 35	35 - 34	34 - 0
	TM08-PZM007	Hollow Stem Auger	9/26/2001	Yes	570381.0	1459731.8	Steel Riser	14.0	4.0	10.0	14 - 3	3 - 2	2 - 0
	TM08-PZM038	Direct Push	9/19/2001	No	570378.3	1459724.5	Steel Riser	45.0	35.0	10.0	45 - 35	35 - 34	34 - 0

<sup>^</sup>HI02-PZM006 and HI07-PZM005 have already been sampled during the Parcel B8 investigation, and will not be repeated.

No historical construction information is available for Well 1 through Well 5 (discovered during well inspections).

See Well Inspection Forms for additional information.

TD = Total Depth. The historic screen interval is not available, but the total measured depth is provided (based on well inspection).

\*The water-level probe used to gauge the well had only 100 feet of tape. The depth to bottom exceeded 100 feet.

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## **APPENDIX E**

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**Parcel B14 Sampling Plan Summary  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Table 1 - Soil Sampling Summary

Source Area Description	REC & Finding/ SWMU/ AOC	Figure or Drawing/ Reference	Rationale	Number of Locations	Sample Locations	Boring Depth*	Sample Depth*	Analytical Parameters: Soil Samples
Humphrey Impoundment (w/ general coverage)	REC 2A Finding 61 SWMU 190	DCC	Investigate potential impacts related to the Humphrey Impoundment. This area was used to receive wastewater from various steel processing areas, as a sludge dewatering area, and for storage of process slurry and other materials. These materials may have contained hazardous substances and/or petroleum products.	17	B14-002, B14-003, and B14-006 through B14-020 (correspond to former BERA samples)	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 <sup>^</sup> , SVOC, Metals, DRO/GRO, O&G, PCBs (0-1')
				14	B14-021 through B14-028			
			<b>Total:</b>	31				

Soil Borings Sampling Density Requirements (from **Worksheet 17 - Sampling Design and Rationale**)  
*No Engineered Barrier (41-70 acres): 1 boring per 2 acres with no less than 27.*  
 No Engineered Barrier (60.4 acres) = **31 borings required, 31 proposed**

\* If Geoprobe<sup>®</sup> access is restricted by standing water, soft surface conditions, or other encountered Site conditions, a hand auger will be used to complete the boring to a depth of 5 feet bgs or groundwater (thus excluding the 9-10' bgs sample).

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 Organics  
 O&G - Oil and Grease  
<sup>^</sup>VOCs are only collected if the PID reading exceeds 10 ppm  
 bgs - Below Ground Surface

**Parcel B14 Sampling Plan Summary  
Former Sparrows Point Steel Mill  
Sparrows Point, Maryland**

Table 2 - Groundwater Sampling Summary

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†
Permanent Groundwater Wells			Structural conditions are described in the Well Inspection Forms ( <b>Appendix C</b> ), and summarized in the Existing Well Construction Information Table ( <b>Appendix D</b> ).	7	HI02-PZM006 <sup>^</sup> , HI04-PZM006, HI07-PZM005 <sup>^</sup> , TM02-PZM009, TM04-PZM006 TM06-PZM008, and TM08-PZM007	Boring Depths listed in Existing Well Construction Information Table ( <b>Appendix D</b> ).	Screen Intervals listed in Existing Well Construction Information Table ( <b>Appendix D</b> ).	VOC, SVOC, Metals (total/dissolved), Cyanide (total/available), Oil & Grease, DRO/GRO
			<b>Total:</b>	7				

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

Metals analysis will include dissolved hexavalent chromium

<sup>^</sup>HI02-PZM006 and HI07-PZM005 have already been sampled during the Parcel B8 investigation, and will not be repeated.

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## **APPENDIX F**

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# HEALTH AND SAFETY PLAN

## SPARROWS POINT TERMINAL SPARROWS POINT, MARYLAND

Prepared by:



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Environmental Engineers

January 2015

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**ATTACHMENTS**

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Attachment A – EAG Acknowledgment Form

Attachment B – MSDSs

## **1.0 INTRODUCTION**

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### **1.1 Background**

The Sparrows Point Terminal site has historically been a steel making facility. It is located in Baltimore County, Maryland in the southeast corner of the Baltimore metropolitan area (approximately 9 miles from the downtown area), on the Sparrows Point Peninsula in the Chesapeake Bay watershed. The facility occupies the entire peninsula and is bounded to the west by Bear Creek; to the south by Patapsco River; and to the east by Jones Creek, Old Road Bay and residential areas of the City of Edgemere. The facility is bounded to the north by the Sparrows Point Country Club. The site is approximately 3,100 acres in size.

Pennsylvania Steel built the furnace at Sparrows Point in 1887 and the first iron was cast in 1889. Bethlehem Steel Corporation (BSC) purchased the facility in 1916 and enlarged it by building additional and plating facilities. BSC filed for bankruptcy in 2001. A series of entities has owned the site between then and now: the International Steel Group (ISG), Mittal Steel, ISG Sparrows Point, LLC, Severstal Sparrows Holding LLC, which was renamed to Severstal Sparrows Point, LLC, RG Steel Sparrows Point, LLC, and then a joint venture to Sparrows Point LLC (SP) and HRE Sparrows Point LLC. Most recently, in 2014, the property and assets were sold to Sparrows Point Terminal LLC (SPT). Environmental liability was retained by SP and work is currently being conducted by EnviroAnalytics Group, LLC (EAG) on behalf of SP.

- In addition to the current environmental investigation and remediation being conducted onsite by EAG and their consultants, there are other entities conducting work on the facility. Demolition of the remaining structures is currently ongoing at the site, and those contractors are being managed by SPT.
- The purpose of this document is to provide an overall health and safety plan (HASP) for EAG personnel and EAG directed contractors who are engaging in environmental investigation and remediation activities onsite. EAG directed contractors will also be expected to have their own Health and Safety Program, and they may opt to draft their own site specific HASP, provided it meets the requirements in this HASP.

### **1.2 Historic Operations**

Steel manufacturing involves handling vast amounts of raw material including coke, iron ore, limestone and scrap steel, as well as recovering byproducts and managing waste materials. The operations listed below either were or are currently performed at the Sparrows Point Facility.

- Iron and steel production
- Coal chemical recovery system
- Other byproducts recovery systems
- Wastewater treatment systems
- Solid waste management
- Air pollution control



A number of site-specific environmental and hydrogeologic investigations have been prepared for the Sparrows Point facility. For the purposes of this HASP, information was obtained from the “Special Study Area Release Site Characterization” completed in 2001 by CH2MHill, as well as additional documents submitted since that time. There are five separate Special Study Areas as put forth in the Consent Decree:

- Humphrey Impoundment,
- Tin Mill Canal/Finishing Mills Areas,
- Coke Oven Area,
- Coke Point Landfill, and
- Greys Landfill.

Contaminated soils and groundwater may be present at the site. This plan was prepared based on an assessment of hazards expected to be present and a review of data from the previous site investigations and groundwater sampling events.

During the current investigations and remedial efforts, all related work will be performed in accordance with the requirements of this HASP and Occupational Safety and Health Administration (OSHA) regulations as defined in 29 Code of Federal Regulations (CFR) 1910.120 and 1926.65.

## **2.0 PURPOSE, SCOPE AND ORGANIZATION**

This section describes the purpose, scope and organization of this HASP and the health and safety responsibilities of EAG, their employees, and their subcontractors involved in the field investigation and remediation activities at the Sparrows Point facility.

### **2.1 Scope**

Field investigation and remediation activities for this project may include, but are not limited to:

- Groundwater sampling and monitoring,
- Groundwater and remediation well installation,
- Groundwater and remediation well repairs,
- Groundwater and remediation well closure and abandonment,
- Surface water sampling,
- Sediment sampling,
- Soil boring and subsurface soil sampling,
- Soil excavations for remedial purposes,
- Installation and operation of remediation systems for soil, soil vapor, and groundwater,
- Decommissioning and closure of remediation systems,
- Soil excavations for remedial purposes,
- Insitu soil mixing/soil stabilization,
- Exsitu soil mixing/soil stabilization,
- Dredging operations along Tin Mill Canal,
- Insitu chemical and/or biological injections, and
- Recovery of non-aqueous phase liquids (NAPL)

When EAG personnel are providing oversight of subcontractors, they will attend the safety and health briefings held by the contractor. EAG personnel will follow the requirements of this HASP, as well as any potentially more stringent requirements of the contractor’s health and safety plan.

When EAG personnel are conducting tasks on their own, with or without subcontractors, they will follow the requirements of this HASP. EAG contractors, such as drillers, will also be required to follow the requirements of this HASP, as well as any more stringent requirements of the contractor’s health and safety plan.

All EAG field personnel, including subcontractors to EAG, will be required to read and understand this HASP and agree to implement its provisions. All site personnel will sign the Acknowledgement Form included in **Attachment A** stating that they have read, understood, and agree to abide by the guidelines and requirements set forth in this plan.

**2.2 Organization of Document**

This HASP includes health and safety procedures for all generally anticipated project field activities. This plan also meets the OSHA requirements contained in the CFR, specifically 29 CFR 1910.120 and 29 CFR 1926, by including the following items:

- A description of staff organization, qualifications and responsibilities (Section 2.3),
- Hazard analysis (Section 3.0),
- Health hazard information (Section 4.0),
- Personal protective equipment (PPE), including available first aid, emergency, and safety equipment (Section 5.0),
- Employee and subcontractor training and standard safety procedures (section 6.0),
- Exposure monitoring plan (Section 7.0),
- Medical surveillance (Section 8.0),
- Site control measures and decontamination procedures for personnel and equipment (Section 9.0),
- Emergency response and contingency procedures (section 10.0), and
- Material Safety Data Sheets (MSDSs) for chemicals used on-site (**Attachment B**).

**2.3 EAG Health and Safety Personnel**

Personnel responsible for implementing this HASP include:

<b>EAG Contacts for Sparrows Point Project Work</b>	
VP Remediation, Russ Becker	(314) 686-5611
Senior Project Manager, James Calenda	(314) 620-3056
Senior Project Engineer, Elizabeth Schlaeger	(314) 307-1732
Josh Burke – Field Operations Manager	(314) 686-5623
Project Field Team Members, Jeff Wilson and Bill Trentzsch	(314) 620-3135, (314) 686-5598

## 3.0 HAZARD ANALYSIS

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This section outlines the potential hazards related to the field activities listed in Section 2.1.

### 3.1 Hazard Analysis

The field activities planned for this project pose potential health and safety hazards for field team members. This section describes the hazards associated with the above-listed field activities. Detailed chemical, physical, and biological hazards information is provided in Section 4.0 (Health Hazard Information).

Hazards to which employees and subcontractors may be exposed to as a result of the above-listed activities include potential chemical exposures, lacerations, excessive noise, thermal stress, lifting of excessive weight or bulk, hand tools and heavy equipment, drilling and slips, trips and falls.

#### 3.1.1 Chemical Hazards

Potential exposures to chemicals in the soil or groundwater include the possibility of dermal exposure (contact and/or absorption), inhalation of chemical contamination that may be encountered during sampling or during equipment decontamination activities, or ingestion of contaminants if good personal hygiene practices are not followed.

Benzene, naphthalene, and various metals are the major contaminants that have been identified in groundwater during previous investigations at the site. In addition, light NAPL (LNAPL – benzene, in particular) and dense NAPL (DNAPL – naphthalene, in particular) have also been identified or are heavily suspected in various locations in the Coke Oven Area. Dissolved metals the chemicals of concern primarily located in the area of Tin Mill Canal and the Rod and Wire Mill Area. Treatment chemicals, such as sulfuric acid, are currently being used in remediation systems. All appropriate MSDS sheets will be reviewed that apply to the investigation or remedial tasks being conducted. MSDS sheets are located in **Attachment B**. It should be noted that this is a dynamic document: should any additional chemicals be introduced or discovered, the MSDS sheets will be added to **Attachment B**, as necessary.

#### 3.1.2 Physical Hazards

The potential physical hazards associated with field activities include:

- Excessive lifting
- Slips, trips, and falls
- Working at heights
- Exposure to extreme outside temperatures and weather
- Equipment hazards
- Drilling Hazards
- Noise
- Dust and fumes
- Injury from tools, equipment, rotating parts
- Electrical hazards
- Buried and overhead hazards
- Work over water
- Driving to, from, and around the site (including working in trafficked areas)

Additional hazards may be encountered based on the various task at hand. It will be the responsibility of the site manager, with the help of field staff, to identify and address any additional hazards on a “per task or job” basis. A Job Safety Analyses (JSA) may need to be conducted prior to the start of various tasks. Safety meetings will be conducted with all staff in attendance, before the start of any new task or when any significant personnel or other changes (such as a swift change in weather, for example) occur. Updated information relating to physical hazards will be presented during these meetings in an effort to familiarize the crew with potential hazards, discuss new situations, and determine how the associated risks can be reduced. Further, good housekeeping practices will be enforced to preclude other risks resulting from clutter and inattention to detail. In addition, internal field audits will be randomly conducted to ensure adherence to all procedures are being followed.

### **3.1.3 Biological Hazards**

Biological hazards that may be encountered when conducting field activities include the following:

- Poisonous snakes and spiders
- Ticks and tick-borne diseases
- Stinging insects such as chiggers, bees, wasps, etc.
- Various viruses and diseases spread via animal to human contact such as West Nile virus or rabies
- Various viruses and diseases spread via human to human contact such as colds or the flu
- Dermal contact with poison ivy, oak, and/or sumac
- Bloodborne pathogens when administering first aid

First aid kits will be available on-site. It is crucial to note that any site personnel who has significant allergies should communicate that information to the field team they are working with, along with the location of their auto-injector pen (such as an Epi-Pen) for use in case of going into anaphylactic shock from something that would cause such a reaction (like a bee sting, for example). Personnel who suffer from such allergies are responsible for providing their own auto-injector devices as those are typically prescription based as well as specific to their particular allergy.

## **4.0 HEALTH HAZARD INFORMATION**

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This section provides chemical hazard information for those potentially hazardous materials expected to be present at the facility. Potential physical and biological hazards are also discussed in this section.

### **4.1 Chemical Hazards**

Exposure to chemicals through inhalation, ingestion, or skin contact may result in health hazards to field workers. Hazards associated with exposure will be evaluated using OSHA Permissible Exposure Limits (PELs) and the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs). Each of these values are 8-hour, time-weighted averaged (TWAs) above which an employee cannot be exposed. EAG may also use the National Institute of Occupational Safety and Health (NIOSH) Recommended Exposure Limits (RELs) where applicable. Although the OSHA PELs are the only exposure limits enforceable by law, the most stringent of exposure limits will be used as the EAG-enforced exposure criteria during field activities.

The following is a summary of the potential hazards created by the compounds that may be encountered during field activities. Data from sampling of groundwater wells was reviewed to identify potential contaminants at the site. Contaminants of concern may include benzene, toluene, ethylbenzene and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), phenols, metals and water treatment chemicals. Table 4-1 contains chemical information and exposure limits for various chemicals that may be expected to be present in the investigation and remediation efforts. During the recovery of NAPL, the major contaminants of concern are benzene and naphthalene. It is possible that carbon monoxide may also be encountered from the use of various internal combustion engines (vehicular or otherwise); however, it is anticipated that since any such engine will be used outdoors, it is not expected that concentrations of concern will accumulate. With the use of any such engine, the engine should be positioned such that site personnel are upwind of the engine exhaust.

If any chemicals are brought on-site, MSDS must be made available and added to **Attachment B**. Personnel must be trained in the hazards and use of chemicals.

**Table 4-1  
Chemical Contaminants of Potential Concern**

<b>Chemical Name Synonyms (trade name)</b>	<b>Exposure Limits</b>	<b>Characteristics</b>	<b>Route of Exposure</b>	<b>Symptoms of Exposure</b>
Benzene	PEL: 1PPM REL: 0.1 CA TLV: 0.5PPM STEL: 1PPM (NIOSH) Skin: YES	Colorless to light-yellow liquid with aromatic odor. LEL: 1.2% UEL: 7.8% VP: 75mm Fl.P: 12°F	INH ABS ING CON	Irritation of eyes, skin, nose, respiratory system, giddiness, headache, nausea, fatigue, anorexia, dermatitis, bone marrow depression
Ethylbenzene	PEL: 100PPM REL: 100PPM TLV: 100PPM STEL: 125PPM IDLH: 800PPM Skin: NO	Colorless liquid with an aromatic odor. LEL: 0.85 UEL: 6.7% IP: 8.76EV VP: 7mm Fl.P: 55°F	INH ING CON	Irritation of eyes, skin, mucous membranes; headache; dermatitis
1,1 dichloroethane	PEL: 100PPM REL: 100PPM TLV: 100PPM STEL: NA IDLH: 3000PPM Skin: NO	Colorless, oily liquid with a chloroform-like odor. LEL: 6.2% UEL: 16% IP: 11.05EV Vp: 64mm Fl.P: 56°F	INH ING CON	Irritation of eyes, CNS depression, liver, kidney, lung damage
Phenol	PEL: 5PPM REL: 5PPM, 15.6PPM (C) TLV: 5PPM STEL: NA IDLH 250PPM Skin: YES	Colorless to light pink crystalline solid with a sweet, acrid odor. LEL: 1.8% UEL: 5.9% IP: 8.12EV Vp: 0.08mm Fl.P: 175°F	INH ING CON ABS	Irritated eyes, nose, throat, anorexia, weakness, muscular ache, pain, dark urine, cyanosis, liver, kidney damage, skin burns, dermatitis, tremor, convulsions, twitch
Naphthalene	PEL: 10PPM REL: 10PPM TLV: 10PPM STEL: 15PPM IDLH: 250PPM Skin: YES	Colorless to brown solid with an odor of mothballs LEL: 0.9% UEL: 5.9% IP: 8.12EV Vp: 0.08mm Fl.P: 174°F	INH ABS ING CON	Irritation of eyes, headache, confusion, excitement, malaise, nausea, vomiting, abdominal pain, irritated bladder, profuse sweating, jaundice, hematuria, renal shutdown, dermatitis, optical neuritis, corneal damage
Toluene	PEL: 200PPM, 300PPM (C) REL: 100PPM TLV: 20PPM STEL: 150PPM IDLH: 500PPM Skin: YES	Colorless liquid with a sweet, pungent benzene-like odor. LEL: 1.1% UEL: 7.1% IP: 8.82EV VP: 21MM Fl.P: 40°F	INH ABS ING CON	Irritation of eyes, nose, fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation, nervousness, muscle fatigue, insomnia, dermatitis, liver, kidney damage
Xylenes	PEL: 100PPM REL: 100PPM TLV: 100PPM STEL: 150PPM IDLH: 900PPM Skin: NO	Colorless liquid with an aromatic odor. LEL: 0.9% UEL: 6.7% IP: 8.40EV VP: 5MM Fl.P: 88°F	INH ABS ING CON	Irritated eyes, nose, respiratory system, headache, fatigue, dizziness, confusion, malaise, drowsiness, incoherence, staggering gait, corneal vacuolization, anorexia, nausea, vomiting, abdominal pain, dermatitis

Chemical Name Synonyms (trade name)	Exposure Limits	Characteristics	Route of Exposure	Symptoms of Exposure
Styrene	PEL: 100PPM, 200PPM (C) REL: 50PPM TLV: 20PPM STEL: 40PPM IDLH: 700PPM Skin: NO	Colorless to yellow, oily liquid with a sweet, floral odor. LEL: 0.9% UEL: 6.8% IP: 8.40eV VP: 5MM F.I.P: 88°F	INH ABS ING CON	Irritated eyes, nose, respiratory system, headache, fatigue, dizziness, confusion, malaise, drowsiness, weakness, narcosis, dermatitis
Chlorodiphenyl (54% chlorine) (11097-69-1)	PEL: 0.5mg/m <sup>3</sup> REL: 0.001mg/m <sup>3</sup> TLV: 0.5mg/m <sup>3</sup> STEL: N/A IDLH: 5mg/m <sup>3</sup> (CA) Skin: YES	Colorless to pale yellow viscous liquid with a mild hydrocarbon odor. LEL: NA UEL: NA IP: UNKNOWN VP: 0.00006MM F.I.P: NA	INH ABS ING CON	Irritated eyes, chloracne, liver damage, reproductive effects (carcinogen)
Polynuclear aromatic hydrocarbons (PAHs) (coal tar pitch volatiles) (65996-93-2)	PEL: 0.2mg/m <sup>3</sup> REL: 0.1mg/m <sup>3</sup> TLV: 0.2 mg/m <sup>3</sup> STEL: N/A IDLH: 80mg/m <sup>3</sup> (CA) Skin: NO	The pitch of coal tar is black or dark brown amorphous residue that remains after the redistillation process. LEL: N/A UEL: N/A IP: VARIES VP: VARIES F.I.P: VARIES	INH CON	Direct contact or exposure to vapors may be irritating to the eyes. Direct contact can be highly irritating to the skin and produce dermatitis. Exposure to vapors may cause nausea and vomiting. A potential human carcinogen.
Arsenic (inorganic)	PEL: 0.01mg/m <sup>3</sup> REL: NONE TLV: 0.5 mg/m <sup>3</sup> STEL: N/A IDLH: 5mg/m <sup>3</sup> (CA) Skin: NO	Silver-gray or tin-white brittle odorless solid. Air odor threshold: N/D.	INH ABS CON ING	Symptoms include ulceration of nasal septum, gastrointestinal disturbances, respiratory irritation and peripheral neuropathy. Potential occupational carcinogen.
Barium	PEL: 0.5mg/m <sup>3</sup> REL: 0.5mg/m <sup>3</sup> TLV: 0.5mg/m <sup>3</sup> STEL: N/A IDLH: 50mg/m <sup>3</sup> Skin: NO	White, odorless solid. Air odor threshold: N/D.	INH ING CON	Irritated eyes, skin, upper respiratory system, skin burns, gastroenteritis, muscle spasm, slow pulse, cardiac arrhythmia
Cadmium (elemental)	PEL: 0.005mg/m <sup>3</sup> REL: CA TLV: 0.01mg/m <sup>3</sup> STEL: N/A IDLH: 9mg/m <sup>3</sup> (CA) Skin: NO	Silver-white, blue-tinged lustrous, odorless solid. Air odor threshold: N/D.	INH ING	Symptoms include pulmonary edema, cough, tight chest, head pain, chills, muscle aches, vomiting and diarrhea. Potential occupational carcinogen.
Chromium (Metal)	PEL: 1.0mg/m <sup>3</sup> REL: 0.5mg/m <sup>3</sup> TLV: 0.5mg/m <sup>3</sup> STEL: N/A IDLH: 250mg/m <sup>3</sup> Skin: NO	Blue-white to steel-gray lustrous, brittle, hard odorless solid. Air odor threshold: N/D.	INH ING CON	Symptoms may include irritated eyes and skin, lung fibrosis.
Chromium (Chromium III inorganic compounds)	PEL: 0.5mg/m <sup>3</sup> REL: 0.5mg/m <sup>3</sup> TLV: 0.5mg/m <sup>3</sup> STEL: N/A IDLH: 25mg/m <sup>3</sup> Skin: NO	Varies depending on specific compound.	INH ING CON	Irritation of eyes, sensitivity dermatitis

Chemical Name Synonyms (trade name)	Exposure Limits	Characteristics	Route of Exposure	Symptoms of Exposure
Copper	PEL: 1mg/m <sup>3</sup> REL: 1mg/m <sup>3</sup> TLV: 1mg/m <sup>3</sup> STEL: N/A IDLH: 100mg/m <sup>3</sup> Skin: NO	Reddish, lustrous, malleable, odorless solid	INH ING CON	Irritation of eyes, nose, pharynx, nasal septum perforations, metallic taste, dermatitis
Lead (Elemental & Inorganic as Pb)	PEL: 0.05mg/m <sup>3</sup> RELO.1mg/m <sup>3</sup> TLV: 0.05mg/m <sup>3</sup> STEL: N/A IDLH: 100mg/m <sup>3</sup> Skin: NO	A heavy, ductile soft gray solid. Air odor threshold: N/D.	INH ING CON	Accumulative poison may cause weakness, insomnia, facial pallor, anorexia, malnutrition, constipation, abdominal pain, anemia, gingival lead line, paralysis of wrists and ankles, hypertension and kidney disease.
Nickel	PEL: 1mg/m <sup>3</sup> REL: 0.015mg/m <sup>3</sup> (Ca) TLV: 0.1mg/m <sup>3</sup> STEL: N/A IDLH: 10mg/m <sup>3</sup> Skin: NO	Lustrous, silvery, odorless solid. Air odor threshold: N/A VP: 0mm	INH CON ING	Sensitivity dermatitis, allergic asthma, pneumonitis
Vanadium pentoxide dust	PEL: 0.5mg/m <sup>3</sup> (C) REL: 0.05mg/m <sup>3</sup> (C) TLV: 0.05mg/m <sup>3</sup> STEL: N/A IDLH: 35mg/m <sup>3</sup> Skin: NO	Yellow-orange powder or dark gray, odorless flakes dispersed in air. VP: 0mm	INH ING CON	Irritated eyes, skin, throat, green tongue, metallic taste, eczema, cough, fine rales, wheezing, bronchitis
Zinc oxide	PEL: 5mg/m <sup>3</sup> REL: 5mg/m <sup>3</sup> TLV: 2mg/m <sup>3</sup> STEL: 10mg/m <sup>3</sup> IDLH: 500mg/m <sup>3</sup> Skin: NO	White, lustrous solid	INH	Metal fume fever, chills, muscular ache, nausea, fever, dry throat, cough, weakness, metallic taste, headache, blurred vision, low back pain, vomiting, fatigue, malaise
Sulfuric Acid (water treatment chemical)	PEL: 1mg/m <sup>3</sup> TLV: 0.2mg/m <sup>3</sup> Skin: YES	Oily, colorless to slightly yellow, clear to turbid liquid	IHN ABS ING CON	Can cause irritation or corrosive burns to the upper respiratory system, lung irritation, pulmonary edema, burns to mouth throat and stomach, erode teeth, skin lesions
Antiscale (water treatment chemical)	PEL: 1mg/m <sup>3</sup> TLV: 0.2mg/m <sup>3</sup> Skin: YES	Liquid, colorless, clear	IHN ABS ING CON	May cause severe skin burns and eye damage, can cause cancer, fatal if inhaled, may damage organs through prolonged exposure
Antifoam (water treatment chemical)	N/E	Liquid emulsion, white, opaque	IHN ABS ING CON	May be harmful to skin, if inhaled and if swallowed
<b>Gases</b>				
Carbon Monoxide	PEL: 50PPM REL: 35PPM TLV: 25PPM STEL: 200PPM (C) IDLH: 1200PPM Skin: NO	Colorless, odorless gas LEL: 12.5% UEL: 74% IP: 14.01eV VP: >35atm Fl.P: N/A	INH	Headache, rapid breathing, nausea, tiredness, dizziness, confusion



**NOTES:**

OSHA PEL	Occupational Safety and Health administration Final Rule Limits, Permissible Exposure Limit for an eight-hour, time-weighted average
ACGIH TLV	American Conference of Governmental Industrial Hygienists, Threshold Limit Value for eight-hour, time-weighted average
STEL	Short-term Exposure Limit for a 15-minute, time-weighted average
NIOSH IDLH	National Institute for Occupational Safety and Health, Immediately Dangerous to Life or Health concentration
PPM	Part of vapor or gas per millions parts of air by volume at 25°Celsius and 760mm Hg mg/m <sup>3</sup> (milligram of substance per cubic meter of air)
CA	NIOSH has identified numerous chemicals that it recommends to be treated as potential or confirmed human carcinogens.
(C)	The (ceiling) concentration that should not be exceed during any part of the working exposure.
Skin	Refers to the potential contribution to the overall exposure by the cutaneous (absorption) route, including mucous membranes and eye, either by airborne or more particularly by direct contact with the substance.
UEL	Upper Explosive Limit – the highest concentration of a material in air that produces an explosion in fire or ignites when it contacts an ignition source.
LEL	Lower Explosive Limit – the lowest concentration of the material in air that can be detonated by spark, shock, fire, etc.
INH	Inhalation
ABS	Skin absorption
ING	Ingestion
CON	Skin and/or eye contact

## 4.2 Physical Hazards

Field employees and subcontractors may be exposed to a number of physical hazards during this project. Physical hazards that may be encountered include the following:

- Heat and cold stress
- Lifting hazards
- Slips, trips and falls
- Working around heavy equipment
- Drilling hazards
- Noise
- Use of hand and power tools
- Buried hazards
- Electrical hazards
- Underground and overhead utilities
- Working over water
- Travel to and from site

### 4.2.1 Heat Stress

Local weather conditions may produce an environment that will require restricted work schedules in order to protect employees from heat stress. The Project Manager or the Field Lead Team Member will observe workers for any potential symptoms of heat stress. Adaptation of work schedules and training on recognition of heat stress conditions should help prevent heat-related illnesses from occurring. Heat stress controls will be stated at 70°F for personnel in protective clothing and at 90°F for personnel in regular work clothing. Heat stress prevention controls include:

- Allow workers to become acclimatized to heat (three to six days)
- Provide rest breaks in a shaded or air-conditioned break area
- Provide sun screen to prevent sun burn
- Provide drinking water and electrolyte-replenishing fluids
- Keep ice readily available to rapidly cool field team members

The following Heat Stress Index should be used as a guide to evaluate heat stress situations. If the Heat Stress exceeds 105 degrees Fahrenheit, contact the project manager prior to conducting work for detailed guidance.

<b>Heat Stress Index</b>									
Temp. °F	Relative Humidity								
	10%	20%	30%	40%	50%	60%	70%	80%	90%
105	98	104	110	120	132				
102	97	101	108	117	125				
100	95	99	105	110	120	132			
98	93	97	101	106	110	125			
96	91	95	98	104	108	120	128		
94	89	93	95	100	105	111	122		
92	87	90	92	96	100	106	114	122	
90	85	88	90	92	96	100	106	114	122
88	82	86	87	89	93	95	100	106	115
86	80	84	85	87	90	92	96	100	109
84	78	81	83	85	86	89	91	95	99
82	77	79	80	81	84	86	89	91	95
80	75	77	78	79	81	83	85	86	89
78	72	75	77	78	79	80	81	83	85
76	70	72	75	76	77	77	77	78	79
74	68	70	73	74	75	75	75	76	77

**NOTES: Add 10° F when protective clothing is being used; Add 10° F when in direct sunlight**

HSI Temp	Category	Injury Threat
Above 130° F	Extreme Danger	No work unless emergency exists. Contact Cardno ATC RSC and Corporate Risk Management Department prior to proceeding. Heat cramps or exhaustion likely, heat stroke possible if exposure is prolonged and there is physical activity.
105° to 130° F	Danger	Contact RSC prior to proceeding. Requires strict adherence to ACGIH Heat Stress Guidelines, including use of on-site WBGT equipment. Heat cramps or exhaustion likely, heat stroke possible if exposure is prolonged and there is physical activity.
90° to 105° F	Extreme Caution	Heat cramps or exhaustion likely, heat stroke possible if exposure is prolonged and there is physical activity.
80° to 90° F	Caution	Heat cramps or exhaustion likely, heat stroke possible if exposure is prolonged and there is physical activity.
Below 80° F	Normal Range	Typical conditions for time of year. Little or no danger under normal circumstances. As always, anticipate problems and work safely.

#### **4.2.2 Cold Stress**

Frostbite and hypothermia are two types of cold injury that personnel must be protected against during the performance of field duties. The objective is to prevent the deep body temperature from falling below 96.8° F and to prevent cold injury to body extremities. Two factors influence the development of a cold injury the ambient temperature, and wind velocity. Reduced body temperature will very likely result in reduced mental alertness, reduction in rational decision making, and/or loss of consciousness with the threat of death.

- 

Use appropriate cold weather clothing when temperatures are at or below 40° F as exposed skin surfaces must be protected. These protective items can include facemask, hand wear, and foot wear. Workers handling evaporative solvents during cold stress conditions will take special precautions to avoid soaking gloves and clothing because of the added danger of prolonged skin contact and evaporative cooling. Personnel will wear protective clothing appropriate for the level of cold and planned physical activity. The objective is to protect all parts of the body, with emphasis on the hands and feet. Eye protection against glare and ultraviolet light should be worn in snowy and icy conditions.

The work rate should not be so great as to cause heavy sweating that could result in wet clothing. If heavy work must be done, opportunities for rest breaks will be provided where workers have the opportunity to change into dry clothing. Conversely, plan work activities to minimize time spent sitting or standing still. Rest breaks should be taken in a warm, dry area. Windbreaks can also be used to shield the work area from the cooling effects of wind.

If extreme cold-related weather conditions occur, EAG field personnel and subcontractors will take the following precautions:

- Wear adequate insulated clothing when the air temperature drops below 40°F
- Reduce work periods in extreme conditions to allow adequate rest periods in a warm area
- Change clothes when work clothes become wet
- Avoid caffeine (which has diuretic and circulatory effects)

#### **4.2.3 Lifting Hazards**

Field personnel may be exposed to injury caused by lifting heavy objects and various pieces large or unwieldy pieces of equipment. All field team members will be trained in the proper methods for lifting heavy and/or large equipment and are cautioned against lifting objects that are too heavy or too big for one person. Proper lifting techniques include the following:

- Keep feet approximately shoulder width apart
- Bend at the knees
- Tighten abdominal muscles
- Lift with the legs
- Keep the load close to the body
- Keep the back upright
- Use the buddy system for larger or heavy pieces of equipment

All drums will be staged using an approved drum dolly or other appropriate equipment. Proper care will be taken in the use of this equipment. Healthy employees with no medical restrictions may lift and carry a maximum of 50 pounds using proper lifting and carrying techniques. This recommended weight limit may be reduced depending on physical and workplace factors.

#### **4.2.4 Slips, Trips and Falls**

The most common hazards that will be encountered during field activities will be slips, trips and falls. Field team members are trained to use common sense to avoid these hazards such as using work boots/safety shoes with nonskid soles. When working on slippery surfaces, tasks will be planned to decrease the risk of slipping via avoiding the slippery areas, if possible, or utilizing engineering controls. Engineering controls may involve the placement of supplemental material such as boards, gravel, or ice melt should be utilized to mitigate slippery conditions. Other engineering controls may involve the use of footgear traction control devices. Employees and subcontractors will avoid slippery surfaces, use engineering controls as appropriate, not hurry, and maintain good housekeeping.

#### **4.2.5 Buried Hazards**

Whenever the ground is penetrated, the potential for contacting buried hazards exists. During the planning/mobilization phase, prior to drilling or other excavation activities, EAG personnel and/or their contractors will establish the location of underground utility lines (gas, electrical, telephone, fiber optic cable, etc.) and/or substructures or other potential buried hazardous items. This may be conducted by review of historic utility and substructure maps, private utility locates, ground penetrating radar, or other technologies. If there is any evidence of utilities or subsurface objects/structures, drilling or excavation activities may be offset. If activities cannot be offset, measures will be taken to remove, disconnect, and/or protect the utilities and/or subsurface structures and/or objects. Every reasonable effort will be made to clear the area of intrusive work prior to fieldwork being started.

#### **4.2.6 Electrical Hazards**

It may be possible that overhead power lines will be in proximate locations during drilling or excavation activities. At least a 20 foot clearance must be maintained from overhead power lines. No equipment such as drill rigs or dump trucks can be moved while masts or buckets are in the upright position. Field personnel and subcontractors performing electrical work are required to be appropriately trained to work on the electrical systems in question prior to start of work. Authorization from project management personnel is required prior to any electrical work or work near overhead power lines. . When using extension cords, all field workers will ensure that they are in good working condition, are correctly rated for use, and do not contain abrasions such that bare wires could be exposed to the environment. Extension cords will not be used in wet areas without plugging the extension cord into a ground fault circuit interrupter (GFCI). GFCIs will detect a short circuit and cut power.

#### **4.2.7 Heavy Equipment Operations**

Heavy equipment must be operated in a safe manner and be properly maintained such that operators and ground personnel are protected.

### Requirements for Operators

- Only qualified, trained, and authorized operators are allowed to operate equipment
- Seat belts will be used at all times in all equipment and trucks
- Operators will stop work whenever ground personnel or other equipment enter their work area; work will resume only when the area has been cleared
- No personnel may ride on equipment other than the Authorized Operator
- No personnel may be carried or lifted in the buckets or working “arms” of the equipment
- Spotters will be used when ground personnel are in the vicinity of heavy equipment work areas and/or when an operator is backing equipment near other structures or congested area

### Requirements for Ground Personnel

- All ground personnel must wear orange protective vests in work areas with any operating heavy equipment
- Ground personnel will stay outside of the swing zone or work area of any operating equipment
- Ground personnel may only enter the swing or work area of any operating equipment when:
  - They have attracted the operators attention and made eye contact
  - The operator has idled the equipment down and grounded all extensions
  - The operator gives the ground personnel permission to approach
- Ground personnel shall never walk or position themselves between any fixed object and running equipment or between two running pieces of equipment

### Equipment

- Maintain operations manuals at the site for each piece of equipment that is present and in use
- Ensure operators are familiar with the manual for the equipment and operate the equipment within the parameters of the manual
- Ensure all equipment is provided with roll-over protection systems
- Verify that seatbelts are present and functional in all equipment
- Prohibit the use of equipment that has cab glass which is broken or missing
- Ensure that backup alarms are functional on all trucks and equipment
- Require all extensions such as buckets, blades, forks, etc. to be grounded when not in use
- Require brakes to be set and wheels chocked (when applicable) when not in use

Daily inspections of equipment are required using a Daily Heavy Equipment Safety Checklist. Equipment deemed to be unsafe as a result of daily inspection will not be used until required repairs or maintenance occurs. During maintenance/repair, ensure that motors are turned off, all extensions are grounded or securely blocked, controls are in a neutral position, and the brakes are set.

#### **4.2.8 Drilling and Excavation Safety**

Prior to any intrusive work, as previously mentioned, the location of underground utilities, such as sewer, telephone, gas, water and electric lines must be determined and plainly staked. Necessary arrangements must be made with the utility company or owner for the protection, removal or relocation of the underground utilities. In such circumstances, excavation will be done in a manner that

does not endanger the field personnel engaged in the work or the underground utility. Utilities left in place will be protected by barricading, shoring, suspension or other measures, as necessary.

The use of unsafe or defective equipment is not permitted. Equipment must be inspected regularly. If found to be defective, equipment must be immediately removed from use and either repaired or replaced prior to resuming work with that equipment. Field personnel will be familiar with the location of first-aid kits and fire extinguishers. Telephone numbers for emergency assistance must be prominently posted and kept current.

Good housekeeping conditions will be observed in and around the work areas. Suitable storage places will be provided for all materials and supplies. Pipe, drill rods, etc. must be securely stacked on solid, level sills. Work surfaces, platforms, stairways, walkways, scaffolding, and access ways will be kept free of obstructions. All debris will be collected and stored in piles or containers for removal and disposal.

The area of the site to undergo intrusive activity must be walked over with the drillers and/or heavy equipment operators to identify all work locations, as well as making sure all marked utilities are seen by those doing the intrusive work.

#### **Drilling Specific Concerns:**

In areas where utilities have been identified or may be suspected, pre-drilling clearance such as hand-augering, hand excavation (with shovels or post-hole diggers), or air-knifing to a depth of at least 5' below ground surface (BGS) may be required. The Project Manager will provide guidance in those instances on what has been determined as an acceptable means of clearing drilling locations. It should be noted that if the soil lithology changes to gravel within those 5 feet, that may be an indication of a utility trench and extreme caution should be taken OR the drilling location should be offset 5 horizontal feet from the original location. Should 3 consecutive attempts be made without success to offset a particular drilling location, the field personnel should stop and contact the Project Manager for further instruction.

Special precaution must be taken when using a drill rig on a site within the vicinity of electrical power lines and other overhead utilities. Electricity can shock, burn and cause death. When overhead electrical power lines exist at or near a drilling site, all wires will be considered dangerous.

A check will be made for sagging power lines before a site is entered. Power lines will not be lifted to gain entrance. The appropriate utility company will be contacted and a request will be made that it lift or raise cut off power to the lines.

The area around the drill rig will be inspected before the drill rig mast (derrick) is raised at a site in the vicinity of power lines. The minimum distance from any point on the drill rig to the nearest power line will be determined when the mast is raised or is being raised. The mast will not be raised and the drill rig will not be operated if this distance is less than 20 feet, because hoist lines and overhead power lines can be moved toward each other by the wind.

Before the mast is raised, personnel will be cleared from the immediate area, with the exception of the operator and a helper, when necessary. A check will be made to ensure safe clearance from energized power lines or equipment (minimum 20-foot clearance). Unsecured equipment must be removed from the mast and cables, mud lines and catline ropes must be adequately secured to the mast before raising. After it is raised, the mast must be secured to the rig in an upright position with steel pins.

#### **Excavation Specific Concerns:**

For excavation work, entry into an excavated area or trench will only be allowed when:

- Shoring, sloping, and spoil pile placement is in conformance with 29 CFR 1926 Subpart P, and
- Personal protection and monitoring, as detailed in this HASP, has been implemented.

All excavation contractors are required to provide an OSHA trained and certified Competent Person. Daily inspections of excavations, the adjacent areas, and protective systems shall be made by the Competent Person for evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the Competent Person prior to the start of work and as needed throughout each shift. Inspections shall also be made after every rainstorm or other hazard increasing occurrence. All inspections made by the Competent Person should be recorded in the field log book. No personnel shall perform work in a trench or excavation that contains accumulated water (any accumulated water will need to be either pumped out until the trench/excavation is dry, or the accumulated water is allowed to disperse naturally). Each employee in an excavation shall be protected from cave-ins by an adequate protective system except when excavations are made entirely in stable rock or the excavation is less than 5 feet in depth and examination by the Competent Person provides no indication of a potential cave-in. Protective systems consist of sloping or benching, use of trench boxes or other shielding mechanisms, or the use of a shoring system in accordance with the regulations.

When mobile equipment is operated adjacent to an excavation and the operators/drivers do not have a clear and direct view of the edge of the excavation, a warning system such as barricades, hand or mechanical signals, or spotters are required.

Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard to personnel in the excavation. All temporary spoil piles shall be kept at least 2 feet away from the edge of the excavation. Spoil piles should be placed to channel rainwater or other run-off water away from the excavation.

All excavations deeper than 4 feet deep and which have the potential to have a hazardous atmosphere or oxygen deficient atmospheres (less than 19.5% oxygen) must be tested to ensure safe working conditions, prior to entry.

#### **4.2.9 Use of Hand Tools and Portable Power Tools**

Hand tools will be kept in good repair and used only for their designed purposes. Proper protective eyewear will be worn when using hand tools and portable power tools. Unguarded sharp-edged or

pointed tools will not be carried in field personnel's pockets. The use of tools with mushroomed heads, split or defective handles, worn parts, or other defects will not be permitted. Inspect all tools prior to start-up or use to identify any defects. Tools that have become unsafe will be reconditioned before reissue or they will be discarded and replaced. Throwing or dropping of tools from one level to another will not be permitted; rather, containers and hand lines will be used for transporting tools from one level to another if working at heights.

Non-sparking tools will be used in atmospheres where sources of ignition may cause fire or explosion. Electric-powered shop and hand tools will be of the double-insulated, shockproof type, or they will be effectively grounded. Power tools will be operated only by designated personnel who are familiar and trained with their use. When not in use, tools will not be left on scaffolds, ladders or overhead working surfaces.

#### **4.2.10 Noise**

Exposure to high levels of noise may occur when working near drill rigs or other heavy equipment. Also, depending upon where the work is being performed, local equipment (e.g., airports, factory machines, etc.) may produce high levels of noise. A good indication of the need for hearing protection is when verbal communication is difficult at a distance of 2-3 feet. Personnel will be provided with ear plugs and/or earmuffs when exposed to noise levels in excess of the 8-hour Permissible Exposure Limit (PEL) of 90 decibels.

#### **4.2.11 Work Zone Traffic Control**

Personnel will exercise caution when working near areas of vehicular traffic. Work zones will be identified by the use of delineators (traffic cones, flags, vehicles, DOT approved devices, temporary or permanent fencing, and/or safety barrier tape). Personnel will wear reflective vests when working in these areas. Depending on frequency, proximity, and nature of traffic, a flag person may also be utilized.

#### **4.2.12 Work Over Water**

If personnel will be working near, above or immediately adjacent to or within 6 feet of water that is 3 feet or more deep or where water presents a drowning hazard (e.g., fast-moving stream, water body with a soft bottom), employees are required to a U.S. Coast Guard (USCG) approved personal flotation device (PFD). All PFDs must have reflective tape on them to facilitate visibility. Employees must inspect PFDs daily before use for defects. Do not use defective PFDs.

#### **4.2.13 Vehicle Use**

Personnel must use caution when driving to, from, and across the site, paying special attention to other site traffic, as well as weather and road conditions. Heavy equipment should be transported during non-rush hour traffic.

### **4.3 Biological Hazards**



Site activities on this Site may expose workers to other hazards such as poisonous plants, insects, animals, and indigenous pathogens. Protective clothing and respiratory protection equipment, and being capable of identifying poisonous plants, animals, and insects, can greatly reduce the chances of exposure. Thoroughly washing any exposed body parts, clothing, and equipment will also protect against infections. Avoiding contact with biological hazards is the best way to prevent potential adverse health effects. Recognition of potential hazards is essential. When avoidance is impractical or impossible, PPE, personal hygiene, good general health and awareness must be used to prevent adverse effects. If working in wooded/grassy areas, use appropriate insect repellants (containing DEET and/or Permethrin) and apply them per the manufacturers' directions. The following is a list of biological hazards that may be encountered while performing field activities at the project site and surrounding areas:

BIOLOGICAL HAZARD and LOCATION	CONTROL MEASURES
<p><b>Snakes</b> typically are found in underbrush and tall grassy areas.</p>	<p>If you encounter a snake, stay calm and look around; there may be other snakes. Turn around and walk away on the same path you used to approach the area. If a person is bitten by a snake, wash and immobilize the injured area, keeping it lower than the heart if possible. Seek medical attention immediately. <b>DO NOT</b> apply ice, cut the wound or apply a tourniquet. Carry the victim or have him/her walk slowly if the victim must be moved. Try to identify the snake: note color, size, patterns and markings.</p>
<p><b>Poison ivy, poison oak and poison sumac</b> typically are found in brush or wooded areas. They are more commonly found in moist areas or along the edges of wooded areas.</p>	<p>Become familiar with the identity of these plants. Wear protective clothing that covers exposed skin and clothes. Avoid contact with plants and the outside of protective clothing. If skin contacts a plant, wash the area with soap and water immediately. If the reaction is severe or worsens, seek medical attention.</p>
<p>Exposure to <b>bloodborne pathogens</b> may occur when rendering first aid or CPR, or when coming into contact with medical or other potentially infectious material or when coming into contact with landfill waste or waste streams containing such infectious material.</p>	<p>Training is required before a task involving potential exposure is performed. Exposure controls and personal protective equipment (PPE) area required. Hepatitis B vaccination must be offered before the person participates in a task where exposure is a possibility.</p>
<p><b>Bees, spiders and other stinging insects</b> may be encountered almost anywhere and may present a serious hazard particularly to people who are allergic.</p>	<p>Watch for and avoid nests. Keep exposed skin to a minimum. Carry a kit if you have had allergic reactions in the past and inform the Project Manager and/or the buddy. If a stinger is present, remove it carefully with tweezers. Watch for allergic reaction; seek medical attention if a reaction develops.</p>
<p><b>Ticks</b> typically are in wooded areas, bushes, tall grass and brush. Ticks are black, black and red or brown and can be up to one-quarter inch in size.</p>	<p>Avoid tick areas. Wear tightly woven, light-colored clothing with pants tucked into boots or socks. Spray outside of clothing with insect repellent containing permethrin. Check yourself for ticks often. If bitten, carefully remove tick with tweezers. Report the bit to the Project Manager. Look for symptoms of Lyme</p>

	disease that include a rash that looks like a bulls eye and chills, fever, headache, fatigue, stiff neck or bone pain. If symptoms appear, seek medical attention.
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## **5.0 PERSONAL PROTECTIVE EQUIPMENT**

PPE ensembles are used to protect employees and subcontractors from potential contamination hazards while conducting project field activities. Level D is expected to be used for most activities at the site. The following subsections describe the PPE requirements for the field activities.

### **5.1 Level D Protection**

When the atmosphere contains no known hazards and work functions preclude splashes, immersions or the potential for unexpected inhalation of or contact with hazardous levels of any chemicals, Level D protection may be used. Level D does not provide respiratory protection and only provides minimal dermal protection. The Level D ensemble consists of the following:

- Work clothes that may consist of a short or long-sleeved cotton shirt and cotton pants, cotton overalls, or disposal overalls such as Tyvek™
- Steel-toe/steel-shank work boots
- Safety glasses with side shields
- Hearing protection, as necessary
- Hand protection, as appropriate
- Hard hat when working around overhead equipment such as a drilling rig
- Reflective vests when working around heavy equipment or near roadways
- Body harness and life vests when working on or within 6 feet of bulkheads, at heights, or in 3 feet or more of standing water (such as in Tin Mill Canal)

### **5.2 Modified Level D Protection**

This is the level of protection that may be needed for material handling, sampling operations, and operation of remediation equipment when splash hazards are present. Modified Level D protection consists of the following:

- Disposable overalls such as polyethylene-coated Tyvek™
- Latex, vinyl, or nitrile inner gloves when handling liquids/fluids
- Nitrile outer gloves (taped to outer suit)
- Chemical-protective over-boots (taped to outer suit)
- Steel-toe/steel-shank, high-ankle work boots
- Hard hat with face shield
- Safety glasses with side shields or goggles
- Dust Mask
- Hearing protection, as necessary

### **5.3 Level C Protection**

Level C protection will be used when site action levels are exceeded and respiratory protection is required. The Level C ensemble consists of Modified Level D with the following modifications:

- Half or full-face air-purifying respirator (APR) equipped with appropriate cartridges/filters
- Chemical resistant clothing such as poly-coated Tyvek™
- Inner and outer nitrile gloves
- Chemical-resistant safety boots or boot covers to go over safety boots

Upgrading or downgrading the level of protection used by EAG employees and subcontractors is a decision made by EAG based on the air monitoring protocols presented in Section 7.0 for respiratory protection, the potential for inhalation exposure to toxic chemicals, and the need for dermal protection during the activity.

### **5.4 First Aid, Emergency and Safety Equipment**

The following first aid, emergency and safety equipment will be maintained onsite at the work area:

- A portable eye wash
- Appropriate ABC-type fire extinguishers (minimum of 10 pounds; remediation systems to house individual 20 pound extinguishers) carried in every vehicle used during field operations
- Industrial first-aid kit (one 16-unit that complies with American National Standards Institute (ANSI) Z308A for every 25 persons or less)
- Bloodborne pathogen precaution kit with CPR mouth shield
- Instant cold packs
- Soap or waterless hand cleaner and towels
- American Red Cross First Aid and CPR Instruction Manuals

## **6.0 PERSONNEL TRAINING AND STANDARD SAFETY PROCEDURES**

Employees must have received, at the time of project assignment, a minimum of 40 hours of initial OSHA health and safety training for hazardous waste site operations. Personnel who have not met the requirements for the initial training will not be allowed in the Exclusion Zone (EZ) or Contamination Reduction Zone (CRZ) of any active work area. A copy of each subcontractor site worker's 40-hour training certificate must be sent to the Project Manager for review prior to the start of the site work.

The 8-hour refresher training course must be taken at a minimum of once per year. At the time of the job assignment, all site workers must have received 8 hours of refresher training within the past year. This course is required of all field personnel to maintain their qualifications for hazardous waste site work. A copy of each subcontractor site worker's most recent 8-hour refresher training certificate must be sent to the Project Manager for review prior to the start of the site work.

A site-specific safety orientation will be conducted by EAG for all EAG employees and subcontractors engaged in fieldwork.

### **6.1 Onsite Safety, Health and Emergency Response Training**

The OSHA 1910.120 standard requires that site safety and health training be provided by a trained, experienced supervisor. “Trained” is defined to mean an individual that has satisfactorily completed the OSHA 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) course and 8-hour site supervisor training. Training will be offered at the time of the initial task assignment and/or whenever new chemicals are introduced into the workplace. Training will include all applicable regulatory requirements, location of the program, inventory and MSDSs, chemicals used and their hazards (chemical, physical, and health), how to detect the presence or release of chemicals, safe work practices and methods employees can take to protect themselves from hazards, how to read MSDSs and site or project specific information on hazard warnings and labels in use at that location. All training will be documented and training certificates will be kept in the employee’s permanent training file. All applicable training will also require annual refreshers.

EAG qualified personnel must also provide safety meetings.

## **6.2 Standard Safety Procedures**

This section describes the standard safety procedures that EAG requires all onsite personnel to follow during site activities.

### **6.2.1 General Safety Work Practices**

All onsite employees and subcontractors will observe the following general safety work practices:

- Health and safety tailgate briefings will occur to introduce new activities, any new safety issues, and emergency egress routes for work areas; any significant change (added personnel, change in scope, or change in field conditions) will trigger a second (or more) tailgate meeting to address whatever change occurred
- No food, drink, or tobacco products will be allowed in the Exclusion and Contamination Reduction Zones
- Loose clothing, hair, and/or jewelry will not be permitted around moving or rotating equipment
- The “buddy system” will be implemented as necessary whereby a pair of co-workers watches out for each other while in proximity of potential physical work hazards
- Good housekeeping of all work areas will be maintained on an ongoing basis

### **6.2.2 Hand Safety**

This standard is intended to protect employees from activities that may expose them to injury. This standard provides information on recognizing those conditions that require personal protective equipment (PPE) or specific work practices to reduce the risk of hand injury.

Appropriate gloves must be worn when persons work with materials or equipment that presents the potential for hand injury due to sharp edges, corrosives, flammable and irritating materials, extreme temperatures, splinters, etc.

#### Guidelines for Working With and Around Equipment (Hand Tools, Portable Powered Equipment):

- Employees should be trained in the use of all tools.
- Keep hand and power tools in good repair and use them only for the task for which they were designed.

- Inspect tools before use and remove damaged or defective tools from service.
- Operate tools in accordance with manufacturer's instructions.
- Do not remove or bypass a guarding device for any reason.
- Keep surfaces and handles clean and free of excess oil to prevent slipping.
- Wear proper PPE, including gloves, as necessary.
- Do not carry sharp tools in pockets.
- Clean tools and return to the toolbox or storage area upon completion of a job.
- Before applying pressure, ensure that wrenches have a good bite.
- Brace yourself by placing your body in the proper position so you will not fall if the tool slips.
- Make sure hands and fingers have sufficient clearance in the event the tool slips.
- Always pull on a wrench, never push.
- When working with tools overhead, place tools in a holding receptacle when not in use.
- Do not throw tools from place to place or from person to person, or drop tools from heights.
- Inspect all tools prior to start-up or use to identify any defects.
- Powered hand tools should not be capable of being locked in the ON position.
- Require that all power-fastening devices be equipped with a safety interlock capable of activation only when in contact with the work surface.
- Do not allow loose clothing, long hair, loose jewelry, rings, and chains to be worn while working with power tools.
- Do not use cheater pipes.
- Make provisions to prevent machines from restarting through proper lockout/tagout.

Guidelines for using Cutting Tools:

- Always use the specific tool for the task. Tubing cutters, snips, self-retracting knives, concealed blade cutters, and related tools are task specific and minimize the risk of hand injury. For more information about cutting tools, see Supplemental Information A.
- Fixed open-blade knives (FOBK) are prohibited from use. Examples of fixed open-blade knives include pocket knives, multitools, hunting knives, and standard utility knives.
- When utilizing cutting tools, personnel will observe the following precautions to the fullest extent possible:
  - Use the correct tool and correct size tool for the job.
  - Cut in a direction away from yourself and not toward other workers in the area.
  - Maintain the noncutting hand and arm toward the body and out of the direction of the cutting tool if it were to slip out of the material being cut.
  - Ensure that the tool is sharp and clean; dirty and dull tools typically cause poor cuts and more hazard than a sharp, clean cutting tool.
  - Store these tools correctly with covers in place or blades retracted, as provided by the manufacturer.
  - On tasks where cutting may be very frequent or last all day (e.g., liner samples), consider Kevlar® gloves in the PPE evaluation for the project.
  - Do not remove guards on paper cutters.

### **6.2.3 Respiratory Protection**

Based on air monitoring, an upgrade to Level C protection may be indicated. Half or full-face APRs will be utilized for protection against organic vapors and particulates. All employees required to wear respirators will be need to be medically cleared, in writing to do so by a qualified Occupational Physician.

All respirator users must be trained before they are assigned a respirator, annually thereafter, whenever a new hazard or job is introduces and whenever employees fail to demonstrate proper use or knowledge. Training will include, at a minimum:

- Why the respirator is necessary and what conditions can make the respirator ineffective.
- What limitation and capabilities of the respirators area.
- How to inspect, put on and remove and check the seals of the respirator.
- What respirator maintenance and storage procedures are.
- How to recognize medicals signs and symptoms that may limit or prevent effective use of the respirator.
- The engineering and administrative controls being used and the need for respirators.
- The hazards and consequences of improper respirator use.
- How to recognize and handle emergency situations.

Training will be documented and training certificated will be kept in the employee's permanent training file.

### **6.2.4 Personal Hygiene Practices**

The field team must pay strict attention to sanitation and personal hygiene requirements to avoid personal contamination. The following instructions will be discussed and must be followed:

- During field activities, never put anything in the mouth, including fingers
- All employees must wash their hands, forearms, face, and neck before eating drinking, smoking or using the restroom
- Smoking is prohibited except in designated areas outside the work zone
- At the end of the day, all employees will shower upon returning home or to their hotel

### **6.2.5 Electrical Safety**

All extension cords used onsite must be heavy-duty variety and must be properly grounded. All temporary circuitry must incorporate the use of GFCI devices. Refer to electrical safety in Section 4.2.6, Electrical Hazards.

### **6.2.6 Fire Safety**

All flammable liquids will be used only for their intended purpose and stored and handled only in approved containers. Portable containers must be the approved red safety containers equipped with flame arresters and self-closing lids. All transfers of flammable liquids must be made with the containers grounded or bonded. Also, gasoline containers will be clearly labeled and storage areas (if

applicable) will be posted with “No Smoking” signs. Fire extinguishers will be stalled in all areas that contain flammable liquids.

### **6.2.7 Illumination**

All work is planned for daylight hours. No special requirements are anticipated. However, should any work take place outdoors after daylight hours, suitable lighting will be required. In addition, suitable lighting is to be provided in each remediation system building or enclosure.

### **6.2.8 Sanitation**

Potable water and toilet facilities will be provided in compliance with the OSHA 1926.51 standard. Any container used to distribute drinking water shall be clearly marked and not used for any other purpose. Single drinking cups will be supplied, both a sanitary container for the unused cups and a receptacle for disposed of the used cups will also be provided. Port-a-johns will be provided since there are no sanitary sewers on the job site.

## **7.0 EXPOSURE MONITORING PLAN**

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This section describes air and personnel monitoring protocols, sampling methods, and instrumentation to be used, as well as the methods and frequency of sampling instrument calibration and action levels for potential work site hazards. When engaged in air monitoring, EAG personnel and subcontractors must use the forms to record air monitoring data and air monitoring instrument calibration records. All monitoring records/forms are to be maintained in the project file by the EAG Project Manager.

### **7.1 Air Monitoring**

The surveillance program is established to detect changes in the ambient air at the work site and to ensure the continuing safety of the work zones and adequacy of the level of worker protection. During field activities, the designated field team member will monitor the work site for combustible gas concentrations and organic vapors. Calibration of all monitoring equipment will be performed in accordance with the manufacturers’ procedures by trained EAG employees and subcontractors. The Project Manager, Project Field Team Leader or representative will be notified immediately of any contaminant levels that could trigger an upgrade in PPE or cause a suspension of site activities.

- One or more of the following direct-reading instruments may be used to aid in this determination. Photoionization Detectors (PID) and Flame Ionization Detectors (FID) will measure non-specific organic gases and vapors. Combustible Gas Indicators (CGI) will detect explosive atmospheres. Oxygen (O<sub>2</sub>) meters will detect fluctuations in oxygen concentrations. These instruments should be calibrated or bump tested daily and whenever the readings may be erratic. All readings should be recorded in the field log books.

Air monitoring results obtained from the breathing zone during field activities will be recorded in field log books. All such records will also include the location, date/time, weather conditions, person monitored, background concentration, and identification of specific contaminant whenever possible. Air monitoring information will be utilized to evaluate personnel exposure and assess the appropriateness of PPE for Site conditions.

#### **7.1.1 Combustible Gas and Oxygen Deficiency/Excess Monitoring**

Explosive gas concentrations are not expected to exceed 10% of the lower explosive level (LEL). Should the need be indicated for monitoring, action guidance for the CGI/O2 meter responses is contained in **Table 7-1**.

**Table 7-1**

<b>CGI/Oxygen Meter Action Levels</b>	
<b>Meter Response</b>	<b>Action</b>
CGI response 0%-10% LEL	Continue normal operations
CGI initial response >10% and <20% LEL	Eliminate all sources of ignition from the work area; temporarily retreat from work area for 15-30 minutes and then monitor area again
CGI response after 15-30 minute retreat >10% and <20% LEL	Retreat from work area; notify Project Manager
CGI response >20%	Discontinue operations; retreat from work area
Oxygen level <19.5%	Retreat from work area; notify Project Manager
Oxygen level >23.5%	Retreat from work area; notify Project Manager

### 7.1.2 Organic Vapor Concentrations

Real-time monitoring for organic vapor concentrations in the breathing zone and down hole will be conducted during field operations (installation of groundwater monitoring and groundwater sampling by EAG and EAG subcontractor personnel) with a PID equipped with a 10.2- or 11.7-electron volt (eV) probe. The PID will be taken into the field and operated during site activities where contaminated soil and/or groundwater may be present. Air monitoring will be conducted during well installation and when a well is opened for groundwater measurements. Measurements will be made at the well head and personnel breathing zones where activities are being performed. The instrument will be calibrated using ultra-high purity air and isobutylene vapor of known concentration before and after use each day. Air calibration measurements will be documented in writing and kept in the project file. Action guidance for PID responses is contained in **Table 7-2**.

**Table 7-2**

<b>Action Levels for General Site Work</b>	
<b>Meter Response in Breathing Zone (minimum of 3 minutes)</b>	<b>Action Required</b>
<5ppm above background	Use Level D PPE
>5ppm above background	Level C PPE, including half or full-face APR with organic vapor cartridges/P100 filters
>50ppm above background	Stop work
<b>Action Levels for Handling NAPL</b>	
<b>Meter Response in Breathing Zone (minimum of 3 minutes)</b>	<b>Action Required</b>
<1ppm above background	Use Modified Level D PPE
>1ppm to <10ppm	Level C PPE, including half or full-face APR with organic vapor cartridges
>10ppm above background	Immediately withdraw; monitoring will continue until action levels will allow safe re-entry



If air concentrations of organic vapors are greater than 5 ppm above background in the breathing zone for a 3-minute period, personnel will stop work, retreat from site, and allow time (at least 15 minutes) for vapors to dissipate. If monitoring indicates that concentrations still exceed 5 ppm, workers will upgrade to Level C PPE. If monitoring indicates that concentrations exceed 50 ppm, work will be stopped until site conditions can be re-evaluated.

These action levels are based on the assumption that the major component of free product being recovered will be benzene or naphthalene.

Work involving NAPL recovery from monitoring wells will be conducted in Level C PPE. This level may be downgraded based on air monitoring data and actual field conditions. Downgrading of PPE must be approved by the PM and HSE staff. If ventilation is conducted, additional air monitoring will be performed to the resumption of work to determine the level of PPE required.

## **7.2 Physical Conditions Monitoring**

Site workers will be monitored by the Project Manager for signs of weather-related symptoms from exposure to excessive heat or cold.

Whenever the air temperature exceeds 70°F for personnel wearing chemical protective clothing or 90°F for personnel wearing regular work clothes, the Project Manager will assess conditions that may cause heat stress in site workers.

## **8.0 MEDICAL SURVEILLANCE**

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This section discusses the medical surveillance program, how the results are reviewed by a physician and how participation is documented.

### **8.1 Medical Surveillance Program**

All personnel who will be performing any task where potential exposure to hazardous material exists will undergo medical surveillance as outlined in OSHA 29 CFR 1910.120(f). All personnel performing tasks in the Exclusion Zone or Contamination Reduction Zone will be required to have passed the EAG medical surveillance examination (or equivalent), performed by a licensed Occupational Physician. The Project Manager will verify that all EAG and subcontractor personnel meet applicable OSHA medical surveillance requirements.

Applicable field employees will undergo an annual comprehensive medical examination, including a comprehensive health history, blood chemistry with complete blood count and differential, urinalysis, medical history, required chest x-rays, audiogram, pulmonary function testing, testing for heavy metals (as needed), and a physician's interpretation of each employee's medical surveillance examination, including the ability of the employee to wear a respirator. A comprehensive medical examination will be performed if an employee develops signs or symptoms indicating possible overexposure to hazardous substances and/or heat or cold stress.

### **8.2 Physician Review**

All medical surveillance and examination results are reviewed by a licensed physician who is certified in Occupational Medicine by the American Board of Preventive Medicine. EAG employee participation in the medical surveillance program is a part of their permanent medical record maintained in the employee's home office. A copy of the current medical clearance signed by the occupational health physician for all EAG employees must be maintained at the home office.

## **9.0 SITE CONTROL MEASURES AND DECONTAMINATION**

To provide for the protection of public health and safety and minimize the possibility of transferring hazardous substances from the site, contamination control procedures are required. These procedures consist of site control measures (which entail the delineation of work zones, communications, and site security) and decontamination procedures (which are necessary for both personnel and equipment). Contaminants that may be uncovered during sampling operations must not be transferred outside the work zone unless properly containerized, and must be removed from clothing, personnel, and equipment prior to relocation from that zone. This section discusses site control measures and decontamination procedures to be used during the collection of samples, the installation of soil borings and/or groundwater monitoring/remediation wells, excavations, and other intrusive work where contact with impacted soils and groundwater could occur by EAG and/or EAG subcontractor personnel.

### **9.1 Site Control Measures**

Site control can be achieved by effectively delineating the work zone, providing appropriate communication, and establishing site security.

#### **9.1.1 Work Zone Delineation**

To minimize the transfer of hazardous substances from the site and to ensure proper protection of employees and subcontractors, work zones will be established by the Field Project Team Leader. Applicable site work and the associated requirement for work zones will be determined by the Project Manager. The work area will be divided into an Exclusion Zone (EZ), a Contamination Reduction Zone (CRZ), and a Support Zone (SZ). A typical work zone delineation setup is shown as **Figure 9-1**, below.

##### *Exclusion Zone (EZ)*

Contamination does or could exist in this zone. Only properly authorized and trained individuals (refer to Section 6.0) wearing appropriate PPE will be allowed to enter and work in this zone. All people entering the EZ must wear, at a minimum, Level D protection. An entry and exit point for personnel and equipment will be established at the periphery of the EZ (between the EZ and the CRZ) to regulate the flow of personnel and equipment.

##### *Contamination Reduction Zone (CRZ)*

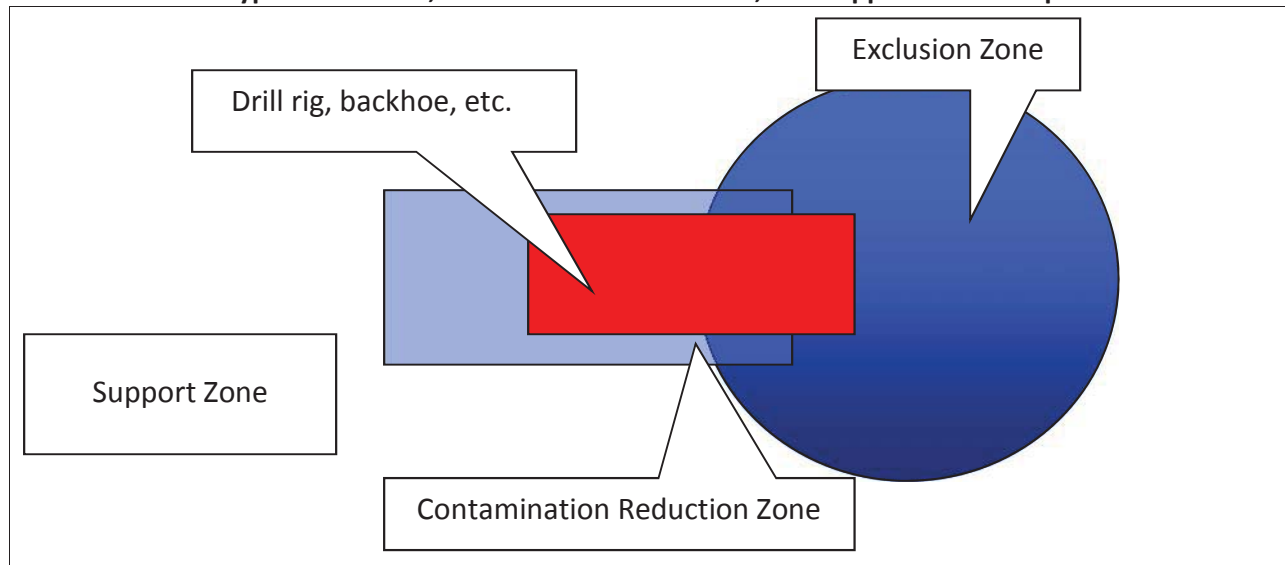
Between the EZ and the SZ will be the CRZ, which will provide a transition between the potentially contaminated EZ and the clean SZ. The CRZ (located upwind of the EZ, if possible) will be a corridor leading from the EZ and will serve as a buffer to further reduce the probability of the SZ becoming contaminated. Exit from the EZ will only be allowed through this CRZ. The CRZ will provide additional assurance that the physical transfer of contaminating substances on people, equipment, and/or in the air will be limited through a combination of decontamination and zone restrictions. Within this zone, employees and subcontractors may perform personal decontamination (e.g., face and hand washing), and certain PPE and small equipment decontamination. Buckets or wash basins for boot

washing and equipment decontamination will be stationed on a sheet of plastic (a minimum of 8 feet by 8 feet), the boundaries of which will constitute the CRZ.

*Support Zone (SZ)*

The Support Zone will be considered a non-contaminated area. The location of support facilities in the SZ will be upwind of the EZ (where possible) and readily accessible to the nearest road. The field office/support facilities, equipment vehicles, a first aid station and a visitors/personnel entry and exit log for the work site will be located in this zone. Potentially contaminated personal clothing, equipment and samples are not permitted in this zone unless properly containerized.

**Figure 9-1  
Typical Exclusion, Contamination Reduction, and Support Zone setups**



**9.1.2 Communications**

A loud and clear form of communication should be made available for Site personnel entering the work zones. Site communication may be in the form of hand signals, voice, or other communication devices. All forms of communication should be understood by all workers on the Site prior to starting work. Offsite communications may be conducted with mobile phones or walkie-talkies only if the atmosphere has been deemed non-explosive, and the person using the mobile device is in the SZ while placing the call, or inside the cab of a stationary vehicle.

**9.1.3 Site Security**

The Sparrows Point facility is not open to the public, and there is a strictly monitored main entrance with a security guard on duty at all times who only allows authorized personnel onto the Site. This limited access to the facility should eliminate the need for many requirements for specific site security except those needed to maintain work zone integrity, such as visible barriers around open excavations or EZs and CRZs. No site visitors will be allowed to travel unescorted by EAG or subcontractor personnel around the facility.

Once site visitors arrive at their intended work zone, they must check in with the Field Team Lead. If visitors are authorized to enter the CRZ and/or the EZ, they must have completed OSHA 1910.120 medical surveillance and training requirements (refer to Section 8.0 and Section 6.0). Visitors must wear

appropriate PPE before they will be allowed to enter the CRZ and/or the EZ. They must also be taken through this HASP during a brief tail-gate meeting and sign the Acknowledgement page in the back prior to engaging in any activities inside the CRZ or the EZ. All site visitors must follow the same site control measures and decontamination procedures as EAG personnel and subcontractors. The Project Manager must also be informed of each visitor's name, purpose for their visit, time of entry (and exit), location of tasks they wish to perform, whether they completed their intended task(s), and any other relevant information pertaining to their visit.

## **9.2 Decontamination Procedures**

Decontamination of employees, subcontractors, and equipment leaving the EZ will be performed to minimize human exposure to hazardous substances and to minimize the spread of contamination to surrounding areas. The purpose of the CRZ is to provide a location to perform limited personnel decontamination and certain PPE and small equipment decontamination.

### **9.2.1 Personnel Decontamination**

Persons leaving the EZ must pass through the CRZ and follow decontamination procedures before entering the SZ. Hand tools and other sampling equipment used in the EZ and reusable PPE (boots, safety glasses, etc.) will be appropriately cleaned prior to removal from the site each day. The step-by-step sequence for personnel decontamination is as follows:

- Remove boot covers (if used) at the boot washing station and place them in the disposal container provided
- Wash outer gloves and chemical resistant boots (if used) at the boot washing station
- Remove wrist tape (if used) and outer gloves and place them in the disposal container provided
- Remove ankle tape (if used) and disposable coveralls (if used) and place them in the disposal container provided
- Remove respirators (if used) and place each in designated locations in the CRZ
- Remove inner gloves and discard in the disposal container provided
- Wash hands and face and proceed to the SZ

Respirators must be fully decontaminated after each use by the personnel who previously wore them. All project employees and subcontractors are required to take a thorough soap and water shower in their home or motel room at the end of each workday. If monitoring or a general exposure assessment indicates that an employee has become contaminated, the employee or subcontractor will notify the EAG Project Manager and the Field Team Lead as soon as the contaminated state has been discovered.

### **9.2.2 Equipment Decontamination**

All equipment leaving the EZ must be decontaminated either within the CRZ or at the central decontamination area. Small equipment, such as hand tools, will be thoroughly decontaminated within the CRZ before being placed in the SZ. The field tools may be scrubbed visually clean using a detergent solution (Alconox/Liquinox) with water and a stiff, long-bristled scrub brush. Following the solution scrubbing, the tools may be rinsed with distilled water or isopropyl alcohol. Any vehicle working in an EZ will be decontaminated before leaving the site. The vehicle will be cleaned by sweeping excess soil and debris off the wheels. A high-pressure sprayer will then be used to wash the wheels, if necessary.

Each piece of equipment will be inspected after cleaning for any soil remaining on the tires or elsewhere. All vehicles will be cleaned to the satisfaction of the Field Team Lead or a designated assistant prior to entering the SZ or leaving the site. Employees or subcontractors performing decontamination shall wear the appropriate level of PPE (refer to Section 5.0).

### **9.2.3 Waste Management**

The Project Manager and the Field Team Leads will be responsible for overseeing the containerization and disposal of any field derived wastes. Contaminated or suspected contaminated field derived wastes shall be disposed of in accordance with all local, state, and/or federal regulations. Field derived wastes include decontamination rinse waters and other related decontamination generated wastes.

Soils and groundwater expected to be encountered during any sampling or intrusive work not to be contaminated, based on existing data, may be discharged to the ground surface in the immediate vicinity of the monitoring well. However, any known or suspected to be contaminated soil (in small quantities) or groundwater will be containerized for future removal, likely in 55-gallon drums or other approved storage vessels. Depending on the suspected contaminants, the recovered groundwater may be sent through one of the onsite groundwater treatment units. However, the treatment unit must be designed to address the contaminants of concern in the groundwater being treated. Otherwise, the liquid must be staged onsite for eventual offsite disposal at an approved facility.

Impacted soil, if in drums, will be staged in an area designated by the Project Manager or Field Team Lead for eventual disposal. For large excavations, where excavated soil is stockpiled, it may be necessary to place soils on plastic and cover with plastic to prevent any potential leachable runoff. The Project Manager and/or Field Team Lead will provide the proper guidance necessary for handling bulk soil piles.

Any NAPL recovered via remediation systems or manual recovery efforts will be properly containerized and either disposed of offsite as a recyclable material, if possible, or as a hazardous waste. The receiving facility must be an approved facility.

## **10.0 EMERGENCY RESPONSE AND CONTINGENCY PROCEDURES**

The objective of emergency response and contingency procedures is to ensure that effective actions are implemented in a timely manner to minimize or control the effects of adverse events (e.g., potential chemical exposures, personal injuries, fires/explosions, and spills/releases). The following subsections describe the basic emergency responses required should an emergency take place during field investigation or remedial effort activities.

### **10.1 Emergency Phone Numbers**

Emergency telephone numbers are listed in **Table 10-1**.

**Table 10-1  
Emergency Telephone Numbers and Agencies**

Agency	Telephone Number
Security (Sparrows Point facility)	(410) 388-7761
Ambulance	911
Fire	911
Occupational Health Clinic	(410) 633-3600
Hospital	(410) 550-0100 (general) (410) 550-0350 (emergency)
National Response Center	(800) 424-8802
Poison Control Center - Maryland	(800) 222-1222
EAG Main Contact	
VP Remediation, Russ Becker	(314) 686-5611
Project Manager, James Calenda	(314) 620-3056

## 10.2 Injury/Illness Treatment

In the event of illness or injury, the following steps will be taken:

- Evaluate the extent of injuries or seriousness of illness.
- When employees require urgent medical attention, call for emergency assistance. First aid should be administered while awaiting an ambulance or paramedics. All emergency medical treatment, other than first aid, will be administered by the local paramedics. **Table 10-1** lists site emergency telephone numbers. In all cases, critical injuries must be immediately referred for professional medical attention.
- For a non-critical injury/illness, first aid will be administered by onsite personnel. Anyone sustaining a non-critical injury/illness who continues to work will be monitored by the Field Team Lead for any signs of worsening condition, if it is deemed that the person can return to work by the Team Lead and Project Manager. Injured personnel who later suffer any worsening change in status are to immediately notify the Team Lead or the Project Manager.

### 10.3 Occupational Health Clinic and Hospital Information

#### Occupational Health Clinic

The Concentra Medical Center, located at 1833 Portal Street, Baltimore, MD, is the closest occupational health clinic, just over 6 miles away. A map to the clinic is included as **Figure 10-1**. The clinic should be used for non-emergency injuries and illnesses.

#### Directions:

From Sparrow's Point Road, turn left onto Wharf Road;  
Turn left onto MD-158 W/Bethlehem Blvd. (0.4 mile);  
Turn right onto MD-157 N/Peninsula Expy. (2.7 miles);  
Turn slight left onto Merritt Ave. (0.1 mile);  
Merritt Ave. becomes Sollers Point Rd. (0.3 mile);  
Turn left to stay on Sollers Point Rd (0.6 mile);  
Turn left onto Williams Ave. (0.2 mile);  
Turn right onto Dundalk Ave. (<0.1 miles);  
Turn left onto Chandlery St. (0.1 mile);  
Turn left onto Portal St.

**Figure 10-1: Health Clinic (Non-Emergency) Map**



## Hospital

The Johns Hopkins Bayview Hospital is the closest emergency facility, just over 9 miles away. The hospital is located at 4940 Eastern Avenue in Baltimore, MD. **Figure 10-2** is a map to this hospital. Maps are also included in **Attachment E**.

Directions:

From the Sparrows Point Industrial Complex, go north on Route 151 for approximately one mile.

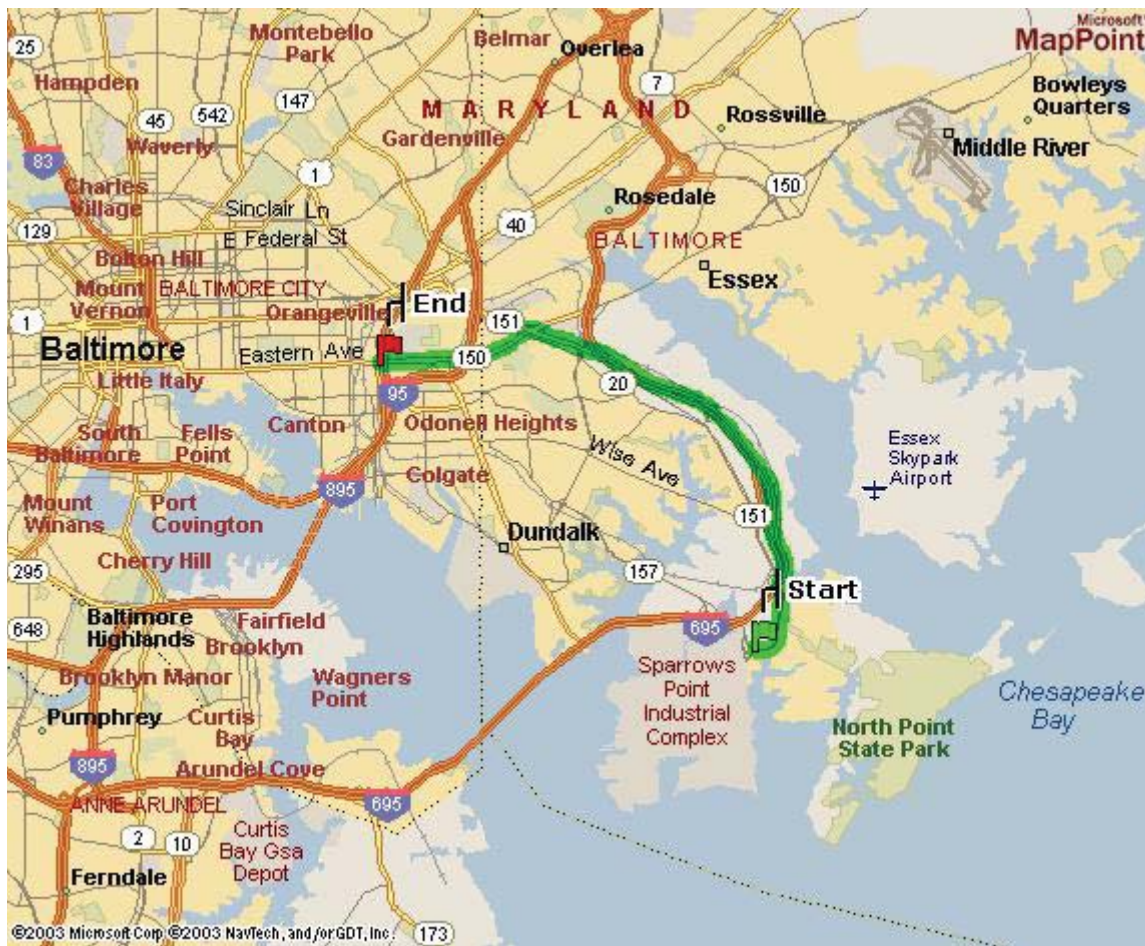
Take ramp (right) onto I-695 towards I-695/Essex.

At exit 40, take ramp (right) onto Route 151/North Point Boulevard North/MD 150;

Take ramp (right) onto Route 150 (Eastern Avenue).

Continue on Eastern Avenue to hospital on right.

**Figure 10-2: Hospital Map**



Prior to the start of field activities, the Project Field Team Leader will call to verify the telephone numbers and directions for the clinic and hospital, and then distribute location maps and the emergency telephone list to workers and vehicles.



#### 10.4 Accident and Emergency Medical Response

All field team members will be aware of the location of a first aid kit kept onsite. All vehicles used to transport injured persons to an offsite medical facility will be provided with directions and a map to the medical facility.

If treatment beyond first aid is required, emergency response personnel will be contacted for assistance and transport. Before beginning site activities, the Project Field Team Leader will ensure that each field team member knows where the nearest emergency medical facilities are and how to get there. The closest hospital will be used in cases of life-threatening emergencies at the direction of the Project Field Team Leader. The telephone numbers of the local emergency services will be available in the SZ, and the Project Field Team Leader will brief the field team on the procedures for calling for help in an emergency.

Site personnel will inform the Project Manager of any medications, allergies, or other medical information that may be applicable for their medical treatment. The Project Manager will supply this information to emergency response personnel, and will accompany the victim to the hospital, if possible.

##### 10.4.1 Chemical Exposure

In case of accidental overexposure to a hazardous material (groundwater, soil, and/or off-gas materials), guidelines shown in **Table 10-2** will be used.

**Table 10-2**  
**Chemical Exposure Guidelines**

Type of Overexposure	First Aid Guidelines
Skin Contact	Skin: Wash/rinse the affected area thoroughly with copious amounts of soap and water.
	Eyes: Eyes should be rinsed for at least 15 minutes following chemical contamination.
	Contact emergency response personnel if required, or transport victim to the hospital.
Inhalation	Move the victim to fresh air.
	Contact emergency response personnel if required, or transport victim to the hospital.
Ingestion	Contact Poison Control Center.
	Contact emergency response personnel, or transport victim to the hospital.

##### 10.4.2 Decontamination During a Medical Emergency

For minor medical problems or injuries, regular decontamination procedures will be followed. If emergency, life-saving first aid and/or medical treatment are required, regular decontamination procedures may need to be abbreviated or omitted:

- Do not attempt to wash or rinse an unresponsive victim unless the victim has been contaminated with an extremely toxic or corrosive chemical that may cause injury or loss of life to emergency response personnel.
- Outer garments can be removed if it does not cause a delay, interfere with treatment, or aggravate the problem.

- PPE can be cut away and respiratory protective equipment must always be removed.
- If contaminated clothing cannot be safely removed, then the victim should be wrapped in a blanket or plastic sheeting to prevent contamination to the inside of the ambulance and/or emergency response personnel.

The Project Manager or Field Team Lead will advise the medical staff as to the type of contamination possibly involved.

#### **10.4.3 Small or Incipient Fire**

A small fire is defined as a fire that can be extinguished with an available 20 pound type ABC fire extinguisher. An incipient fire is a fire that is small because it has just started. In the event of a small or incipient fire, the following minimum actions will be taken:

- Evacuate nearby personnel from the area, if possible, to an upwind location or to an area not affected by smoke or hazardous decomposition products if an upwind location is not feasible.
- Attempt to extinguish fire using portable fire extinguisher or by smothering.
- Contact emergency response personnel, as needed, for any injuries or exposures to hazardous decomposition products, or if fire cannot be put out.
- After the fire has been extinguished, or emergency response personnel have been contacted, notify the following project personnel:  
The Project Manager

#### **10.4.4 Large Fire or Explosion**

An explosion, large fire or a small fire which cannot be extinguished is beyond the first line capabilities of EAG personnel. Professional emergency response personnel would be needed to provide emergency assistance for these types of incidents. In the event of a large fire, explosion or a small fire that cannot be extinguished, the following minimum actions will be taken:

- Evacuate all personnel from the site, if possible, to an upwind location, or to an area not affected by smoke or hazardous decomposition products if an upwind location is not feasible
- Perform a quick role call to account for all site personnel
- Contact the fire department
- Contact emergency response personnel, as needed, for any injuries or exposures to hazardous decomposition products
- After emergency response personnel have been contacted, notify the following project personnel:  
The Project Manager

#### **10.4.5 Adverse Weather Conditions**

In the event of adverse weather conditions, the Project Manager will determine if work can continue without sacrificing the health and safety of site personnel. Threatening weather conditions will be monitored by the Project Manager and possibly the Team Lead via radio, television, internet, and/ or calls to the National Weather Service. Some of the conditions to be considered include:

- Potential for heat or cold stress
- Limited visibility

- Electrical storms
- Treacherous weather-related working conditions (i.e., heavy rainfall, icy conditions causing slippery footing hazards, etc.).

#### **10.4.6 First Aid for Heat Stress/Cold Stress**

First aid treatment for **heat cramps** includes shade, rest and fluid replacement. If available, the individual should drink electrolyte replacement fluids (e.g., Gatorade, Squincher or 10-K). The individual should recover within half an hour.

First aid treatment for **heat exhaustion** includes cooling the victim, elevating the feet and fluid replacement. If the individual has not recovered within half an hour, then transport the victim to the hospital for medical attention.

**Heat stroke** is a medical emergency, requiring the immediate cooling of the victim and transport to the hospital for medical treatment immediately.

First aid treatment for **frost nip** and **frostbite** includes covering the affected area with warmth and retreating to a warm area. If the individual has not recovered within half an hour, then transport the victim to the hospital for medical attention.

**Frozen tissue** is a medical emergency and the victim must receive medical attention immediately. Contact emergency response personnel immediately or transport the victim to the hospital.

First aid treatment of **mild hypothermia** includes using heat to raise the individual's body temperature. Heat may be applied to the victim in the form of heat packs, hot water bottles and blankets. If the individual has not recovered within half an hour, then transport the victim to the hospital for medical attention.

**Severe hypothermia** is a medical emergency and the victim must be transported to the hospital immediately. First aid treatment for severe hypothermia includes handling the victim very gently; rough handling may set off of an irregular heartbeat. **DO NOT** attempt to re-warm the severely hypothermic victim; re-warming may cause the development of an irregular heartbeat.

#### **10.4.7 Snake Bites**

If bitten, lower the extremity below the heart to reduce the poison's dissemination through the body. Remain calm, try to keep the heart rate reduced and seek medical attention immediately. Do not cut the wound or attempt to suck out the venom. Note any physical features (e.g., shape of head and color or pattern on body) of the snake.

#### **10.4.8 Animal Bites**

All bites should be treated as contaminated soft tissue injuries. Bites should be washed immediately with large amounts of soap and water. If soap is not available, flush the wound with water. The severity and onset of any infection is dependent upon the number of organisms (viruses or bacteria) introduced into the wound. Washing saliva out of the wound immediately will reduce the number of bacteria or viruses that can enter the tissue. Medical attention must be sought if rabies is suspected or the individual has not had a recent tetanus booster.

#### 10.4.9 Insect Bites and Stings

Emergency care for insect bites and stings depends on the individual's reaction. To treat a sting that results in a minor reaction, remove the stinger by gently scraping it off the skin. Do not try to grasp the sac or stinger, because this forces the remaining venom into the skin. Once the stinger has been removed, clean the wound and surrounding area. Apply cold packs to slow the absorption of the venom and reduce pain and swelling. The treatment for a severe reaction to insect stings includes the following:

- Confirm with the victim whether they are highly allergic to the insect that stung them
  - If victim has gone into anaphylactic shock, retrieve their epi pen or other auto-injector and administer per the directions as hastily as possible
- Assuming the victim remains conscious, ask them to refrain from moving around, and to lie down
- Immobilize the injured area immediately
- If an extremity is involved, remove any rings or watch
- Keep the affected part low, below the level of the heart
- Apply cold compresses to the affected area
- If possible, try to identify the type of insect that inflicted the sting
- Transport the victim to a medical facility immediately, continuing supportive measures en route.

All employees and subcontractors must report severe reactions to insect stings prior to the beginning of work to both the Project Manager and Field Team Lead.

#### 10.4.10 Poisonous Plants

**Decontamination:** Wash the skin immediately after contact with the plant. Proper washing may not be practical in the middle of the woods, but a product such as Technu or a small wash-up kit with prepackaged, alcohol-based cleansing tissues can be effective. Employees and subcontractors should not forget to wash contaminated clothing and clean up contaminated equipment prior to re-use.

**Treatment:** Options are as follows:

- Home treatment: Calamine lotion and an oatmeal bath (one cup to a tub full of water) can help relieve itching. To prevent secondary skin infection, scratching is not helpful and the fingernails should be cut to avoid damage to the skin. Over-the-counter hydrocortisone cream can decrease inflammation and itching; however, the label should be read and the cream used according to directions.
- When to see the doctor: Severe cases may require further treatment. A physician should be seen if the rash appears infected, is on the face or other sensitive body areas, or is too extensive to be easily treated at home.

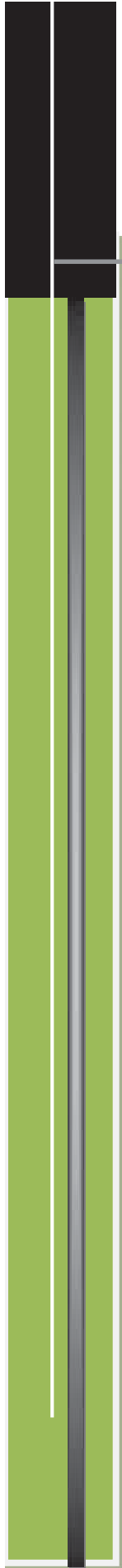
#### 10.4.11 Ticks

To remove an attached tick:

- Use fine-tipped tweezers or a "tick tool" to grasp the tick at the surface of the skin
- If tweezers are not available, use a tissue to protect the fingers (exposure to the tick's body fluid may lead to transmission of disease)
- With a steady motion, pull the tick straight out

Disinfect the bite site and the tweezers. Wash your hands thoroughly with soap and water. Save the tick if you can by placing it in a Ziploc bag in the freezer; this may help with diagnosis in the future.

If flu-like symptoms such as fatigue, headache, neck-stiffness or jaw discomfort begin following a tick bite, seek medical attention.



# APPENDICES



Environmental Engineers

**ATTACHMENT A**  
**COMPLIANCE AGREEMENT**

# EAG HEALTH AND SAFETY PLAN

## ACKNOWLEDGEMENT FORM

I, \_\_\_\_\_, have read (or had read to me), EAG's health and safety plan.  
(Print Name)

I understand my responsibilities as they are defined in this plan and will abide by these rules and procedures, as well as any regulations or otherwise governing safety. When in doubt concerning safe job performance, I will speak to my immediate supervisor and/or Project Manager.

I understand EAG reserves the right to change or amend the HASP at any time.

I understand any violation to the plan policies or procedures will be cause for disciplinary action up to and including termination.

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
EAG Supervisor/Project Manager Signature

\_\_\_\_\_  
Date



## **ATTACHMENT B**

**Material Safety Data Sheets (MSDSs)**