

**FINAL DRAFT REMEDIAL INVESTIGATION  
318 STATE AVENUE NE PROPERTY  
OLYMPIA, WASHINGTON**

**FEBRUARY 19, 2009**

**FOR  
CITY OF OLYMPIA**

**Final Draft Remedial Investigation  
318 State Avenue NE Property  
Olympia, Washington  
File No. 0415-049-02**

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## EXECUTIVE SUMMARY

Remedial investigation (RI) activities were completed at the Subject Property and adjacent rights-of-way to evaluate the nature and extent of contamination from former commercial and industrial activities completed at the property. Former commercial and industrial activities have included foundry operations, machine shops, automotive repair and maintenance, automotive/truck storage, and testing laboratories. The City of Olympia (City) acquired the property from the Washington State Department of Transportation (WSDOT) in 2008. The RI was prepared on behalf of the City to support the redevelopment of the Subject Property for commercial purposes (at the time of this report, an at-grade parking garage and/or mixed use commercial were being contemplated).

Three environmental investigations were completed at the Subject Property between July 2006 and October 2008. The investigations were completed for WSDOT or the City of Olympia to evaluate the presence of potential Chemicals of Concern (COCs) in soil and groundwater at the Subject Property that may have been associated with historic operations; for example, petroleum hydrocarbons, metals, solvents and semivolatile organic compounds. The results from these investigations were used in preparation of this RI.

The COCs exceeding Washington State Department of Ecology's (Ecology's) Model Toxics Control Act (MTCA) cleanup levels (CULs) observed in soil and groundwater at the Subject Property, consist of arsenic, lead, trichloroethene (TCE), and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) for soil and arsenic, TCE, and vinyl chloride for groundwater. The COCs for both soil and groundwater are generally present on the eastern portion of the Subject Property where past site activities included foundry operations and materials testing laboratory operations. The contaminants are present in silty fine to medium sand fill and silty sand native soil at depths between the ground surface and approximately 10 feet below ground surface (bgs). Shallow unconfined groundwater is present at a depth of approximately 4 to 6 feet bgs and the general direction of groundwater flow is to the northeast. A 35- to 90-foot thick silt to clay representing a confining layer is present at a depth of approximately 30 feet bgs beneath the Subject Property based on studies by others in the Property vicinity.

This RI outlines the nature and extent of contamination across the Subject Property and assesses the potential sources of soil and groundwater contamination. The conclusions of this RI will be used to develop a Feasibility Study (FS) and Cleanup Action Plan (CAP) consistent with redevelopment plans at the Subject Property.

*This Executive Summary should be used only in the context of the full report for which it is intended.*

**FINAL DRAFT REMEDIAL INVESTIGATION  
318 STATE AVENUE NE PROPERTY  
OLYMPIA, WASHINGTON  
FOR  
CITY OF OLYMPIA**

## 1.0 INTRODUCTION

This report presents the results of the remedial investigation (RI) completed for the property located at 318 State Avenue NE in Olympia, Washington, herein referred to as the “Subject Property” (Figure 1). The City of Olympia (City) acquired the property from the Washington State Department of Transportation (WSDOT) in 2008. The RI was prepared on behalf of the City to support the redevelopment of the Subject Property for commercial purposes. Redevelopment of the Subject Property is planned by the City. Development plans at the time of this RI include either an at-grade parking garage and/or mixed use commercial structure to support nearby City related facilities, including a new City Hall building and public transportation station.

This report documents investigation activities completed at the Subject Property to evaluate the nature and extent of contamination from former commercial and industrial activities at the property. This report presents the results of soil and groundwater sampling and analyses completed at the Subject Property between September 2006 to December 2008. The results of soil and groundwater analyses are presented to identify areas where chemical concentrations are greater than Model Toxic Control Act (MTCA) cleanup levels (CULs).

The investigation and preparation of the RI report are being completed as part of the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP).

## 2.0 PROJECT SCOPE AND OBJECTIVES

The scope of services completed for the RI includes a summary of previous investigations, the investigation completed in October and November 2008, as well as the following:

- Review of current land use and zoning and identification of future land use;
- Review of past land use and commercial and industrial activities that occurred on the Subject Property;
- Investigation and evaluation of the geology and hydrogeology of the project area;
- Sampling and analysis of soil and groundwater at the Subject Property and adjacent rights-of-way;
- Evaluation of chemical concentrations in soil and groundwater;
- Identification of chemicals of concern (COCs) for the Subject Property; and
- Identification of areas with chemical concentrations greater than MTCA cleanup criteria.

The scope of services for the supplemental investigation completed in October/November 2008 is provided in Appendix A.

The objectives of this RI were to:

- Compile the results of soil and groundwater investigation activities at the Subject Property;
- Evaluate the nature and extent of contamination from previous commercial and industrial activities; and
- Identify areas that contain COCs that are present at concentrations greater than cleanup criteria.

This RI report documents the findings from the scope of work to meet the RI objectives for the Subject Property.

### 3.0 BACKGROUND

#### 3.1 PROPERTY LOCATION AND DESCRIPTION

The Subject Property is approximately 1.1 acres in size and is located within the City of Olympia, Thurston County, Washington. The property is generally situated between the southern end of the East and West Bays of Budd Inlet (Figure 1) and is bounded on the south by State Avenue, on the east by Adams Street and on the west by Franklin Street (Figure 2). The Subject Property is bounded on the north by several commercial buildings and Olympia Avenue. Finally, the Subject Property Tax Parcel Number is 78503200400 and is located within the Southeast quarter of Section 14, Township 18 North, Range 2W.

The Subject Property is relatively flat, with ground surface elevations ranging from approximately 11 to 12 feet national geodetic vertical datum (NGVD). The western half of the property is paved with asphalt and the eastern half of the Subject Property is exposed soil and gravel in the former location of the WSDOT Transportation Data Office (TDO).

Surface water that accumulates after rainfall on the western portion of the property drains to three catch basins located in the asphalt pavement. Surface water that accumulates on the eastern portion of the property infiltrates into the soil/gravel present at the property surface.

#### 3.2 CURRENT LAND USE AND ZONING

The Subject Property is currently undeveloped, but is located in an area that is developed and used for commercial/industrial purposes. No buildings or other facilities are currently present on the Subject Property. The Subject Property most recently contained the WSDOT TDO building which was located on the eastern portion of the property (Figure 2). The TDO facility was removed by WSDOT in late 2007. Commercial/industrial businesses and operations or parking areas are present on properties located adjacent to the Subject Property.

The Subject Property is located within a commercial district of the City and is zoned Downtown Business (DB) District under City of Olympia Municipal Ordinance. The properties located south, west, and north of the Subject Property are also zoned DB District. The properties located east and northeast of the Subject Property are also located within the commercial district of the City but are zoned Urban Waterfront (UW) District.

#### 3.3 PLANNED REDEVELOPMENT

The City purchased the Subject Property for redevelopment in support of general plans to revitalize downtown Olympia and support use of the public transportation originating at the Olympia Transit Center

located 1 block to the west. Development plans at the time of this RI include either mixed use commercial and/or an at-grade parking garage to provide vehicle parking for patrons visiting downtown Olympia and utilizing the Olympia Transit Center located west, across Franklin Street, from the Subject Property.

### 3.4 PROPERTY USE HISTORY

The historic use of the Subject Property has been summarized in two Phase I Environmental Site Assessments (ESAs), dated March 2005 and August 2008, and a historic building preservation review (completed by WSDOT) of the TDO. The information gathered from these evaluations was used to identify past facilities and operations at the Subject Property. A summary of the development history and past use is provided in this section as background to identify operations that may have contributed to contamination and the potential COCs present at the Subject Property. The past facilities and operations that were identified are shown on Figure 3.

The Subject Property was undeveloped until at least 1888. The western portion of the property was part of the shoreline of Budd Inlet and the eastern portion of the property was part of the submerged marine or intertidal area of Budd Inlet (Luttrell 2007).

In the late 1800s, Budd Inlet was dredged and this material was placed as fill to extend the peninsula to the north and east (Port of Olympia Commission, February 1975). Some filling of the Subject Property had occurred by 1891 that extended the upland portion of the property to the east. In 1891, the Olympia Foundry and Machinery Company established a foundry building and machine shop on the southeastern portion of the property (Figure 3). However, the area to the east and northeast of the foundry and machine shop were still a part of Budd Inlet. The foundry and machinery business expanded and was also known under business names such as Pioneer Iron Works and Capital City Iron Works until 1923. During foundry operations the remainder of the eastern portion of the Subject Property was filled; primarily during 1911 and 1912, when almost 22 blocks were added to downtown Olympia using dredged fill generated during development of a deep-water harbor and fill sloughs north and east of the City (Stevenson 1985). This dredged material comprises fill currently present from the Subject Property to the current shoreline of the East Bay of Budd Inlet. The western portion of the Subject Property remained undeveloped during the late 1800s to 1923.

The Subject Property was purchased by the State of Washington Highway Commission (the precursor to WSDOT) from Capital City Iron Works in March 1923. The State purchased the property for use as the Olympic Soils Testing and Materials Laboratory. Additionally, the property acquired by the State included a railroad spur that was present along the northeastern boundary of the Subject Property (Figure 3).

Two automotive/truck sheds, a machine/automotive shop, and a materials testing laboratory were located on the Subject Property in 1924. The automotive/truck sheds and machine/automotive shop covered the predominant portions of the east and west side of the Subject Property. The materials testing laboratory was located on the northeast portion of the property (WSDOT 2005).

A fire burned and damaged buildings and equipment at the Subject Property in 1936. By 1939, the WSDOT facility was rebuilt including a portion of the pre-existing laboratory structure (Luttrell 2007). A 1946 Sanborn map indicates that the automotive/truck sheds were replaced with a smaller automotive service facility on the southwest portion of the property and office and testing laboratory on the southeast portion of the property. The structures previously identified as the machine/automotive shop and



materials laboratory were still present on the southwest corner and northeast portion of the property but are identified as machine shops and an automotive repair facility (WSDOT 2005).

In 1950, an addition to the testing laboratory was constructed that connected the southwest end to the north end of the building. With the construction of the addition, the building was a rectangular shape and enclosed a central courtyard area (Luttrell 2007).

In 1968, the automotive facility structures and operations were modified by WSDOT. The automotive service and repair facilities and machine shops were removed and the office and testing laboratory building was renovated to accommodate a traffic data collections and analysis office or TDO. The TDO covered approximately the western half of the Subject Property (WSDOT 2005). The TDO was demolished and removed from the property in 2007.

### **3.5 POTENTIAL CHEMICALS OF CONCERN (COCs)**

Past facilities and operations that have been present or occurred at the Subject Property have included foundries, machine shops, automotive repair and maintenance, automotive/truck storage, testing laboratories, and office buildings. Potential COCs for the Subject Property based on past facilities and operations include the following:

- Metals,
- Petroleum hydrocarbons,
- Solvents, and
- Polychlorinated Biphenyls (PCBs).

These potential COCs were evaluated as part of the RI for the Subject Property. The following section summarizes investigation activities that were completed to investigate the presence of potential COCs in soil and groundwater at the Subject Property. This RI report also further evaluates the recognized environmental conditions identified in the Phase I ESA dated August 26, 2008 and recommended evaluation of potential soil and groundwater contamination, in rights-of-ways west and south of the Subject Property.

### **3.6 ENVIRONMENTAL INVESTIGATIONS**

Three environmental investigations have been completed at the Subject Property between July 2006 and October 2008. The investigations were completed for WSDOT or the City to evaluate the presence of potential COCs in soil and groundwater at the Subject Property. The chemical analytical results from these investigations have been used in preparation of this RI and are summarized in Section 5.0. The scope of each of the environmental investigations is presented in the following sections and summarized in Table 1. The investigation locations for soil and groundwater are shown on Figure 4.

#### **3.6.1 2006 Phase II Environmental Site Assessment**

GeoEngineers completed a Phase II ESA in 2006. Two field sampling events were completed as part of the Phase II ESA in July and September 2006 that consisted of advancement of 17 direct-push borings (PP-1 through PP-17) to approximately 12 feet below ground surface (bgs). One or two soil samples were collected from each boring. A total of 27 soil samples were submitted to the analytical laboratory for chemical analyses. Nineteen of the soil samples were analyzed for metals (arsenic, lead, chromium, cadmium and mercury), petroleum hydrocarbons (gasoline, diesel and oil-range hydrocarbons), volatile

organic compounds (VOCs), semivolatile organic compounds (SVOCs), and carcinogenic polycyclic aromatic hydrocarbons (cPAHs). Eight of the soil samples were analyzed for metals and petroleum hydrocarbons only.

Discrete, one-time groundwater samples were collected from the boring locations for screening purposes. One groundwater screening sample was collected from each direct-push boring location (17 total). The groundwater samples were analyzed for metals (arsenic, lead, chromium, cadmium and mercury), petroleum hydrocarbons (gasoline, diesel and oil-range hydrocarbons), VOCs, SVOCs and cPAHs.

### **3.6.2 2007 Supplemental Phase II ESA**

WSDOT completed a Supplemental Phase II ESA in October 2007. The field sampling event was completed in October 2007 and consisted of advancement of 11 direct-push borings (TDO-01 through TDO-11) to approximately 8 feet bgs. One soil sample was collected from each boring and submitted for analysis of metals (arsenic and lead), VOCs and SVOCs.

Discrete, one-time groundwater samples were collected from each direct-push boring location (11 total) for screening purposes. The groundwater samples were analyzed for metals (arsenic and lead), VOCs and SVOCs.

### **3.6.3 2008 Groundwater Monitoring Well Installation**

GeoEngineers monitored the installation of 16 groundwater monitoring wells in and adjacent to the Subject Property. The groundwater monitoring wells were installed during two field sampling events completed in March/April and October/November 2008. Nine monitoring wells (MW-1 through MW-9) were installed in March 2008 and seven wells (MW-10 through MW-16) were installed in October 2008. The monitoring well borings were advanced to approximately 11 to 12 feet bgs and the wells screens were installed from approximately 3 to 11 feet bgs to span the shallow unconfined groundwater interface which was observed at depths between 4 to 6 feet bgs. Additionally, three direct-push borings (PP-18 through PP-20) were advanced to approximately 12 feet bgs as part of the October field sampling event to evaluate soil conditions within Adams Street, immediately west of documented solvent contaminated soil.

Two soil samples were collected during drilling of each well boring and advancement of each direct-push boring. A total of 38 soil samples were analyzed for metals (arsenic, lead, chromium, cadmium, mercury, selenium and silver), VOCs, SVOCs and cPAHs. Eighteen of the soil samples were also analyzed for PCBs.

Groundwater samples were collected from the monitoring wells and soil probes. A groundwater sample was collected from each of the monitoring wells installed in March 2008 (MW-1 through MW-9) after well installation (nine total). The groundwater samples collected in March 2008 were analyzed for metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver), VOCs, SVOCs, cPAHs, petroleum hydrocarbons (gasoline, diesel, and oil-range hydrocarbons) and PCBs. A groundwater sample was collected from each of the monitoring wells installed in October 2008 after well installation (MW-10 through MW-16) in addition to the wells installed in October 2008 (MW-1 through MW-9). Additionally, groundwater screening samples were collected from each direct-push boring location advanced in October 2008 (PP-18 through PP-20). The groundwater samples were analyzed for metals (arsenic, lead and mercury), VOCs, SVOCs and cPAHs.

## 4.0 GEOLOGY AND HYDROGEOLOGY

### 4.1 INTRODUCTION

The geologic and hydrogeologic conditions in the project area are the result of several episodes of regional glaciations, as well as recent man-made alterations to the area (e.g., dredge and fill). Evaluations of the regional geologic conditions are presented in Figure 5. Additionally, data concerning geologic and hydrogeologic conditions is provided by multiple investigations that have been completed in the project area and at the Subject Property. Information concerning the geologic and hydrogeologic conditions at the Subject Property includes the following:

- Geologic Map of the Tumwater 7.5-Minute Quadrangle, Thurston County Washington, 2003 by T.J. Walsh, R.L. Logan H.W. Schasse and Michael Polenz.
- Supplementary Geotechnical Investigation, East Bay Marina, Olympia, Washington, August 1982.
- Geotechnical Report, Downtown Transit Center, Olympia, Washington, July 1991, Shannon and Wilson, Inc.
- Final Draft Geotechnical Report, Proposed Olympia City Hall, Olympia, Washington, May 2007, Landau Associates.
- Remedial Investigation Work Plan, East Bay Redevelopment, Port of Olympia, Olympia, Washington, October 2008, GeoEngineers, Inc.
- Artesian Well Study, Thurston County Environmental Health, Olympia, Washington, 1994.
- Proposed City of Olympia Artesian Well Background Information on Groundwater Quality in Downtown Olympia, Pacific Groundwater Group, 2005.

The following sections describe the geologic and hydrogeologic conditions at the Subject Property based on the sources identified above.

### 4.2 GEOLOGY OF THE PROJECT AREA

Prior to manmade dredge/fill activities, the most recent surficial geologic period to affect the project area was the Vashon advance of the Fraser glaciation. The Vashon ice advanced into the Puget Sound lowland about 15,000 years ago and had melted from the area approximately 10,000 years ago. At its maximum extent, the ice spread across the entire Puget Sound lowland from the Olympic Mountains to the Cascade Mountains and extended as far south as Tenino, about 15 miles south of the project area. In the project area, the Vashon ice reached a depth (thickness) of greater than several hundred feet. The advancing ice created a large lake, called Lake Russell, in the southernmost part of modern Puget Sound. The lake drained when the ice melted sufficiently to restore northward drainage from the Puget Sound basin. A substantial amount of sediment was transported and deposited by the Vashon ice and the related meltwater streams during both the advancing stage and the retreat of the glacier. Erosion and deposition following the Vashon glaciation resulted in the general stratigraphy of the region. Deposits of glacial episodes that preceded the Vashon advance underlie the Vashon deposits.

The Vashon deposits in the general vicinity of the Subject Property include Vashon advance and/or recessional outwash. The outwash deposits consist of fine to medium grained sand with minor silt, and deposits of silt and clay. The outwash deposits beneath the site appear to be at least 400 feet thick based on a test well drilled for the Washington Public Power Supply System in 1974 (Walsh et al., 2003). This well was located near the present day Olympia Intercity Transit Terminal which is one block west of the

Subject Property (Pacific Groundwater Group, 2005). These deposits are underlain by undifferentiated Pleistocene deposits, based on the Walsh et al. geologic map.

Artesian groundwater conditions are known to exist in the downtown Olympia area in the Vashon deposits. A 1994 Thurston County Artesian Well Survey identified 94 artesian wells in the downtown area, based on historical documents, however most of the wells are no longer in use. The artesian conditions are the result of groundwater contained under pressure within coarser grained outwash deposits overlain by low permeability silt and/or lacustrine clay that acts as a confining layer and regional aquitard in the project area. Based on review of multiple reports and well logs in the project vicinity, it appears that the regional aquitard consists of interbedded soils ranging from silty sand to clay (Pacific Groundwater Group, 2005).

Fill material was placed over the Vashon deposits in the project area as part of the early development of the City. The West and East Bays of Budd Inlet were dredged, and dredge spoils were placed as fill on the Port Peninsula starting in 1892 (Port of Olympia Commission, February 1975). Between 1909 and 1911, a large-scale dredging project was conducted in Budd Inlet to provide a deeper marine navigation channel into Olympia. A large portion of northern downtown Olympia and the current Port Peninsula were created by the placement of the dredged material, as well as other fill material, in sloughs and shoreline areas (Figure 4).

Multiple exploration and/or geophysical investigations have been completed within the project area that provide information concerning the stratigraphy resulting from glaciation and filling as part of development. The following discussion summarizes some of these investigations for the purpose of (a) outlining the stratigraphy deeper than about 12 feet and (b) defining the approximate depth to the top of the regional aquitard. Because of the proximity of the borings described below to the Subject Property, depth below ground surface is assumed to be approximately the same as the Subject Property.

- The Intercity Transit Center project (1991) included two soil borings advanced to a depth of 81.5 and 46.5 feet bgs using hollow stem auger drilling techniques. The borings were located approximately 140 to 280 feet west of the Subject Property. The deeper boring encountered 7 feet of fill, consisting of very loose to loose silty sand. Beneath the fill the boring encountered dense, fine to medium native sand to 15 feet bgs. From 15 to 70 feet bgs the soil type ranged from sand and silt, and to clayey soil. The shallower boring encountered fill to 14.5 feet bgs, consisting of “very loose” silt and medium dense to dense sand. The fill was underlain by medium dense, native sand to 32 feet bgs. From 32 to 46.5 feet the soils included silty sand and sandy silt.
- The Proposed City Hall project (2007) included advancement of a 75-foot-deep soil boring using mud rotary drilling techniques. The well is located approximately 300 feet east of the Subject Property. Soils encountered included 10 feet of fill consisting of loose sandy gravel with silt underlain by wood. Underneath the fill was loose to medium dense sand with silt to a depth of 36 feet bgs. Between 36 feet and 73 feet bgs, the soil consisted of silt with sand or clay.
- The East Bay Redevelopment project (2007) included multiple soil borings and cone penetrometer (CPT) borings. Two borings were located approximately 300 feet east of the Subject Property. The two borings were advanced to approximately 22 feet bgs using hollow-stem auger drilling. The CPT boring was also located approximately 300 feet east of the Subject Property, and was advanced to 100 feet bgs. The soil borings encountered 9 feet of fill consisting of gravel and clay. Underneath the fill the borings encountered native silt to 16 feet bgs. Underneath the silt the borings encountered silt and clay to 22 feet bgs. The CPT encountered silt and clay between 25 feet and 100 feet bgs.

- The Supplementary Geotechnical Investigation project for the East Bay Marina (1986) included advancement of two soil borings to 55 feet bgs and three Dutch cone probes, two of which were advanced to 45 feet bgs. The project was located approximately one mile north of the Subject Property. The ground surface at the project site ranged from the same elevation as the Subject Property to 8 feet higher than the Subject Property. For simplicity, the following depths have been adjusted so that depths are described in reference to ground surface at the Subject Property. In general, the explorations encountered fill sand with layers of silt from the ground surface to 22 feet bgs. Sandy to clayey silt was encountered beneath the fill sand to 35 feet bgs. Soils ranging from sands to silty sands were encountered beneath the silt to the full depths explored.

Thirty-six borings were completed at the Subject Property between 2006 and 2008. The depth of the borings ranged from approximately 9 to 12 feet bgs. Figure 6 presents a geologic cross section, oriented diagonally from the southwest corner to the northeast corner of the Subject Property that shows the interpreted geologic conditions based on borings at and adjacent to the Subject Property. The boring logs from the investigations at the Subject Property are provided in Appendix D.

In general, subsurface soil encountered in the borings consisted of fill overlying native soil. The fill can be divided into two layers. The upper fill layer extends from the present ground surface to a depth of 1 to 5 feet bgs. This upper fill layer consisted of fine to medium sand with variable amounts of silt, gravel and brick debris. The lower fill layer was observed to be 2 to 10 feet in thickness, and consisted of fine to medium sand with variable amounts of silt, gravel and sea shell fragments. The total thickness of the two fill layers was approximately 5 feet in the southwest portion of the site, and 12 feet in the northeast portion of the site. This is consistent with historic maps which show that the former Budd Inlet shoreline was present at the location of the Subject Property in the late 1800s until dredge filling began.

The native soil and fill geologic contact was encountered in the borings at a depth of 5 to 12 feet bgs. This apparent native soil consisted of silt with organics (roots) or peat overlying sand or silty sand to the full depth explored.

Based on investigations completed in the project area, the near-surface stratigraphy at the Subject Project consists of the following:

- Two sand fill layers between the ground surface to approximately 5 to 12 feet bgs;
- Native silt or peat grading to sand or silty sand extending from beneath the fill to at least 30 feet bgs;
- Interbedded low-permeability soils representing a regional aquitard below a depth of approximately 30 feet bgs; and
- Coarser grained sands and gravels to depths as great as 400 feet bgs where the artesian aquifer is present beneath the regional aquitard.

### 4.3 HYDROGEOLOGY OF THE PROJECT AREA

Two hydrogeologic units are present within the near-surface stratigraphy of the project area. The regional aquitard physically separates the two units into shallow groundwater and deeper artesian groundwater.

A report written to support the development of a public, artesian well approximately 2,000 feet north of the Subject Property (Pacific Groundwater Group, 2005) indicates that groundwater flow in the deeper artesian aquifer is generally towards Budd Inlet. Additionally, the report indicates the artesian conditions are responsible for an upward gradient through the aquitard and into shallow groundwater. The report

indicates that the artesian aquifer is influenced by, but is not in direct connection with Budd Inlet. This is supported by the observations that artesian well flow rates are similar regardless of the tidal height, and that water samples collected from artesian wells consistently contain less than 10 mg/l of chloride.

Shallow groundwater is present in the fill and native soil above the regional aquitard. Shallow groundwater unit is unconfined and generally flows toward Budd Inlet.

Depth to shallow groundwater was measured in wells present on the Subject Property in March/April 2008 and October/November 2008. The depth to groundwater ranged from approximately 4 to 6 feet deep.

Depth to groundwater was also measured in the nine wells present on the Subject Property on August 15, 2008 to evaluate the shallow groundwater flow direction. Water levels were measured at the time corresponding to high and low tide on that day. Despite an approximately 15-foot tidal fluctuation, groundwater elevations in each well were less than 0.05 feet different at the high and low tides, suggesting that the unconfined aquifer is not significantly influenced by tidal fluctuation in the vicinity of the Subject Property. The groundwater flow direction beneath the Subject Property at high and low tide on August 15, 2008 was generally to the northeast towards the East Bay of Budd Inlet (Figure 7). There appears to be some variability in groundwater flow direction on the eastern boundary of the Subject Property. A shallow northwest-trending trough extended through the site based on the August 15 measurements. The variability in groundwater flow direction is likely attributable to: 1) naturally occurring artesian conditions beneath and adjacent to the Subject Property; 2) heterogeneous fill and inconsistent fill placement/thickness; and 3) the orientation of the lower permeability undulating native soil surface (beneath the fill).

An artesian well was located on the Subject Property. The artesian well was formerly located in the southeastern portion of the property, in the former TDO building courtyard as an aesthetic fountain (WSDOT 2005). This well was decommissioned and capped in March 2008. The well decommissioning letter and corresponding log is provided in Appendix B. The presence of the artesian well confirms the presence of the regional aquitard on the Subject Property.

## 5.0 ANALYTICAL RESULTS

### 5.1 INTRODUCTION

This section presents the results of the analyses of soil and groundwater samples collected from the Subject Property and adjacent to the Subject Property as part of the three investigations (2006, 2007 and 2008) described in Section 3.6. Reports have been prepared for the 2006 and 2007 studies. This RI includes the results from those studies and combines those data with the results of the 2008 study (which has not been previously reported).

This section presents the results for soil samples collected from a total of 47 soil borings and groundwater samples from 16 monitoring wells. Sampling and analysis for the 2006 and 2008 studies was overseen by GeoEngineers in accordance with Subject Property Sampling and Analysis Plan (SAP) presented in Appendix C.

The soil and groundwater investigation locations are shown on Figure 4. Table 1 summarizes the scope of soil and groundwater sampling and analysis completed as part of each investigation. Tables 2 through 4 present summaries of the frequency of detection of chemicals in soil and groundwater samples. The analytical results for all soil and groundwater samples are tabulated in Appendix E. Tables E-1 through

E-3 present the results for all soil and groundwater samples compared to MTCA Method A and B cleanup levels (CULs).

Test America Analytical Laboratories of Tacoma and Seattle, Washington and Environmental Services Northwest (ESN) Laboratory of Olympia, Washington were contracted to analyze samples collected by GeoEngineers. Test America Analytical Laboratories of Tacoma, Washington was used to analyze samples collected as part of the investigation performed for WSDOT. The laboratory analytical reports generated by each investigation event are provided in Appendix F.

A data quality review was performed on soil and groundwater analytical results presented in this RI. The data quality review was performed in accordance with the SAP prepared by GeoEngineers. The data is considered acceptable for use as qualified based on the results of the data quality review.

## 5.2 ANALYTICAL RESULTS FOR SOIL

A total of 78 soil samples were collected and analyzed as part of the three investigations completed between July 2006 and November 2008. One or two soil samples were collected from each of the direct push and/or monitoring well boring locations. The soil samples were obtained from depths ranging from approximately 2 to 10.5 feet bgs. The investigation locations were selected to evaluate the potential impacts from previous site use, and the lateral and vertical extent of contamination.

The results for individual chemical analyses are discussed below. A summary of chemicals with concentrations greater than MTCA CULs is presented at the end of this section (Section 5.2.6). Table 2 presents a summary of the frequency of detection of chemicals in the soil samples. Table E-1 in Appendix E presents the analytical results for all of the soil samples collected between July 2006 and October 2008 compared to MTCA CULs.

### 5.2.1 Metals

Total metals analyses for arsenic, barium, cadmium, total chromium, lead, mercury, selenium and silver were completed between 18 and 78 soil samples collected from the Subject Property (Table 2). Additionally, analysis for hexavalent chromium was completed on six soil samples as part of the 2006 investigation.

Barium, cadmium, selenium and silver were either not detected or detected at concentrations less than applicable MTCA Method B CULs (Table 2). Cadmium was analyzed in 47 samples and barium, selenium and silver were analyzed in 18 samples.

Arsenic and lead were detected in 54 and 66 out of 78 samples, respectively, analyzed for these chemicals (Table 2). The detected concentrations of arsenic in two samples were greater than the MTCA Method A soil CUL based on background concentrations of arsenic in soil in Washington State (Table E-1 in Appendix E). Samples with arsenic at concentrations greater than the soil CUL (20 milligrams per kilogram [mg/kg]) were collected from 2 to 4 feet bgs in sample location PP-17 (23 mg/kg) and 2 to 2.5 feet bgs in TD-05 (40 mg/kg).

The detected concentrations of lead in 3 out of 78 samples were greater than the MTCA Method A soil CUL (250 mg/kg) (Table 2). Samples with lead at a concentration greater than the soil CUL were collected from 2 to 4 feet bgs in sample locations PP-16 (350 mg/kg) and PP-17 (840 mg/kg) and 3 to 3.5 feet bgs in MW-15 (510 mg/kg) (Table E-1 in Appendix E).

Mercury was detected in 22 out of 69 samples analyzed for this chemical (Table 2). All detected concentrations and detection limits were less than the MTCA Method A and B soil CULs (2 mg/kg and 24 mg/kg) except for one sample at location PP-01 (Table E-1 in Appendix E). The detected concentration at PP-01, 2.3 mg/kg, in the sample collected from 6 to 6.5 feet bgs was greater than the MTCA Method A CUL but was not greater than the Method B CUL.

Speciation of chromium was completed on soil samples collected from the Subject Property. The MTCA CULs for chromium are based on the chrome species, either hexavalent (VI) or trivalent (III) chromium, present at a site. As previously stated, six samples were selected for hexavalent chromium (VI) analysis as part of the initial investigation event (i.e., sampling at locations PP-01 through PP-09). Samples were initially analyzed using total chromium analysis. Total chromium analyses detect both species of chromium and therefore, represent the sum of the two chromium species. Six samples with total chromium concentrations between 20.5 to 25.7 mg/kg were submitted for hexavalent chromium analysis. Hexavalent chromium was not detected in the soil samples at detection limits that were less than the chromium MTCA Method A and B soil CULs (19 mg/kg and 240 mg/kg, respectively) (Table 2). Because hexavalent chromium was not detected in soil samples collected from the site, the MTCA Method A trivalent chromium soil CUL (2,000 mg/kg) is used to evaluate the results of total chromium analyses that have been completed at the Subject Property.

Total chromium analyses were performed on 47 samples (Table 2). The detected chromium concentrations were less than the MTCA Method A soil CUL (Table E-1 in Appendix E).

In summary, the metals tested were either not detected or were detected at concentrations less than MTCA soil CULs with the exception of arsenic, lead and mercury.

### **5.2.2 Volatile Organic Compounds (VOCs)**

VOC analyses were completed to evaluate the presence of 65 chemicals within this chemical class. Only 24 of the 65 chemicals evaluated were detected in one or more samples (Table 2).

The chemicals 1,2,4-trimethylbenzene, 1,2-dichloropropane, 1,3,5-trimethylbenzene, CFC-11, chloromethane, 1,2-dichloroethene, trans-1,2-dichloroethene, carbon tetrachloride, chloroform and isopropylbenzene were detected in between one and eight out of 61 soil samples (Table 2). The detected concentrations and detection limits of these chemicals, except 1,2,3-trichlorobenzene, were less than the MTCA Method B CULs (Table E-1 in Appendix E).

The chemicals 1,2,3-trichlorobenzene, n-butylbenzene, n-propylbenzene, pentafluorobenzene, p-isopropyltoluene, and sec-butylbenzene were detected in between one and six soil samples. MTCA soil CULs are not currently available for these chemicals.

Benzene was detected in 8 of 61 soil samples. The detected concentrations of benzene (3.9 to 1,000 micrograms per kilogram [ $\mu\text{g}/\text{kg}$ ]) were less than the MTCA Method B soil CUL (18,000  $\mu\text{g}/\text{kg}$ ) but four of the detected concentrations were greater than the MTCA Method A soil CUL (30  $\mu\text{g}/\text{kg}$ ). The samples with detected benzene concentrations greater than the Method A CUL were from TD-10 at 7 to 7.5 feet bgs (150  $\mu\text{g}/\text{kg}$ ), MW-02 at 7 to 7.5 feet bgs (1,000  $\mu\text{g}/\text{kg}$ ), MW-07 at 10 to 10.5 feet bgs (70  $\mu\text{g}/\text{kg}$ ) and MW-15 at 3 to 3.5 feet bgs (160  $\mu\text{g}/\text{kg}$ ). The detection limits for samples in which benzene was not detected were below the MTCA Method A and B soil CULs.



Ethylbenzene and toluene were detected in 5 and 6 out of 61 soil samples, respectively, collected from the Subject Property. The detected concentrations and detection limits for ethylbenzene and toluene were less than the MTCA Method A and B soil CULs (Table 2).

Methylene chloride, a common laboratory contaminant, was detected in 26 of 61 soil samples. The detected concentrations of methylene chloride and the detection limits for samples in which methylene chloride was not detected were less than the MTCA Method B soil CUL (130,000 µg/kg). However, methylene chloride was detected at a concentration greater than the current MTCA Method A CUL (20 µg/kg) in six samples and the detection limits in 20 samples were also greater than the Method A CUL. The MTCA Method A soil CUL is based on protection of groundwater. Methylene chloride was not detected in groundwater samples at detection limits and order of magnitude less than the MTCA Method A groundwater CUL (see analytical results for groundwater). Therefore, methylene chloride does not represent a COC at the Subject Property.

Trichloroethene (TCE) was detected in 13 out of 61 soil samples. The detected concentrations of TCE and detection limits were less than the MTCA Method B soil CUL (2,500 µg/kg). However, seven of the detected TCE concentrations were greater than the Method A soil CUL (30 µg/kg). The samples with detected concentrations of TCE that were greater than the Method A soil CUL were from PP15 at 2 to 4 feet bgs (2,300 µg/kg), PP-16 at 2 to 4 and 4 to 6 feet bgs (46 and 55 µg/kg, respectively), TD03 at 4 to 4.5 feet bgs (230 µg/kg), TD-08 at 4 to 4.5 feet bgs (82 µg/kg), TD09 at 4 to 4.5 feet bgs (600 µg/kg), MW02 at 7 to 7.5 feet bgs (900 µg/kg), and MW07 at 7 to 7.5 feet bgs (45 µg/kg). The detection limits for five soil samples were also greater than the MTCA Method A soil CUL. The samples with detection limits for TCE that were greater than the Method A soil CUL were from PP-13 at 6 to 8 feet bgs (33 U µg/kg), PP-17 at 6 to 8 feet bgs (31 U µg/kg), TD-01 at 7 to 7.5 feet bgs (39 U µg/kg), TD10 at 7 to 7.5 feet bgs (66 U µg/kg), and MW-07 at 10 to 10.5 feet bgs (34 U µg/kg).

Tetrachloroethene (PCE) was detected in 3 out of 61 samples. The detected concentrations of PCE and detection limits were less than the MTCA Method B soil CUL (1,900 µg/kg). However, the detected concentrations of PCE in three samples and the detection limits in nine samples were greater than the MTCA Method A soil CUL (50 µg/kg). The samples with detected concentrations greater than the Method A soil CUL were from PP-15 at 2 to 4 feet bgs (54 µg/kg), TD-09 at 4 feet bgs (66 µg/kg), and MW-16 at 5 feet bgs (230 µg/kg). The nine samples with detection limits for PCE that were greater than the Method A soil CUL were from PP-13, PP-14, PP-16, PP-17, TD-01, TD-10, MW-02 and MW-07. The samples with detection limits greater than the MTCA Method A soil CUL were from all three investigation events.

Vinyl chloride was detected in 3 out of 61 soil samples. The detected concentrations (34 to 330 µg/kg) and detection limits (1.15 to 66 µg/kg) for samples in which vinyl chloride was not detected were less than the MTCA Method B soil CULs (670 µg/kg).

The detection limit for ethylene dibromide was greater than the MTCA CULs in soil samples collected from the Subject Property. Ethylene dibromide is used in anti-knock gasoline mixtures. As gasoline was detected in only one soil sample at a concentration less than the CUL and not detected in any groundwater samples (see petroleum hydrocarbon discussions below) collected from the Subject Property, it is not expected that ethylene dibromide would be present in soil and groundwater at concentrations greater than the MTCA groundwater CULs.

In summary, of the 24 VOCs that were detected, benzene, PCE and TCE were detected at concentrations greater than MTCA CULs. All other VOCs were not detected.

### **5.2.3 Semivolatile Organic Compounds (SVOCs) and Polycyclic Aromatic Hydrocarbons (PAHs)**

SVOC analyses were completed to evaluate the presence of 78 chemicals within this chemical class including PAHs. Only 25 of the 78 chemicals evaluated were detected in one or more samples (Table 2).

The chemicals 3,3'-dichlorobenzidine, benzyl alcohol, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, carbazole, dibenzofuran, diethyl phthalate and di-n-octyl phthalate were detected once or twice in soil samples collected from the Subject Property. The detected concentrations and detection limits for these chemicals were less than the MTCA Method B CULs (Table 2).

Non-carcinogenic PAHs were detected in between 5 and 19 soil samples collected from the Subject Property (Table 1). The detected concentrations and detection limits for non-carcinogenic PAHs were below MTCA CULs.

cPAHs were detected in between 2 and 18 samples. A toxicity equivalency soil concentration (TEQ) was calculated for cPAHs to compare the MTCA Method A CUL for benzo(a)pyrene. The TEQ was calculated for samples with detected cPAH concentrations using toxicity equivalency factors (TEFs) for each of the seven individual compounds (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene) which are then added to produce the TEQ. The TEQ for samples with detected concentrations of cPAHs (678 to 4,860 µg/kg) was greater than the CUL (100 µg/kg) in four samples collected from four investigation locations including PP-15, PP-16, PP-19 and TD-05 (Table E-1 in Appendix E).

In summary, all other SVOCs were either not detected or were detected at concentrations less than their respective MTCA CUL in soil samples.

### **5.2.4 Petroleum Hydrocarbons**

Petroleum hydrocarbon analyses were completed on 36 samples collected from the Subject Property (Table 2). Gasoline was detected once, diesel was detected nine times, and heavy oil-range hydrocarbons were detected 11 times in the samples collected from the Subject Property. However, the detections were less than the MTCA Method A CULs (Table E-1 in Appendix E). Additionally, the detection limits for the remaining petroleum hydrocarbon sample analyses were less than the MTCA Method A CULs.

### **5.2.5 PCBs**

PCBs analyses were completed on 18 soil samples collected from MW-01 through MW-09. PCBs were not detected in any soil samples collected at the Subject Property at detection limits that were approximately an order of magnitude less than the MTCA Method A CUL for total PCBs and MTCA Method B CULs for individual aroclors.

### **5.2.6 Summary of Results for Soil Analyses**

Multiple metals, VOCs and SVOCs were detected in soil samples collected from the Subject Property (Table 2). The detected concentrations and detection limits for chemicals that were not detected were less than the MTCA CULs in most samples. Chemicals with detected concentrations greater than the MTCA CULs for soil include arsenic, lead, mercury, benzene, TCE, PCE and cPAHs.

The exceedances of soil CULs identified in analyses include the following:

- Arsenic was detected at PP-17 in the sample from 2 to 4 feet bgs (23 mg/kg) and at TD-05 in the sample 2 to 2.5 feet bgs (40 mg/kg) at concentrations greater than the MTCA Method A CUL (20 mg/kg).
- Lead was detected at PP-16 and PP-17 in the samples from 2 to 4 feet bgs at concentrations (350 mg/kg and 840 mg/kg, respectively) greater than the MTCA Method A CUL (250 mg/kg) and at MW-15 in a sample from 3 to 3.5 feet bgs (510 mg/kg) also at a concentration greater than the MTCA Method A CUL.
- Mercury was detected at PP-01 in a sample from 6 to 8 feet bgs (2.3 mg/kg) at a concentration greater than the MTCA Method A CUL (2.0 mg/kg) but not greater than the MTCA Method B CUL (24 mg/kg).
- Benzene was detected at TD-10 at 7 to 7.5 feet bgs (150 ug/kg), MW-02 at 7 to 7.5 feet bgs (1,000 µg/kg), MW-07 at 10 to 10.5 feet bgs (70 µg/kg) and MW-15 at 3 to 3.5 (160 µg/kg) at concentrations greater than the MTCA Method A soil CUL (30 µg/kg) but not greater than the MTCA Method B soil CUL (18,000 µg/kg).
- TCE was detected at PP-15 at 2 to 4 feet bgs (2,300 mg/kg), PP-16 at 2 to 4 and 4 to 6 feet bgs (46 and 55 µg/kg, respectively), TD-03 at 4 to 4.5 feet bgs (230 µg/kg), TD-08 at 4 to 4.5 feet bgs (82 µg/kg), TD-09 at 4 to 4.5 feet bgs (600 µg/kg), MW-02 at 7 to 7.5 feet bgs (900 µg/kg), and MW-07 at 7 to 7.5 feet bgs (45 µg/kg) at concentrations that were greater than the Method A soil CUL (30 µg/kg) but were less than the MTCA Method B soil CUL (2,500 µg/kg).
- TCE detection limits for samples collected at PP-13 at 6 to 8 feet bgs (33 U µg/kg), PP-17 at 6 to 8 feet bgs (31 U µg/kg), TD-01 at 7 to 7.5 feet bgs (39 U µg/kg), TD-10 at 7 to 7.5 feet bgs (66 U µg/kg), and MW-07 at 10 to 10.5 feet bgs (34 U µg/kg) were greater than the Method A soil CUL (30 µg/kg) but were less than the MTCA Method B soil CUL (2,500 µg/kg).
- PCE was detected at PP-15 at 2 to 4 feet bgs (54 µg/kg), TD-09 at 4 feet bgs (66 µg/kg), and MW-16 at 5 feet bgs (230 µg/kg) at concentrations that were greater than the MTCA Method A soil CUL (50 µg/kg) but were less than the MTCA Method B soil CUL (1,900 µg/kg).
- PCE detection limits for nine samples collected at PP-13, PP-14, PP-16, PP-17, TD-01, TD-10, MW-02 and MW-07 were greater than the MTCA Method A soil CUL (50 µg/kg) but were less than the MTCA Method B soil CUL (1,900 µg/kg).
- The TEQ for samples with detected concentrations of cPAHs were greater than the CUL level in four samples collected from four investigation locations including PP-15, PP-16, PP-19 and TD-05 (Table E-1 in Appendix E).

Arsenic and lead concentrations that were greater than MTCA soil CULs were present in investigation locations on the eastern portion of the Subject Property. Soil samples with benzene, TCE PCE, and cPAH concentrations greater than the CULs were generally within and adjacent to the footprint of the former material testing laboratories.

### 5.3 ANALYTICAL RESULTS FOR GROUNDWATER

Groundwater sampling was completed as part of 2006, 2007 and 2008 investigation events conducted at the Subject Property. Groundwater samples were collected from temporary, direct-push soil probes and from “permanent,” Ecology-approved groundwater monitoring wells installed in and adjacent to the

Subject Property. Groundwater sampling from permanent monitoring wells was completed during two sampling events as part of investigations at the Subject Property.

One-time groundwater samples were also collected from 32 temporary, direct-push explorations completed at the Subject Property in 2006 through 2008. Groundwater samples were obtained from monitoring wells MW-01 through MW-09 on March 31 through April 1, 2008 after the monitoring wells were initially installed and developed. Groundwater samples were obtained from monitoring wells MW-01 through MW-16 on October 30 through November 6, 2008 after monitoring wells MW-10 through MW-16 were initially installed and developed.

The characterization of groundwater quality at the Subject Property presented in this RI is based on samples collected from the groundwater monitoring wells. The results from analysis of groundwater samples collected from the temporary, direct-push soil explorations were used for screening purposes during site characterization and to assist in the appropriate location of the permanent groundwater monitoring wells. The analytical results derived from groundwater samples obtained directly from direct-push explorations are typically biased high due to the entrainment of soil particles in the water samples. The groundwater samples obtained from monitoring wells are considered to be representative of groundwater conditions on and adjacent to the Subject Property. Therefore, the groundwater characterization presented in this RI is based on the results of samples collected from monitoring wells MW-01 through MW-16 in the March/April 2008 and October/November 2008 sampling events.

Low-flow groundwater sampling techniques were used to collect samples from monitoring wells MW-01 through MW-09 in March/April 2008 and MW-01 through MW-16 in October/November 2008. The groundwater samples were collected at a flow rate of approximately 500 milliliters per minute (ml/min) using dedicated, electric submersible pumps with vinyl tubing.

The following sections present the results for groundwater samples collected from monitoring wells MW-01 through MW-16.

### **5.3.1 Groundwater Monitoring Results – March/April 2008**

Monitoring Wells MW-01 through MW-09 were installed in March 2008. Wells MW-01 through MW-08 were installed on the Subject Property. Monitoring well MW-09 was installed downgradient of shallow groundwater flow, on the east side of Adams Street (Figure 4). Samples collected from these wells in March/April 2008 were submitted for metals, VOCs, SVOCs including PAHs, petroleum hydrocarbons and PCBs analyses (Table 1).

The results for individual chemical analyses on groundwater samples collected in March/April 2008 are discussed in the following sections. Table 3 presents a summary of the frequency of detection of chemicals in the groundwater samples. Table E-2 in Appendix E presents the analytical results for all of the groundwater samples collected in March/April 2008 compared to MTCA CULs.

#### **5.3.1.1 Metals**

Total and dissolved metals analyses were completed on groundwater samples collected from MW-01 through MW-09. The samples were analyzed for arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver.

Cadmium, chromium, mercury, selenium and silver were not detected in total or dissolved groundwater samples collected in March/April 2008 (Table 3). The analytical detection limits for these metals were less than MTCA CULs with the exception of selenium. The detection limit for selenium (0.1 milligram

per liter [mg/l]) was slightly greater than the MTCA Method B groundwater CUL (0.08 mg/l). Selenium was not detected in any soil samples collected from the Subject Property at analytical detection limits less than the MTCA Method B soil CUL (Table E-2 in Appendix E). Therefore, selenium is not expected to be present at concentrations greater than the Method B groundwater CUL.

Lead was detected in one groundwater sample collected from monitoring well MW-05. Lead was detected in the total metals analysis at a concentration (0.0039 mg/l) substantially less than the MTCA Method A groundwater CUL (0.015 mg/l). Lead was not detected in the dissolved metals analysis for MW-05 at an analytical detection limit (0.002 mg/l) less than the Method A groundwater CUL.

Barium was detected in all groundwater samples analyzed for total and dissolved metals (Table 3). The detected barium concentrations (0.012 to 0.047 mg/l) were generally two orders of magnitude less than the Method B groundwater CUL (3.2 mg/l).

Arsenic was only detected at concentrations greater than the MTCA Method A CUL in groundwater samples collect from two wells. The total and dissolved arsenic concentrations in groundwater from monitoring well MW-01 (0.0079 mg/l and 0.0053 mg/l) and the total arsenic concentration in MW-05 (0.0061 mg/l) were slightly greater than the Method A groundwater CUL (0.005 mg/l) (Table E-2 in Appendix E). Arsenic was not detected in total and dissolved analyses performed on groundwater samples or was detected in the dissolved and/or total analyses on groundwater at concentrations less than the Method A groundwater CUL.

In summary, the metals tested were either not detected or were detected at concentrations less than MTCA groundwater CULs with the exception of arsenic.

#### **5.3.1.2 Volatile Organic Compounds (VOCs)**

VOC analyses were completed to evaluate the presence of 57 chemicals. Thirteen of the 57 chemicals evaluated were detected in one or more samples (Table 3).

The chemicals 1,1-dichloroethene, 1,2,4-trimethylbenzene, CFC-11, benzene, toluene, xylene, PCE, cis-1,2-dichloroethene, and trans-1,2-dichloroethene were detected in one to nine samples (Table 3). The detected concentrations of these chemicals were substantially less than the MTCA Method A and B groundwater CULs (Table E-2 in Appendix E).

The chemicals sec-butylbenzene, and tert-butylbenzene were detected in one sample each. MTCA cleanup criteria do not currently exist for sec-butylbenzene and tert-butylbenzene.

Trichloroethene (TCE) and vinyl chloride were the only VOCs detected at concentrations greater than the MTCA Method A groundwater CULs. TCE was detected in one monitoring well, MW-02, at a concentration (5.3 µg/l) slightly greater than the Method A groundwater CUL (5.0 µg/l). TCE was either not detected or detected at concentrations less than the Method A CUL in groundwater from the remaining eight monitoring well locations. Vinyl chloride was detected in groundwater from seven of nine monitoring wells (MW-02 through MW-07 and MW-09) at concentrations (0.27 to 1.7 µg/l) greater than the Method A groundwater CUL (0.2 µg/l). Vinyl chloride was not detected in groundwater from the remaining two wells at detection limits less than the CUL.

The detection limits for ethylene dibromide (0.019 to 0.02 µg/l) were greater than the MTCA Method A groundwater CUL (0.01 µg/l) (Table E-2 in Appendix E). Ethylene dibromide is used in anti-knock gasoline mixtures. As gasoline was not detected in any groundwater samples collected from the Subject Property (see petroleum hydrocarbon discussion below) and in only one soil sample at a concentration

less than the CUL, it is not expected that ethylene dibromide would be present in groundwater at concentrations greater than the MTCA groundwater CULs.

In summary, of the 13 VOCs that were detected, TCE and vinyl chloride were detected at concentrations greater than MTCA CULs. All other VOCs were not detected.

**5.3.1.3 Semivolatile Organic Compounds (SVOCs) and Polycyclic Aromatic Hydrocarbons (PAHs)**  
SVOC analyses were completed to evaluate the presence of 67 chemicals including PAHs. Only two of the 67 chemicals were detected in one or more samples (Table 3).

Benzo(a)pyrene was detected in one groundwater sample collected from monitoring well MW-01 at a concentration (0.044 ug/l) less than the Method A groundwater CUL (0.1 µg/l). As benzo(a)pyrene was the only cPAH that was detected, the detected concentration of benzo(a)pyrene was less than the CUL, and the detection limits for all other cPAHs were less than the MTCA Method A groundwater CUL for benzo(a)pyrene, a TEQ was not calculated for cPAHs in groundwater.

Benzoic acid was detected in five groundwater samples at concentrations (1.2 to 1.3 µg/l) that were four orders of magnitude less than the Method B groundwater CUL (64,000 µg/l).

The detection limits for chemicals that were not detected for which there are Method B groundwater CULs were less than the CULs except for 3,3'-dichlorobenzidine, bis(2chloroethyl)ether and hexachlorobenzene. These compounds were either not detected in soil, or in the case of 3,3'-dichlorobenzidine, was detected once in soil at a concentrations several orders of magnitude less than the CUL and the detection limits were less than the MTCA Method B soil CUL. Therefore, 3,3'-dichlorobenzidine, bis(2chloroethyl)ether and hexachlorobenze are not expected to be present in groundwater at concentrations greater than the Method B groundwater CUL.

In summary, all SVOCs were either not detected or were detected at concentrations less than their respective MTCA CUL in groundwater samples.

#### **5.3.1.4 Petroleum Hydrocarbons**

Gasoline-, diesel- and/or oil-range petroleum hydrocarbons were not detected in the groundwater samples submitted for chemical analysis (Table 3). The detection limits for all petroleum hydrocarbon analyses were less than the Method A groundwater CULs (Table E-2 in Appendix E).

#### **5.3.1.5 Polychlorinated Biphenyls (PCBs)**

PCB aroclors were not detected in the groundwater samples collected from monitoring wells MW-01 through MW-09. The detection limits for Aroclor 1016 were less than the Method B groundwater cleanup level. However, the detection limits for other aroclors were greater than the MTCA Method A CUL for total PCBs and the detection limits for Aroclor 1254 were also greater than the Method B groundwater CUL. PCB aroclors were not detected in any soil samples at detection limits one order of magnitude less than the MTCA Method B soil CUL. Therefore, PCBs are not expected to be present in groundwater at concentrations greater than the MTCA CULs.

#### **5.3.1.6 Summary of Results for Groundwater Analyses**

Relatively few chemicals were detected in groundwater samples collected from monitoring wells MW-01 through MW-09 in March/April 2008 (Table 3). Most VOCs and SVOCs, and all petroleum hydrocarbons and PCBs were not detected. Additionally, the detected concentrations of all chemicals except arsenic, TCE and vinyl chloride were less than the MTCA groundwater CULs.

The exceedances of groundwater CULs identified in analyses completed in March/April 2008 include the following

- Arsenic was detected in monitoring well MW-01 (0.0079 mg/l and 0.0053 mg/l) and MW-05 (0.0061 mg/l) at concentrations slightly greater than the Method A groundwater CUL (0.005 mg/l).
- TCE was detected in monitoring well MW-02 at a concentration (5.3 µg/l) slightly greater than the Method A groundwater CUL (5.0 µg/L).
- Vinyl chloride was detected in groundwater from seven monitoring wells (MW-02 through MW-07 and MW-09) at concentrations (0.27 to 1.7 µg/l) greater than the Method A groundwater CUL (0.2 µg/l).

Arsenic concentrations that were greater than MTCA groundwater CULs were present in monitoring wells located on the southwestern and southeastern portion of the Subject Property. Monitoring wells with TCE and vinyl chloride concentrations greater than the CULs were generally within and adjacent to the footprint of the former material testing laboratories. Vinyl chloride was also detected in groundwater from monitoring well MW-09 located downgradient of the former locations of the materials testing.

### **5.3.2 Groundwater Monitoring Results – October/November 2008**

Monitoring wells MW-10 through MW-16 were installed on and adjacent to the Subject Property in October 2008 to supplement monitoring wells MW-01 through MW-09. Monitoring wells MW-10 through MW-12 were installed downgradient, northeast of the Subject Property in Adams Street and on the east side of Adams Street north and south of MW-09 (Figure 4). Monitoring well MW-13 was installed upgradient/crossgradient, south of the Subject Property on the south side of State Avenue (Figure 4). Monitoring wells MW-14 through MW-16 were installed on the western and northeastern portions of the Subject Property.

The groundwater samples collected in October/November 2008 were submitted for metals, VOC and SVOC including PAH analyses (Table 4). Petroleum hydrocarbons, PCBs and the metals barium, cadmium, chromium, selenium and silver were not analyzed in October/November 2008 because these chemicals were either not detected or detected at concentrations less than MTCA CULs in groundwater samples collected and analyzed from monitoring wells during the March/April 2008 groundwater sampling event.

The analytical results for groundwater samples collected in October/November 2008 are discussed below. Table 4 presents a summary of the frequency of detection of chemicals in the groundwater samples. Table E-3 in Appendix E presents the analytical results for all of the groundwater samples collected in March/April 2008 compared to MTCA CULs.

#### **5.3.2.1 Metals**

Total and dissolved metals analyses were completed on groundwater samples collected from MW-01 through MW-16. The samples were analyzed for arsenic, lead, and mercury.

Mercury was not detected in any total or dissolved groundwater samples collected in October/ November 2008 (Table 4). The analytical detection limit for mercury (0.001 mg/l) was less than the MTCA Method A CUL (0.002 mg/l) (Table E-3 in Appendix E).

Lead was detected in three total metals analyses. The detected lead concentrations (0.0034 to 0.0074 mg/l) in the total metals analyses were less than the MTCA Method A groundwater CUL (0.015 mg/l). Lead was not detected in any dissolved metals analyses at detection limits less than the CUL.

Arsenic was detected in all total and dissolved analyses completed on groundwater samples collected in October/November 2008. The total and/or dissolved concentrations of arsenic in all of the samples were greater than the MTCA Method A groundwater CUL except for the samples collected from monitoring wells MW-07 and MW-16. The concentrations of arsenic detected in October/November 2008 may be the result of seasonal variation or laboratory interference from other chemicals during sample analysis.

In summary, the metals tested were either not detected or were detected at concentrations less than MTCA groundwater CULs with the exception of arsenic.

### 5.3.2.2 Volatile Organic Compounds (VOCs)

VOC analyses were completed to evaluate 57 chemicals in groundwater samples collected from MW-01 through MW-16. Only two of the 57 chemicals evaluated were detected in the groundwater samples (Table 4).

Benzene was detected in three samples. The detected concentrations (0.4 to 0.95 µg/l) and detection limits (0.37 µg/l) were less than MTCA Method A CUL (5.0 µg/l) (Table E-3 in Appendix E).

PCE was detected in five samples. The detected concentrations (0.49 to 0.98 µg/l) and detection limits (0.47 µg/l) were less than MTCA Method A CUL (5.0 µg/l).

The detection limits for 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, and 1,2-dibromo-3-chloropropane were greater than the MTCA Method B groundwater CULs. 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane and 1,2-dibromo-3-chloropropane were not detected in groundwater samples collected in March/April 2008 at detection limits less than the MTCA groundwater CULs (Table 3). Additionally, these chemicals were not detected in soil (Table 2). The detection limits for these chemicals in soil were less than the MTCA Method B soil CULs. Therefore, 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane and 1,2-dibromo-3-chloropropane are not expected to be present in groundwater at concentrations greater than the MTCA CULs.

All other VOCs were not detected. For VOCs with MTCA CULs, the detection limits were less than MTCA CULs.

### 5.3.2.3 Semivolatile Organic Compounds (SVOCs) and Polycyclic Aromatic Hydrocarbons (PAHs)

SVOC analyses were completed to evaluate the presence of 67 chemicals including PAHs. None of the 67 chemicals evaluated were detected (Table 4).

PAHs were not detected in groundwater samples at detection limits less than the MTCA Method A groundwater CUL for benzo(a)pyrene. As cPAHs were not detected at detection limits less than the MTCA Method A groundwater CUL, a TEQ was not calculated for cPAHs in groundwater.

The detection limits for 1,3-dinitrobenzene, 1,4-dichlorobenzene, 1,4-dinitrobenzene, 2,2'-oxybis(1-chloropropane), 2,4,6-trichlorophenol, bis(2-chloroethyl)ether, hexachlorobenzene, hexachlorobutadiene and pentachlorophenol were greater than the MTCA B groundwater CULs. The chemicals 1,4-dinitrobenzene and hexachlorobutadiene were also analyzed as part of VOC analyses and were not detected at detection limits less than the MTCA CULs. The chemicals 2,2'-oxybis(1-chloropropane), 2,4,6-trichlorophenol, bis(2-chloroethyl)ether, hexachlorobenzene and pentachlorophenol were not



detected in groundwater analyses completed in March/April 2008 at detection limits less than the MTCA Method B CULs. The chemicals bis(2-chloroethyl)ether and hexachlorobenzene were not detected in soil and the detection limits of these compounds in soil were less than the MTCA Method B soil CUL. The chemical 1,3-dinitrobenzene is a component of explosives and 1,4-dinitrobenzene is predominantly used for dyes and medicine. For the reasons stated above, these chemicals are not expected to be present in groundwater at the Subject Property at concentrations greater than the MTCA groundwater CULs.

All other SVOCs were not detected. For SVOCs with MTCA CULs, the detection limits were less than MTCA CULs.

#### **5.3.2.4 Summary of Results for Groundwater Analyses for October/November 2008**

Arsenic was the only chemical detected at concentrations greater than the MTCA groundwater CULs. Arsenic was detected in all total and dissolved analyses completed on groundwater samples collected in October/November 2008. The total and/or dissolved concentrations of arsenic in all of the samples were greater than the MTCA Method A groundwater CUL except for the samples collected from monitoring wells MW-07 and MW-16. Monitoring wells with arsenic concentrations greater than the Method A CUL are located on and adjacent to the Subject Property. The highest concentration of arsenic was detected in groundwater (MW-13) is located upgradient/crossgradient of the Subject Property.

## **6.0 CHEMICALS OF CONCERN**

This section identifies the COCs for soil and groundwater based on evaluation of the results of sample analyses against the MTCA CULs. The following sections provide an evaluation of the COCs in each media for each chemical group. Figures 8 and 9 present the locations and concentrations of COCs for soil and groundwater.

### **6.1 METALS**

Soil and groundwater samples were analyzed for arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver. Barium, cadmium, chromium, selenium and silver are not identified as COCs for soil or groundwater as these compounds were either not detected or were detected at concentrations less than the MTCA soil and groundwater CULs. Further evaluation is provided for arsenic, lead and mercury in soil and groundwater at the Subject Property in the following sections.

#### **6.1.1 Arsenic**

Arsenic was detected in both soil and groundwater samples at concentrations greater than the MTCA Method A CULs.

The detected concentrations of arsenic in 2 out of 78 soil samples were greater than the MTCA Method A soil CUL based on background concentrations of arsenic in soil in Washington State (Table E-1 in Appendix E). Arsenic was detected in soil at PP-17 in the sample from 2 to 4 feet bgs (23 mg/kg) and at TD-05 in the sample 2 to 2.5 feet bgs (40 mg/kg) at concentrations greater than the MTCA Method A CUL (20 mg/kg). The detected arsenic concentrations in all other soil samples were less than the soil CUL. Arsenic is identified as a COC for soil at the Subject Property.

Arsenic was only detected at concentrations greater than the MTCA Method A CUL in groundwater samples collected from two wells in March/April 2008. The total and dissolved arsenic concentrations in groundwater from monitoring well MW-01 (0.0079 mg/l and 0.0053 mg/l) and the total arsenic concentration in MW-05 (0.0061 mg/l) were slightly greater than the Method A groundwater CUL. The

total and/or dissolved concentrations of arsenic in all of the samples that were collected in October/November 2008 were greater than the MTCA Method A groundwater CUL except for the samples collected from monitoring wells MW-07 and MW-16. Monitoring wells with arsenic concentrations greater than the Method A CUL were located on and adjacent to the Subject Property. The highest concentration of arsenic was detected in groundwater (MW-13) is located upgradient/crossgradient of the Subject Property. Arsenic is identified as a COC for groundwater at the Subject Property.

### **6.1.2 Lead**

Lead was detected in 3 out of 78 soil samples at concentrations greater than the MTCA Method A soil CUL (250 mg/kg). Samples with lead at a concentration greater than the soil CUL were collected from 2 to 4 feet bgs in sample locations PP-16 (350 mg/kg) and PP-17 (840 mg/kg) and 3 to 3.5 feet bgs in MW-15 (510 mg/kg). The detected lead concentrations in all other soil samples were less than the soil CUL. Lead is identified as a COC for soil at the Subject Property.

Lead was only detected in one groundwater sample collected in March/April 2008 (MW-05 at 0.0039 mg/l) and the detected concentration was less than the MTCA Method A groundwater CUL (0.015 mg/l). Lead was detected in three groundwater samples collected in October/November 2008 and the detected concentrations (0.0034 to 0.0074 mg/l) were also less than the MTCA Method A groundwater CUL. Because lead is not present at concentrations greater than the groundwater CUL, it is not identified as COC for groundwater at the Subject Property.

### **6.1.3 Mercury**

Mercury was detected in 1 out of 66 soil samples at a concentration greater than the MTCA Method A soil CUL (2.0 mg/kg) at location PP-01. The detected concentration at PP-01 collected from 6 to 6.5 feet bgs (2.3 mg/kg) was slightly greater than the MTCA Method A CUL but was not greater than the Method B CUL (24 mg/kg). The detected mercury concentrations in all other soil samples were less than the MTCA Method A and B soil CULs.

Mercury was not detected in any groundwater samples collected in March/April 2008. Mercury was also not detected in any groundwater samples collected in October/November 2008. The analytical detection limits for mercury for samples analyzed for both investigation events were less than the MTCA Method A CUL (0.002 mg/l). Because mercury is not present at concentrations greater than the groundwater CUL it is not a COC for groundwater at the Subject Property.

Mercury is also not considered a COC for soil based on the groundwater sample results. The MTCA Method A CUL for soil is based on protection of drinking water and the MTCA Method A groundwater CUL is based on the Maximum Contaminant Level (MCL) for drinking water. As mercury is not present in any groundwater samples at concentrations greater than the MTCA Method A groundwater CUL, the concentrations present in soil are protective of groundwater.

## **6.2 VOLATILE ORGANIC COMPOUNDS (VOCs)**

Soil and groundwater samples were analyzed to evaluate the presence of 65 and 57 VOCs, respectively. Relatively few VOCs were detected in soil and groundwater samples collected from the Subject Property. All VOCs, except benzene, TCE, PCE, vinyl chloride are not evaluated further, and are not identified as COCs for soil or groundwater as the VOCs, because they were either not detected or were detected at concentrations less than the MTCA soil and groundwater CULs.

Further evaluation of benzene, TCE, PCE and vinyl chloride in soil and groundwater at the Subject Property is provided in the following sections.

### **6.2.1 Benzene**

Benzene was detected in 8 of 61 soil samples. The detected concentrations of benzene (3.9 to 1,000  $\mu\text{g}/\text{kg}$ ) were less than the MTCA Method B soil CUL (18,000  $\mu\text{g}/\text{kg}$ ) but four of the detected concentrations were greater than the MTCA Method A soil CUL (30  $\mu\text{g}/\text{kg}$ ). The samples with detected benzene concentrations greater than the Method A CUL were from TD-10 at 7 to 7.5 feet bgs (150  $\mu\text{g}/\text{kg}$ ), MW-02 at 7 to 7.5 feet bgs (1,000  $\mu\text{g}/\text{kg}$ ), MW-07 at 10 to 10.5 feet bgs (70  $\mu\text{g}/\text{kg}$ ) and MW-15 at 3 to 3.5 (160  $\mu\text{g}/\text{kg}$ ).

Benzene was detected in six groundwater samples collected in March/April 2008 at concentrations (0.11 to 0.34  $\mu\text{g}/\text{l}$ ) that were an order of magnitude less than the MTCA Method A groundwater CUL (5.0  $\mu\text{g}/\text{l}$ ). Additionally, benzene was detected in three samples collected in October/November 2008 at concentrations (0.4 to 0.95  $\mu\text{g}/\text{l}$ ) less than MTCA Method A CUL. Because benzene is not present at concentrations greater than the MTCA Method A groundwater CUL it is not a COC for groundwater at the Subject Property.

Benzene is also not considered a COC for soil based on the groundwater sample results. The MTCA Method A CUL for soil is based on protection of drinking water and the MTCA Method A groundwater CUL is based on the MCL for drinking water. As benzene is not present in any groundwater samples at concentrations greater than the MTCA Method A groundwater CUL, the concentrations present in soil are protective of groundwater.

### **6.2.2 Trichloroethene (TCE)**

TCE was detected in 13 out of 61 soil samples. The detected concentrations of TCE and detection limits for samples in which TCE was not detected were less than the MTCA Method B soil CUL (2,500  $\mu\text{g}/\text{kg}$ ). However, five of the detected TCE concentrations were greater than the Method A soil CUL (30  $\mu\text{g}/\text{kg}$ ). The samples with detected concentrations of TCE that were greater than the Method A soil CUL were from PP-15 at 2 to 4 feet bgs (2,300  $\mu\text{g}/\text{kg}$ ), PP-16 at 2 to 4 and 4 to 6 feet bgs (46 and 55  $\mu\text{g}/\text{kg}$ , respectively), TD-03 at 4 to 4.5 feet bgs (230  $\mu\text{g}/\text{kg}$ ), TD-08 at 4 to 4.5 feet bgs (82  $\mu\text{g}/\text{kg}$ ), TD-09 at 4 to 4.5 feet bgs (600  $\mu\text{g}/\text{kg}$ ), MW-02 at 7 to 7.5 feet bgs (900  $\mu\text{g}/\text{kg}$ ), and MW-07 at 7 to 7.5 feet bgs (45  $\mu\text{g}/\text{kg}$ ). The detection limits for five soil samples were also greater than the MTCA Method A soil CUL. The samples with detection limits for TCE that were greater than the Method A soil CUL were from PP-13 at 6 to 8 feet bgs (33 U  $\mu\text{g}/\text{kg}$ ), PP-17 at 6 to 8 feet bgs (31 U  $\mu\text{g}/\text{kg}$ ), TD-01 at 7 to 7.5 feet bgs (39 U  $\mu\text{g}/\text{kg}$ ), TD-10 at 7 to 7.5 feet bgs (66 U  $\mu\text{g}/\text{kg}$ ), and MW-07 at 10 to 10.5 feet bgs (34 U  $\mu\text{g}/\text{kg}$ ).

TCE was detected at a concentration greater than the MTCA Method A groundwater CUL in one sample collected in March/April 2008. TCE was detected in monitoring well, MW-02, at a concentration (5.3  $\mu\text{g}/\text{l}$ ) slightly greater than the Method A groundwater CUL (5.0  $\mu\text{g}/\text{l}$ ). TCE was not detected in groundwater samples collected in October/November 2008. The detection limits (0.4  $\mu\text{g}/\text{l}$ ) were less than the MTCA Method A groundwater CUL.

Although TCE was detected in soil at concentrations greater than the MTCA Method A soil CUL, analyses of groundwater samples collected in October/November 2008 indicate that the concentrations of TCE in soil are protective of groundwater. Only one groundwater sample collected in October/November 2008 indicates that TCE is a COC for groundwater and therefore, is a COC in soil. TCE is retained as a COC for soil and groundwater at the Subject Property.

### 6.2.3 Tetrachloroethene (PCE)

PCE was detected in 3 out of 61 samples. The detected concentrations of PCE and detection limits for samples in which PCE was not detected were less than the MTCA Method B soil CUL (1,900 µg/kg). However, the detected concentrations of PCE in three samples and the detection limits in nine samples were greater than the MTCA Method A soil CUL (50 µg/kg). The samples with detected concentrations greater than the Method A soil CUL were from PP-15 at 2 to 4 feet bgs (54 µg/kg), TD-09 at 4 feet bgs (66 µg/kg), and MW16 at 5 feet bgs (230 µg/kg). The nine samples with detection limits for PCE that were greater than the Method A soil CUL were from PP-13, PP-14, PP-16, PP-17, TD-01, TD-10, MW-02 and MW-07. The samples with detection limits greater than the MTCA Method A soil CUL were from all three investigation events.

PCE was detected in one groundwater sample collected in March/April 2008. The detected PCE concentration (0.24 µg/L) and detection limits (0.1 µg/L) for samples where PCE was not detected in March/April 2008 were less than the MTCA Method A groundwater CUL (5.0 µg/L). PCE was detected in five samples collected in October/November 2008. The detected concentrations (0.49 to 0.98 µg/l) and detection limits (0.47 µg/l) for samples in which PCE was not detected were less than MTCA Method A CUL. Because PCE is not present at concentrations greater than the groundwater CUL it is not a COC for groundwater at the Subject Property.

PCE is also not considered a COC for soil based on the groundwater sample results. The MTCA Method A CUL for soil is based on protection of drinking water and the MTCA Method A groundwater CUL is based on the (MCL) for drinking water. As PCE is not present in any groundwater samples at concentrations greater than the MTCA Method A groundwater CUL, the concentrations present in soil are protective of groundwater.

### 6.2.4 Vinyl Chloride

Vinyl chloride was detected in 3 out of 61 soil samples. The detected concentrations (34 to 330 µg/kg) and detection limits (1.15 to 66 µg/kg) for samples in which vinyl chloride was not detected were less than the MTCA Method B soil CULs (670 µg/kg). Because vinyl chloride is not present at concentrations greater than the soil CUL it is not a COC for soil at the Subject Property.

Vinyl chloride was detected at concentrations greater than the MTCA Method A groundwater CUL in samples collected in April/March 2008. Vinyl chloride was detected in groundwater from seven of nine monitoring wells (MW-02 through MW-07 and MW-09) at concentrations (0.27 to 1.7 µg/l) greater than the Method A groundwater CUL (0.2 µg/l). Vinyl chloride was not detected in groundwater samples collected in October/November 2008. The detection limits (0.18 µg/l) were less than the MTCA Method A groundwater CUL. Analyses of groundwater samples collected in October/ November 2008 indicate that vinyl chloride is not a COC in groundwater at the Subject Property. However, groundwater samples collected in March/April 2008 indicates that vinyl chloride is a COC for groundwater. Therefore, vinyl chloride retained is retained as a COC for soil and groundwater at the Subject Property.

## 6.3 SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs) AND POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

Soil and groundwater samples were analyzed to evaluate the presence of 78 and 67 SVOCs, respectively. Relatively few SVOCs were detected in soil and groundwater samples collected from the Subject Property. All SVOCs, except cPAHs, are not evaluated further, and are not identified as COCs for soil or

groundwater as the SVOCs, other than cPAHS, were either not detected or were detected at concentrations less than the MTCA soil and groundwater CULs.

Further evaluation for cPAHs in soil and groundwater at the Subject Property is provided in the following section.

### **6.3.1 Polycyclic Aromatic Hydrocarbons (PAHs)**

cPAHs were detected in between 2 and 18 soil samples. A toxicity equivalency soil concentration (TEQ) was calculated for cPAHs to compare to the MTCA Method A CUL for benzo(a)pyrene (100 µg/kg). The TEQ for samples with detected concentrations of cPAHs (678 to 4,860 µg/kg) was greater than the CUL (100 µg/kg) in four samples collected from four investigation locations including PP-15, PP-16, PP-19 and TD-05 (Table E-1 in Appendix E). cPAHs are identified as a COC for soil at the Subject Property.

Benzo(a)pyrene was the only cPAH detected in one groundwater sample collected in March/April 2008 from monitoring well MW-01. The benzo(a)pyrene concentration (0.044 µg/l) was less than the Method A groundwater CUL (0.1 µg/l). All other cPAHs were not detected in groundwater samples at detection limits less than the MTCA Method A groundwater CUL for benzo(a)pyrene. As cPAHs were not detected in groundwater or were detected at a concentration less than the MTCA Method A CULs for benzo(a)pyrene, cPAHs are not considered COCs for groundwater at the Subject Property.

## **6.4 PETROLEUM HYDROCARBONS**

Soil and groundwater samples were analyzed for petroleum hydrocarbons including gasoline-, diesel- and oil-range petroleum hydrocarbons. Petroleum hydrocarbon analyses were completed on 36 soil samples collected from sample locations PP-01 through PP-08, PP-13 through PP-17, MW-01 through MW-09. Petroleum hydrocarbons were either not detected or were detected at concentrations less than the MTCA Method A soil CULs in all soil samples. Additionally, gasoline-, diesel- and oil-range petroleum hydrocarbons were not detected in groundwater samples collected in March/April 2008. Petroleum hydrocarbons are not considered COCs for soil or groundwater at the Subject Property as petroleum hydrocarbons were either not detected or were detected in at concentrations less than the MTCA Method A CULs.

## **6.5 POLYCHLORINATED BIPHENYLS (PCBs)**

Soil and groundwater samples were analyzed for PCBs. PCB analyses were completed on 18 soil samples collected from sample locations MW-01 through MW-09. PCBs were not detected at detection limits that were approximately one order of magnitude less than the MTCA soil CULs for PCBs in all soil samples. Additionally, PCBs were not detected in groundwater samples collected in March/April 2008. PCBs are not considered COCs for soil or groundwater at the Subject Property as PCBs were not detected in soil or groundwater samples.

## **7.0 CONCLUSIONS AND RECOMMENDATIONS**

The COCs for soil and groundwater at the Subject Property based on the comparison of chemical concentrations to MTCA CULs are the following:

- Soil COCs include;
  - Arsenic

- Lead
- TCE
- cPAHs

Groundwater COCs include;

- Arsenic
- TCE
- Vinyl chloride

Figure 8 presents the results for soil samples with concentrations of COCs greater than MTCA CULs. With the exception of one sample collected from MW-15, all of the samples with concentrations of arsenic, lead, TCE and cPAHs greater than MTCA CULs were collected from the former locations of foundry facilities and the materials testing laboratory. Former foundry activities were likely the source of arsenic and lead in soil. TCE is likely the result of testing activities at the former material laboratories. The presence of solvents in the area of the materials testing laboratories is consistent with activities identified to occur at these facilities and associated contamination as identified in the WSDOT Phase I (WSDOT 2005) and Phase II (WSDOT 2007) reports. The source for cPAHs is likely the fire that burned and damaged the former materials testing laboratory and automotive/truck shed in 1936.

Arsenic and lead in soil at concentrations greater than the CULs are only present in localized areas (i.e., PP-16, PP-17, TD-05 and MW-15) and at depths between 2 and 4 feet bgs. Based on the investigation results, significant arsenic and lead source areas are not present at the Subject Property.

TCE in soil at concentrations greater than the CULs is predominantly present in the southeast portion of the Subject Property between 2 and 8 feet bgs. Based on the investigation results, the area with TCE in soil at concentrations greater than the CUL is generally within the footprint of the former TDO building and Subject Property boundary and is bounded by investigation sample locations with TCE concentrations that are less than the CULs.

The area with cPAH concentrations greater than the CUL is predominantly present in the southeastern portion of the property and generally within the footprint of the former TDO building. Soil containing cPAH concentrations greater than the CULs was detected between 2 and 4 feet bgs. The area where cPAHs are observed in soil at concentrations greater than the CUL is likely where material resulting from the former materials testing laboratory and automotive/truck shed fire was present prior to construction of the TDO. It is likely that debris from the fire and demolition activities was mixed with site soils and is the source of cPAHs. The concentration gradient in samples shows a decreasing concentration with depth. cPAHs were not detected in groundwater at concentrations greater than the MTCA CUL indicating that the cPAHs in soil are not impacting groundwater.

Figure 9 presents the results of groundwater samples with concentrations of COCs greater than the MTCA CULs. Variability was observed in the presence and concentration of the groundwater COCs between the March/April and October/November 2008 sampling events.

Arsenic was observed in groundwater at two locations, MW-01 and MW-05, at concentrations greater than the CUL during March/April 2008. However, arsenic was either not detected or detected at concentrations less than the CUL in groundwater from the remaining wells in March/April 2008. Arsenic concentrations in soil in and adjacent to MW-01 and MW-05 are generally less than 5.0 mg/kg and arsenic concentrations in soil at the Subject Property are less than background concentrations in Washington State. In October/November 2008, arsenic was observed in all but two wells at

concentrations greater than the CUL. The highest arsenic concentration was detected in MW-3 located upgradient/crossgradient to the Subject Property. Additional groundwater sampling and analysis is necessary to evaluate the variability in arsenic concentrations and possible factors influencing presence and aerial extent. Possible factors include seasonal variation, changes in redox potential, and laboratory interferences from other chemicals during sample analyses.

TCE and vinyl chloride were detected in groundwater samples collected during the March/April 2008 event but were not detected in groundwater samples collected during the October/November 2008 event. In March/April, TCE and vinyl chloride were observed in groundwater present in the eastern portion of the site in the same area as soil contaminated with TCE at concentrations greater than the CUL. The TCE concentration in groundwater at MW-02 was only slightly greater than the groundwater CUL. The concentrations of vinyl chloride in March/April samples ranged from the CUL (0.2 µg/l) to approximately 20 times the CUL. Vinyl chloride is a product of the degradation of chlorinated solvents including PCE and TCE. Similar to arsenic, additional groundwater sampling and analysis is necessary to evaluate the variability in TCE and vinyl chloride concentrations.

The nature and extent of contamination has been defined based on the results of this RI. The extent of COCs at concentrations greater than the CULs in soil is essentially limited to the southeastern portion of the Subject Property to depths that are less than 6 to 10 feet bgs. The extent of COCs at concentrations greater than the CULs in groundwater is also predominantly located in the southeastern portion of the Subject Property. However, variability between the spring (March/April) versus fall (October/November) groundwater sampling events suggest that additional groundwater monitoring is warranted. Because the nature and extent of COCs in groundwater are unlikely to change as a result of future groundwater monitoring, it is our opinion that proceeding with a feasibility study (FS) and a cleanup action plan (CAP) in accordance with MTCA cleanup regulations is appropriate at this time to allow redevelopment plans to continue.

## 8.0 REFERENCES

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## **9.0 LIMITATIONS**

We have prepared this report for the exclusive use of the City of Olympia and their authorized agents as part of their evaluation of environmental conditions at the project area.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Please refer to Appendix G titled "Report Limitations and Guidelines for Use" for additional information pertaining to use of this report.



**TABLE 1  
INVESTIGATION EVENTS SUMMARY  
318 STATE AVENUE NE  
OLYMPIA, WASHINGTON**

Investigation Event	Investigation Period	Soil Investigation Locations	Number of Soil Samples	Soil Analyses	Analytical Method	Water Investigation Locations	Number of Water Samples	Water Analyses	Analytical Method
Phase II	July 2006	PP-01 through PP-08	9	Total Metals <sup>1</sup>	EPA 6000/7000 / EPA 7471A	PP-01 through PP-08	8	Total Metals <sup>1</sup>	EPA 6000/7000 / EPA 7471A
				VOCs	EPA 8260B			VOCs	EPA 8260B
				SVOCs	EPA 8270C			SVOCs	EPA 8270C
				cPAHs	EPA 8270C SIM			cPAHs	EPA 8270C SIM
				Petroleum Hydrocarbons	NWTPH-Gx, -Dx			Petroleum Hydrocarbons	NWTPH-Gx, -Dx
	September 2006	PP-09 through PP-17	20	Total Metals <sup>1</sup>	EPA 6000/7000 / EPA 7471A	PP-09 through PP-17	9	Total Metals <sup>1</sup>	EPA 6000/7000 / EPA 7471A
				VOCs	EPA 8260B			VOCs	EPA 8260B
				SVOCs	EPA 8270C			SVOCs	EPA 8270C
				cPAHs	EPA 8270C SIM			cPAHs	EPA 8270C SIM
				Petroleum Hydrocarbons	NWTPH-Gx, -Dx			Petroleum Hydrocarbons	NWTPH-Gx, -Dx
Supplemental Phase II	October 2007	TD01 through TD11	11	Total Metals <sup>2</sup>	EPA 6020	TD01 through TD11	12	Total Metals <sup>2</sup>	EPA 6020
				VOCs	EPA 8260B			VOCs	EPA 8260B
				SVOCs	EPA 8270C			SVOCs	EPA 8270C
Monitoring Well Installation	March 2008	MW-01 through MW-09	18	Total Metals <sup>3</sup>	EPA 6000/7000 / EPA 7471A	MW-01 through MW-09	9	Total and Dissolved Metals <sup>4</sup>	EPA 6000/7000 / EPA 7471A
				VOCs	EPA 8260B			VOCs	EPA 8260B
				SVOCs	EPA 8270C			SVOCs	EPA 8270C
				cPAHs	EPA 8270C SIM			cPAHs	EPA 8270C SIM
				Petroleum Hydrocarbons	NWTPH-Gx, -Dx			Petroleum Hydrocarbons	NWTPH-Gx, -Dx
				PCBs	EPA 8082			PCBs	EPA 8082
	October 2008	MW-10 through MW-16 and PP-18 through PP-20	20	Total Metals <sup>5</sup>	EPA 6020	MW-01 through MW-16 and PP-18 through PP-20	20	Total and Dissolved Metals <sup>5</sup>	EPA 6020
				VOCs	EPA 8260B			VOCs	EPA 8260B
				SVOCs	EPA 8270C			SVOCs	EPA 8270C
				cPAHs	EPA 8270C SIM			cPAHs	EPA 8270C SIM

Notes:

<sup>1</sup> Samples were analyzed for total arsenic, cadmium, chromium, lead and mercury.

<sup>2</sup> Samples were analyzed for total arsenic and lead.

<sup>3</sup> Samples were analyzed for total arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver.

<sup>4</sup> Samples were analyzed for total and dissolved (water only) arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver.

<sup>5</sup> Samples were analyzed for total and dissolved (water only) arsenic, lead and mercury.

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TABLE 2  
DETECTION FREQUENCY SUMMARY - SOIL  
318 STATE AVENUE NE  
OLYMPIA, WASHINGTON

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Number of Samples	Number of Detects	Minimum Detected Value	Maximum Detected Value	Average Detected Value	Minimum Non- detected Value	Maximum Non- detected Value	Average Non- detected Value
<b>Metals (mg/kg)</b>										
Arsenic	20	0.67	78	54	1	40	5.83	1	11	3.08
Barium	NC	16,000	18	18	4.8	150	34.03	NA	NA	NA
Cadmium	NC	40	47	0	NA	NA	NA	0.21	1.9	0.47
Chromium	NC	NC	47	47	8.6	45	20.04	NA	NA	NA
Chromium, Hexavalent	19	240	6	0	NA	NA	NA	1.1	1.3	1.15
Lead	250	NC	78	66	1	840	44.03	1	5	2.13
Mercury	2	24	67	22	0.018	2.3	0.17	0.017	0.541	0.16
Selenium	NC	400	18	0	NA	NA	NA	5.3	19	6.84
Silver	NC	400	18	1	2.1	2.1	2.10	1.1	3.8	1.38
<b>Volatile Organic Compounds (µg/kg)</b>										
1,1,1,2-Tetrachloroethane	NC	38,000	61	0	N/A	N/A	N/A	2.31	270	58.66
1,1,1-Trichloroethane	2,000	72,000,000	61	0	N/A	N/A	N/A	1.15	110	32.83
1,1,2,2-Tetrachloroethane	NC	5,000	61	0	N/A	N/A	N/A	2.31	55	24.31
1,1,2-Trichloroethane	NC	18,000	61	0	N/A	N/A	N/A	0.576	270	58.52
1,1-Dichloroethane	NC	8,000,000	61	0	N/A	N/A	N/A	0.922	270	58.55
1,1-Dichloroethene	NC	4,000,000	61	0	N/A	N/A	N/A	1.38	110	32.85
1,1-Dichloropropene	NC	NC	61	0	N/A	N/A	N/A	2.31	270	58.66
1,2,3-Trichlorobenzene	NC	NC	61	1	120	120	120.00	4.61	270	74.00
1,2,3-Trichloropropane	NC	140	61	0	N/A	N/A	N/A	2.31	270	58.66
1,2,4-Trichlorobenzene	NC	800,000	61	0	N/A	N/A	N/A	4.61	270	74.43
1,2,4-Trimethylbenzene	NC	4,000,000	61	8	53	110	83.25	2.31	270	59.97
1,2-Dibromo-3-Chloropropane	NC	710	61	0	N/A	N/A	N/A	4.61	270	58.85
1,2-Dichlorobenzene	NC	7,200,000	61	0	N/A	N/A	N/A	2.31	270	58.66
1,2-Dichloroethane	NC	11,000	61	0	N/A	N/A	N/A	0.576	270	58.52
1,2-Dichloropropane	NC	15,000	61	4	2.9	3.6	3.18	2.31	55	25.44
1,3,5-Trimethylbenzene	NC	4,000,000	61	6	62	81	68.50	2.31	270	59.61
1,3-Dichlorobenzene	NC	NC	61	0	N/A	N/A	N/A	2.31	270	58.66
1,3-Dichloropropane	NC	NC	42	0	N/A	N/A	N/A	2.31	110	25.20
1,4-Dichlorobenzene	NC	42,000	61	0	N/A	N/A	N/A	2.31	270	58.66
2,2-Dichloropropane	NC	NC	61	0	N/A	N/A	N/A	4.61	270	58.85
2-Butanone	NC	48,000,000	3	0	N/A	N/A	N/A	6.92	14.9	11.51
2-Chlorotoluene	NC	1,600,000	61	0	N/A	N/A	N/A	2.31	270	58.66
2-Hexanone	NC	NC	3	0	N/A	N/A	N/A	9.22	19.8	15.31
4-Chlorotoluene	NC	NC	61	0	N/A	N/A	N/A	2.31	270	58.66
Acetone	NC	8,000,000	3	0	N/A	N/A	N/A	13.8	29.7	22.97
Benzene	30	18,000	61	8	3.9	1000	176.59	0.692	21	14.01
Bromobenzene	NC	NC	61	0	N/A	N/A	N/A	2.31	270	58.66
Bromochloromethane	NC	NC	61	0	N/A	N/A	N/A	2.31	270	58.66
Bromoform	NC	130,000	61	0	N/A	N/A	N/A	2.31	270	58.66
Bromomethane	NC	110,000	61	0	N/A	N/A	N/A	4.61	1,400	230.21
Carbon Disulfide	NC	8,000,000	3	0	N/A	N/A	N/A	1.38	2.97	2.30
Carbon Tetrachloride	NC	7,700	61	1	66	66	66.00	2.31	110	32.93
CFC-11	NC	24,000,000	61	3	15	31	21.67	2.31	270	57.58
CFC-12	NC	16,000,000	61	0	N/A	N/A	N/A	2.31	270	58.66
Chlorobenzene	NC	1,600,000	61	0	N/A	N/A	N/A	0.922	270	58.55
Chloroethane	NC	350,000	61	0	N/A	N/A	N/A	2.31	1,400	230.02
Chloroform	NC	160,000	61	1	140	140	140.00	1.15	270	58.18
Chloromethane	NC	77,000	61	2	16	35	25.50	4.61	270	58.20
Cis-1,2-Dichloroethene	NC	800,000	61	3	170	920	423.33	1.38	110	53.12
Cis-1,3-Dichloropropene	NC	NC	61	0	N/A	N/A	N/A	2.31	270	58.66
Dibromochloromethane	NC	12,000	61	0	N/A	N/A	N/A	2.31	270	58.66
Dibromomethane	NC	800,000	61	0	N/A	N/A	N/A	2.31	270	58.66
Dichlorobromomethane	NC	16,000	61	0	N/A	N/A	N/A	2.31	270	58.66
Ethylbenzene	6,000	8,000,000	61	5	68	120	82.40	1.84	270	59.40
Ethylene dibromide	5 <sup>2</sup>	12	61	0	N/A	N/A	N/A	2.31	270	58.66
Hexachlorobutadiene	NC	13,000	61	0	N/A	N/A	N/A	4.61	270	74.43
Isopropylbenzene (Cumene)	NC	8,000,000	61	1	71	71	71.00	2.31	270	58.81
Methyl isobutyl ketone	NC	6,400,000	3	0	N/A	N/A	N/A	9.22	19.8	15.31
Methyl t-butyl ether	100	560,000	3	0	N/A	N/A	N/A	0.461	0.992	0.77
Methylene Chloride	20 <sup>2</sup>	130,000	61	19	7.8	82	23.48	1.61	170	43.24
Naphthalene	5,000	1,600,000	61	3	13	120	49.00	4.61	270	73.67
n-Butylbenzene	NC	NC	61	2	51	74	62.50	2.31	270	58.96
n-Propylbenzene	NC	NC	61	6	63	84	71.67	2.31	270	59.61
Pentafluorobenzene	NC	NC	3	3	40	40	40.00	N/A	N/A	N/A
p-Isopropyltoluene	NC	NC	61	3	4.9	32	17.63	2.31	170	54.66
Sec-Butylbenzene	NC	NC	61	2	25	71	48.00	2.31	170	55.23
Styrene	NC	33,000	61	0	N/A	N/A	N/A	0.461	270	58.51
Tert-Butylbenzene	NC	NC	61	0	N/A	N/A	N/A	2.31	270	58.66
Tetrachloroethene	50 <sup>2</sup>	1,900	61	3	54	230	116.67	0.922	170	32.91
Toluene	7,000	6,400,000	61	6	9.9	700	186.32	0.692	170	55.59
Total Xylenes	9,000	16,000,000	42	0	NA	NA	NA	2.31	270	62.58
Trans-1,2-Dichloroethene	NC	1,600,000	61	2	29	550	289.50	1.15	170	55.08

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Number of Samples	Number of Detects	Minimum Detected Value	Maximum Detected Value	Average Detected Value	Minimum Non- detected Value	Maximum Non- detected Value	Average Non- detected Value
Trans-1,3-Dichloropropene	NC	NC	61	0	N/A	N/A	N/A	0.576	270	58.52
Trichloroethene	30 <sup>2</sup>	2500	61	13	4.6	2300	332.41	1.15	66	20.91
Vinyl Chloride	NC	670	61	3	34	330	158.00	1.15	66	31.69
<b>Semi-volatile Organic Compounds (µg/kg)</b>										
1,2,4-Trichlorobenzene	NC	800,000	53	0	N/A	N/A	N/A	47	1,910	541.68
1,2-Dichlorobenzene	NC	7,200,000	53	0	N/A	N/A	N/A	47	1,910	541.68
1,3-Dichlorobenzene	NC	NC	53	0	N/A	N/A	N/A	47	1,910	541.68
1,3-Dinitrobenzene	NC	8,000	20	0	N/A	N/A	N/A	5,000	5,000	5,000.00
1,4-Dichlorobenzene	NC	42,000	53	0	N/A	N/A	N/A	47	1,910	541.68
2,2'-Oxybis[1-chloropropane]	NC	14,000	43	0	N/A	N/A	N/A	160	5,000	2,463.63
2,3,4,6-Tetrachlorophenol	NC	2,400,000	20	0	N/A	N/A	N/A	1,000	1,000	1,000.00
2,3,5,6-Tetrachlorophenol	NC	NC	20	0	N/A	N/A	N/A	1,000	1,000	1,000.00
2,4,5-Trichlorophenol	NC	8,000,000	53	0	N/A	N/A	N/A	95	5,000	1,995.85
2,4,6-Trichlorophenol	NC	91,000	53	0	N/A	N/A	N/A	140	5,000	2,028.60
2,4-Dichlorophenol	NC	240,000	53	0	N/A	N/A	N/A	95	5,000	1,995.85
2,4-Dimethylphenol	NC	1,600,000	53	0	N/A	N/A	N/A	95	1,910	574.42
2,4-Dinitrophenol	NC	160,000	53	0	N/A	N/A	N/A	950	5,000	2,806.79
2,4-Dinitrotoluene	NC	160,000	53	0	N/A	N/A	N/A	95	1,000	508.74
2,6-Dinitrotoluene	NC	80,000	53	0	N/A	N/A	N/A	95	1,000	508.74
2-Chloronaphthalene	NC	6,400,000	53	0	N/A	N/A	N/A	19	1,000	433.79
2-Chlorophenol	NC	400,000	53	0	N/A	N/A	N/A	95	1,000	486.42
2-Nitroaniline	NC	NC	53	0	N/A	N/A	N/A	95	5,000	1,995.85
2-Nitrophenol	NC	NC	53	0	N/A	N/A	N/A	95	5,000	1,995.85
3,3'-Dichlorobenzidine	NC	2,200	33	1	95	95	95.00	190	1,910	428.44
4,6-Dinitro-2-Methylphenol	NC	NC	53	0	N/A	N/A	N/A	950	5,000	2,675.47
4-Bromophenyl phenyl ether	NC	NC	53	0	N/A	N/A	N/A	95	1,000	486.42
4-Chloro-3-Methylphenol	NC	NC	53	0	N/A	N/A	N/A	95	5,000	1,995.85
4-Chloroaniline	NC	320,000	53	0	N/A	N/A	N/A	95	5,000	2,215.17
4-Chlorophenyl-Phenylether	NC	NC	53	0	N/A	N/A	N/A	95	1,000	486.42
4-Nitroaniline	NC	NC	48	0	N/A	N/A	N/A	95	5,000	2,155.92
4-Nitrophenol	NC	NC	53	0	N/A	N/A	N/A	950	5,000	2,675.47
Aniline	NC	180,000	20	0	N/A	N/A	N/A	1000	1,000	1,000.00
Benzene, 1,4-Dinitro-	NC	32,000	20	0	N/A	N/A	N/A	5000	5,000	5,000.00
Benzoic Acid	NC	320,000,000	33	0	N/A	N/A	N/A	1,080	9,300	2,847.27
Benzyl Alcohol	NC	24,000,000	53	1	100	100	100.00	95	1,910	583.35
Bis(2-Chloroethoxy)Methane	NC	NC	53	0	N/A	N/A	N/A	95	1,000	486.42
Bis(2-Chloroethyl)Ether	NC	910 <sup>2</sup>	48	0	N/A	N/A	N/A	95	1,000	489.25
Bis(2-chloroisopropyl) ether	NC	3,200,000	10	0	N/A	N/A	N/A	140	170	158.00
Bis(2-Ethylhexyl) Phthalate	NC	71,000	53	2	2,600	4,200	3,400.00	1000	5,600	1,618.04
Butyl benzyl phthalate	NC	16,000,000	53	2	97	5,100	2,598.50	95	1,000	500.98
Carbazole	NC	50,000	48	1	41	41	41.00	140	1,000	533.40
Dibenzofuran	NC	160,000	53	1	300	300	300.00	95	1,000	476.54
Dibutyl phthalate	NC	8,000,000	53	0	N/A	N/A	N/A	190	1,910	639.81
Diethyl phthalate	NC	64,000,000	53	1	12	12	12.00	95	1,000	493.87
Dimethyl phthalate	NC	80,000,000	53	0	N/A	N/A	N/A	95	1,000	486.42
Di-N-Octyl Phthalate	NC	1,600,000	53	2	140	160	150.00	190	1,000	565.22
Hexachlorobenzene	NC	630 <sup>2</sup>	53	0	N/A	N/A	N/A	47	1,000	453.68
Hexachlorobutadiene	NC	13,000	53	0	N/A	N/A	N/A	47	1,910	541.68
Hexachlorocyclopentadiene	NC	480,000	53	0	N/A	N/A	N/A	95	1,910	574.42
Hexachloroethane	NC	71,000	53	0	N/A	N/A	N/A	95	1,910	574.42
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	NC	830,000	20	0	N/A	N/A	N/A	1,000	1,000	1,000.00
Isophorone	NC	1,100,000	53	0	N/A	N/A	N/A	95	1,000	486.42
m-Nitroaniline	NC	NC	53	0	N/A	N/A	N/A	95	5,000	2,083.85
Nitrobenzene	NC	40,000	53	0	N/A	N/A	N/A	95	1,000	486.42
N-Nitrosodi-n-propylamine	NC	140 <sup>2</sup>	53	0	N/A	N/A	N/A	95	1,000	486.42
N-Nitrosodiphenylamine	NC	200,000	53	0	N/A	N/A	N/A	47	1,000	453.68
o-Cresol	NC	4,000,000	53	0	N/A	N/A	N/A	95	1,000	486.42
p-Cresol	NC	400,000	28	0	N/A	N/A	N/A	190	740	248.21
Pentachlorophenol	NC	8,300	53	0	N/A	N/A	N/A	95	5,000	2,083.85
Phenol	NC	48,000,000	53	0	N/A	N/A	N/A	95	1,000	486.42
Phenol, 3,4-dimethyl	NC	80,000	5	0	N/A	N/A	N/A	358	630	459.20
Pyridine	NC	80,000	20	0	N/A	N/A	N/A	1,000	1,000	1,000.00
Quinoline, 4-nitro-, 1-oxid	NC	NC	5	0	N/A	N/A	N/A	358	630	459.20
<b>Total Petroleum Hydrocarbons (mg/kg)</b>										
Gasoline Range Hydrocarbons	30 /100	NC	36	1	4.63	4.63	4.63	3.6	27	6.44
Diesel Range Hydrocarbons	2,000	NC	36	9	7.9	210	61.82	11.2	95	28.16
Heavy Oil Range Hydrocarbons	2,000	NC	36	11	24	1,100	233.81	28	190	58.52
<b>Polycyclic Aromatic Hydrocarbon (µg/kg)</b>										
1-Methylnaphthalene	NC	24,000	34	7	0.82	70	24.90	5.5	110	13.07
2-Methylnaphthalene	NC	320,000	34	8	0.65	190	52.02	5.5	109	13.36
Acenaphthene	NC	4,800,000	34	7	1.4	350	70.56	4.7	109	12.87
Acenaphthylene	NC	NC	34	5	0.69	100	21.26	5	109	12.69
Anthracene	NC	24,000,000	34	10	0.57	2,000	226.14	5.5	109	13.82
Benz[a]anthracene <sup>2</sup>	NC	NC	34	9	1.1	790	203.16	4.7	109	31.10
Benzo(a)pyrene <sup>2</sup>	100 <sup>2</sup>	140	34	11	0.72	4,200	530.19	5.8	110	36.88
Benzo(b)fluoranthene <sup>2</sup>	NC	NC	24	1	28	2,100	381.00	10	109	27.20
Benzo(ghi)perylene	NC	NC	34	8	2.3	1,800	402.79	5.5	109	13.52
Benzo(k)fluoranthene <sup>2</sup>	NC	NC	24	1	650	2,300	1,475.00	10	109	32.20

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Number of Samples	Number of Detects	Minimum Detected Value	Maximum Detected Value	Average Detected Value	Minimum Non- detected Value	Maximum Non- detected Value	Average Non- detected Value
Chrysene <sup>2</sup>	NC	NC	34	11	0.74	4,300	452.64	4.7	109	23.90
Dibenzo(a,h)anthracene <sup>2</sup>	NC	NC	34	5	8.3	290	157.81	4.7	150	32.07
Fluoranthene	NC	3,200,000	34	15	0.75	8,500	778.65	5.8	109	15.15
Fluorene	NC	3,200,000	34	5	1.1	1,100	221.54	5	109	12.69
Indeno(1,2,3-cd)pyrene <sup>2</sup>	NC	NC	34	9	1.6	2,600	471.40	5.5	150	33.71
Naphthalene	5,000	1,600,000	34	8	0.75	240	43.81	5.5	109	13.52
Phenanthrene	NC	NC	34	11	1.6	8,200	845.52	5.5	109	13.94
Pyrene	NC	2,400,000	34	14	0.78	7,500	746.48	5.8	109	14.94
<b>Polychlorinated Biphenyls (µg/kg)</b>										
PCB-aroclor 1016	NC	5,600	18	0	N/A	N/A	N/A	110	400	136.67
PCB-aroclor 1221	NC	NC	18	0	N/A	N/A	N/A	110	400	136.67
PCB-aroclor 1232	NC	NC	18	0	N/A	N/A	N/A	110	400	136.67
PCB-aroclor 1242	NC	NC	18	0	N/A	N/A	N/A	110	400	136.67
PCB-aroclor 1248	NC	NC	18	0	N/A	N/A	N/A	110	400	136.67
PCB-aroclor 1254	NC	1,600	18	0	N/A	N/A	N/A	110	400	136.67
PCB-aroclor 1260	NC	NC	18	0	N/A	N/A	N/A	110	400	136.67

## Notes:

<sup>1</sup> Model Toxics Control Act (MTCA) Cleanup Regulation Chapter 173-340 WAC.

<sup>2</sup> Considered a carcinogenic polycyclic aromatic hydrocarbon (cPAH) under WAC 173-349-708(8)(e).

µg/kg = microgram per kilogram

mg/kg = milligram per kilogram

NC = Cleanup level not established by Ecology

N/A = Not applicable

Values presented in bold indicate concentrations greater than established MTCA cleanup levels.

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**TABLE 3**  
**CHEMICAL DETECTION SUMMARY FOR GROUNDWATER - MARCH/APRIL**  
 318 STATE AVENUE NE  
 OLYMPIA, WASHINGTON

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	Number of Samples	Number of Detects	Minimum Detected Value	Maximum Detected Value	Average Detected Value	Minimum Non-detected Value	Maximum Non-detected Value
<b>Total Metals (mg/l)</b>								
Arsenic	0.005 <sup>2</sup>	9	5	0.0025	0.0079	0.0046	0.002	0.002
Barium	3.2 <sup>3</sup>	9	9	0.012	0.047	0.030	N/A	N/A
Cadmium	0.005 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.002	0.002
Chromium	0.05 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.025	0.025
Lead	0.015 <sup>2</sup>	9	1	0.0039	0.0039	0.0039	0.002	0.002
Mercury	0.002 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.0002	0.0002
Selenium	0.08 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Silver	0.08 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.02	0.02
<b>Dissolved Metals (mg/l)</b>								
Arsenic	0.005 <sup>2</sup>	9	4	0.0025	0.0053	0.0039	0.002	0.002
Barium	3.2 <sup>3</sup>	9	8	0.013	0.038	0.025	0.01	0.01
Cadmium	0.005 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.002	0.002
Chromium	0.05 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.025	0.025
Lead	0.015 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.002	0.002
Mercury	0.002 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.0002	0.0002
Selenium	0.08 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Silver	0.08 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.02	0.02
<b>Volatile Organic Compounds (µg/l)</b>								
1,1,1,2-Tetrachloroethane	1.7 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
1,1,1-Trichloroethane	200 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
1,1,2,2-Tetrachloroethane	0.22 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
1,1,2-Trichloroethane	0.77 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
1,1-Dichloroethane	800 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
1,1-Dichloroethene	400 <sup>3</sup>	9	1	0.32	0.32	0.32	0.1	0.1
1,1-Dichloropropene	NC	9	N/A	N/A	N/A	N/A	0.1	0.1
1,2,3-Trichlorobenzene	NC	9	N/A	N/A	N/A	N/A	0.4	0.4
1,2,3-Trichloropropane	0.0063 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.2	0.2
1,2,4-Trichlorobenzene	80 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.2	0.2
1,2,4-Trimethylbenzene	400 <sup>3</sup>	9	1	0.12	0.12	0.12	0.1	0.1
1,2-Dibromo-3-Chloropropane	0.031 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.2	0.2
1,2-Dichlorobenzene	720 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.2	0.2
1,2-Dichloroethane	5 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
1,2-Dichloropropane	0.64 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
1,3,5-Trimethylbenzene	400 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
1,3-Dichlorobenzene	NC	9	N/A	N/A	N/A	N/A	0.2	0.2
1,3-Dichloropropane	NC	9	N/A	N/A	N/A	N/A	0.1	0.1
2,2-Dichloropropane	NC	9	N/A	N/A	N/A	N/A	0.1	0.1
2-Chlorotoluene	160 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
4-Chlorotoluene	NC	9	N/A	N/A	N/A	N/A	0.2	0.2
Benzene	5 <sup>2</sup>	9	6	0.11	0.34	0.21	0.1	0.1
Bromobenzene	NC	9	N/A	N/A	N/A	N/A	0.1	0.1
Bromochloromethane	NC	9	N/A	N/A	N/A	N/A	0.1	0.1
Bromoform	5.5 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Bromomethane	11 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Carbon Tetrachloride	0.34 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
CFC-11	2,400 <sup>3</sup>	9	3	0.18	7.5	2.93	0.1	0.1
CFC-12	1,600 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.4	0.4
Chlorobenzene	160 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Chloroethane	15 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.2	0.2
Chloroform	7.2 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Chloromethane	3.4 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Cis-1,2-Dichloroethene	80 <sup>3</sup>	9	6	0.15	1.7	0.54	0.1	0.1
Cis-1,3-Dichloropropene	NC	9	N/A	N/A	N/A	N/A	0.1	0.1
Dibromochloromethane	0.52 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Dibromomethane	80 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Dichlorobromomethane	0.71 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Ethylbenzene	700 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Ethylene dibromide	0.01 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.019	0.02
Hexachlorobutadiene	0.56 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.2	0.2
Isopropylbenzene (Cumene)	800 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Methylene Chloride	5 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Naphthalene	160 <sup>2,3</sup>	9	N/A	N/A	N/A	N/A	0.4	0.4
n-Butylbenzene	NC	9	N/A	N/A	N/A	N/A	0.1	0.1
n-Propylbenzene	NC	9	N/A	N/A	N/A	N/A	0.1	0.1
p-Isopropyltoluene	NC	9	N/A	N/A	N/A	N/A	0.2	0.2
Sec-Butylbenzene	NC	9	1	0.12	0.12	0.12	0.1	0.1
Styrene	1.5 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.1	0.1
Tert-Butylbenzene	NC	9	1	0.1	0.1	0.1	0.1	0.1
Tetrachloroethene	5 <sup>2</sup>	9	1	0.24	0.24	0.24	0.1	0.1

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	Number of Samples	Number of Detects	Minimum Detected Value	Maximum Detected Value	Average Detected Value	Minimum Non-detected Value	Maximum Non-detected Value
Toluene	1,000 <sup>2</sup>	9	9	0.13	0.23	0.16	N/A	N/A
Total Xylenes	1,000 <sup>2</sup>	9	4	0.2	0.34	0.25	0.2	0.2
Trans-1,2-Dichloroethene	160 <sup>3</sup>	9	1	0.19	0.19	0.19	0.1	0.1
Trans-1,3-Dichloropropene	NC	9	N/A	N/A	N/A	N/A	0.1	0.1
Trichloroethene	5 <sup>2</sup>	9	5	0.22	5.3	2.21	0.1	0.1
Vinyl Chloride	0.2 <sup>2</sup>	9	7	0.27	3.5	1.22	0.02	0.02
<b>Semi-volatile Organic Compounds (µg/l)</b>								
1,2,4-Trichlorobenzene	80 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
1,2-Dichlorobenzene	720 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
1,3-Dichlorobenzene	NC	9	N/A	N/A	N/A	N/A	0.19	0.2
1,4-Dichlorobenzene	1.8 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
2,2'-Oxybis[1-chloropropane]	0.63 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
2,4,5-Trichlorophenol	800 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
2,4,6-Trichlorophenol	4 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.28	0.3
2,4-Dichlorophenol	24 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
2,4-Dimethylphenol	160 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.94	0.99
2,4-Dinitrophenol	32 <sup>3</sup>	9	N/A	N/A	N/A	N/A	2.4	2.5
2,4-Dinitrotoluene	32 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
2,6-Dinitrotoluene	16 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
2-Chloronaphthalene	640 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.028	0.03
2-Chlorophenol	40 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
2-Nitroaniline	NC	9	N/A	N/A	N/A	N/A	0.19	0.2
2-Nitrophenol	NC	9	N/A	N/A	N/A	N/A	0.19	0.2
3,3'-Dichlorobenzidine	0.19 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.94	0.99
4,6-Dinitro-2-Methylphenol	NC	9	N/A	N/A	N/A	N/A	1.9	2
4-Bromophenyl phenyl ether	NC	9	N/A	N/A	N/A	N/A	0.19	0.2
4-Chloro-3-Methylphenol	NC	9	N/A	N/A	N/A	N/A	0.19	0.2
4-Chloroaniline	32 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
4-Chlorophenyl-Phenylether	NC	9	N/A	N/A	N/A	N/A	0.19	0.2
4-Nitroaniline	NC	9	N/A	N/A	N/A	N/A	0.28	0.3
4-Nitrophenol	NC	9	N/A	N/A	N/A	N/A	0.94	0.99
Anthracene	4,800 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.019	0.02
Benzoic Acid	64,000 <sup>3</sup>	9	5	1.2	1.3	1.22	0.98	0.99
Benzyl Alcohol	2,400 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
Bis(2-Chloroethoxy)Methane	NC	9	N/A	N/A	N/A	N/A	0.19	0.2
Bis(2-Chloroethyl)Ether	0.04 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
Bis(2-Ethylhexyl) Phthalate	6.3 <sup>3</sup>	9	N/A	N/A	N/A	N/A	1.4	1.5
Butyl benzyl phthalate	3,200 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.28	0.3
Carbazole	4.4 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
Dibenzofuran	32 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
Dibutyl phthalate	1,600 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
Diethyl phthalate	13,000 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
Dimethyl phthalate	16,000 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
Di-N-Octyl Phthalate	320 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
Hexachlorobenzene	0.055 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
Hexachlorobutadiene	0.56 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.28	0.3
Hexachlorocyclopentadiene	48 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.94	0.99
Hexachloroethane	3.1 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.28	0.3
Isophorone	46 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
m-Nitroaniline	NC	9	N/A	N/A	N/A	N/A	0.19	0.2
Nitrobenzene	4 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
N-Nitrosodi-n-propylamine	NC	9	N/A	N/A	N/A	N/A	0.19	0.2
N-Nitrosodiphenylamine	NC	9	N/A	N/A	N/A	N/A	0.19	0.2
o-Cresol	400 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
p-Cresol	43 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.38	0.4
Pentachlorophenol	0.73 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.33	0.35
Phenol	4,800 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.28	0.3
<b>Polycyclic Aromatic Hydrocarbon (µg/l)</b>								
1-Methylnaphthalene	2.4 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.028	0.03
2-Methylnaphthalene	32 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.094	0.099
Acenaphthene	960 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.047	0.05
Acenaphthylene	NC	9	N/A	N/A	N/A	N/A	0.038	0.04
Benz[a]anthracene <sup>4</sup>	NC	9	N/A	N/A	N/A	N/A	0.028	0.03
Benzo(a)pyrene <sup>4</sup>	0.1 <sup>2</sup>	9	1	0.044	0.044	0.044	0.019	0.02
Benzo(b)fluoranthene <sup>4</sup>	NC	9	N/A	N/A	N/A	N/A	0.038	0.04
Benzo(ghi)perylene <sup>4</sup>	NC	9	N/A	N/A	N/A	N/A	0.028	0.03
Benzo(k)fluoranthene <sup>4</sup>	NC	9	N/A	N/A	N/A	N/A	0.028	0.03
Chrysene <sup>4</sup>	NC	9	N/A	N/A	N/A	N/A	0.019	0.02
Dibenzo(a,h)anthracene	0.1 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.028	0.03
Fluoranthene	NC	9	N/A	N/A	N/A	N/A	0.024	0.025
Fluorene	NC	9	N/A	N/A	N/A	N/A	0.028	0.03
Indeno(1,2,3-cd)pyrene <sup>4</sup>	NC	9	N/A	N/A	N/A	N/A	0.028	0.03
Naphthalene	160 <sup>2,3</sup>	9	N/A	N/A	N/A	N/A	0.19	0.2
Phenanthrene	NC	9	N/A	N/A	N/A	N/A	0.038	0.04
Pyrene	480 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.028	0.03

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	Number of Samples	Number of Detects	Minimum Detected Value	Maximum Detected Value	Average Detected Value	Minimum Non-detected Value	Maximum Non-detected Value
<b>Total Petroleum Hydrocarbons (mg/l)</b>								
Gasoline Range Hydrocarbons	1 / 0.8 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.05	0.05
Diesel Range Hydrocarbons	0.5 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.012	0.12
Heavy Oil Range Hydrocarbons	0.5 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.025	0.25
<b>Polychlorinated Biphenyls (µg/l)</b>								
PCB-aroclor 1016	1.1 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.47	0.5
PCB-aroclor 1221	0.1 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.47	0.5
PCB-aroclor 1232	0.1 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.47	0.5
PCB-aroclor 1242	0.1 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.47	0.5
PCB-aroclor 1248	0.1 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.47	0.5
PCB-aroclor 1254	0.32 <sup>3</sup>	9	N/A	N/A	N/A	N/A	0.47	0.5
PCB-aroclor 1260	0.1 <sup>2</sup>	9	N/A	N/A	N/A	N/A	0.47	0.5

## Notes:

<sup>1</sup> Model Toxics Control Act (MTCA) Cleanup Regulation Chapter 173-340 WAC. MTCA Method A cleanup levels are presented for chemicals that have Method A criteria. Method B cleanup levels are represented for chemicals that do not have Method A criteria.

<sup>2</sup> MTCA Method A cleanup level

<sup>3</sup> MTCA Method B cleanup level

<sup>4</sup> Considered a carcinogenic polycyclic aromatic hydrocarbon.

mg/l = milligrams per liter

µg/l - micrograms per liter

NC = Cleanup criteria not established by Washington State Department of Ecology

N/A = Not applicable

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**TABLE 4**  
**CHEMICAL DETECTION SUMMARY FOR GROUNDWATER - OCTOBER/NOVEMBER**  
**318 STATE AVENUE NE**  
**OLYMPIA, WASHINGTON**

Analyte	MTCA Cleanup Level <sup>1</sup>	Number of Samples	Number of Detects	Minimum Detected Value	Maximum Detected Value	Average Detected Value	Minimum Non-detected Value	Maximum Non-detected Value
<b>Total Metals (mg/l)</b>								
Arsenic	0.005 <sup>2</sup>	16	16	0.0036	0.063	0.0119	N/A	N/A
Lead	0.015 <sup>2</sup>	16	3	0.0034	0.0074	0.0049	0.002	0.002
Mercury	0.002 <sup>2</sup>	16	0	N/A	N/A	N/A	0.001	0.001
<b>Dissolved Metals (mg/l)</b>								
Arsenic	0.005 <sup>2</sup>	16	16	0.0039	0.062	0.0129	N/A	N/A
Lead	0.015 <sup>2</sup>	16	0	N/A	N/A	N/A	0.002	0.002
Mercury	0.002 <sup>2</sup>	16	0	N/A	N/A	N/A	0.001	0.001
<b>Volatile Organic Compounds (µg/l)</b>								
1,1,1,2-Tetrachloroethane	1.7 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
1,1,1-Trichloroethane	200 <sup>2</sup>	16	0	N/A	N/A	N/A	1	1
1,1,2,2-Tetrachloroethane	0.22 <sup>3</sup>	16	0	N/A	N/A	N/A	0.33	0.33
1,1,2-Trichloroethane	0.77 <sup>3</sup>	16	0	N/A	N/A	N/A	0.29	0.29
1,1-Dichloroethane	1,600 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
1,1-Dichloroethene	400 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
1,1-Dichloropropene	NC	16	0	N/A	N/A	N/A	1	1
1,2,3-Trichlorobenzene	NC	16	0	N/A	N/A	N/A	1	1
1,2,3-Trichloropropane	0.0063 <sup>3</sup>	16	0	N/A	N/A	N/A	0.46	0.46
1,2,4-Trichlorobenzene	80 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
1,2,4-Trimethylbenzene	400 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
1,2-Dibromo-3-Chloropropane	0.031 <sup>3</sup>	16	0	N/A	N/A	N/A	0.49	0.49
1,2-Dichlorobenzene	720 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
1,2-Dichloroethane	5 <sup>2</sup>	16	0	N/A	N/A	N/A	0.22	0.22
1,2-Dichloropropane	0.64 <sup>3</sup>	16	0	N/A	N/A	N/A	0.44	0.44
1,3,5-Trimethylbenzene	400 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
1,3-Dichlorobenzene	NC	16	0	N/A	N/A	N/A	1	1
1,4-Dichlorobenzene	1.8 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
2,2-Dichloropropane	NC	16	0	N/A	N/A	N/A	1	1
2-Chlorotoluene	160 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
4-Chlorotoluene	NC	16	0	N/A	N/A	N/A	1	1
Benzene	5 <sup>2</sup>	16	3	0.4	0.95	0.6833	0.37	0.37
Bromobenzene	NC	16	0	N/A	N/A	N/A	1	1
Bromochloromethane	NC	16	0	N/A	N/A	N/A	1	1
Bromoform	5.5 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Bromomethane	11 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Carbon Tetrachloride	0.34 <sup>3</sup>	16	0	N/A	N/A	N/A	0.42	0.42
CFC-11	2,400 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
CFC-12	1,600 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Chlorobenzene	160 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Chloroethane	15 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Chloroform	7.2 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Chloromethane	3.4 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Cis-1,2-Dichloroethene	80 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Cis-1,3-Dichloropropene	NC	16	0	N/A	N/A	N/A	1	1
Dibromochloromethane	0.52 <sup>3</sup>	16	0	N/A	N/A	N/A	0.36	0.36
Dibromomethane	80 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Dichlorobromomethane	0.71 <sup>3</sup>	16	0	N/A	N/A	N/A	0.41	0.41
Ethylbenzene	700 <sup>2</sup>	16	0	N/A	N/A	N/A	1	1
Ethylene dibromide	0.01 <sup>2</sup>	16	0	N/A	N/A	N/A	1	1
Hexachlorobutadiene	0.56 <sup>3</sup>	16	0	N/A	N/A	N/A	0.29	0.29
Isopropylbenzene (Cumene)	800 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Methylene Chloride	5 <sup>2</sup>	16	0	N/A	N/A	N/A	1	1
n-Butylbenzene	NC	16	0	N/A	N/A	N/A	1	1
n-Propylbenzene	NC	16	0	N/A	N/A	N/A	1	1
p-Isopropyltoluene	NC	16	0	N/A	N/A	N/A	1	1
Sec-Butylbenzene	NC	16	0	N/A	N/A	N/A	1	1
Styrene	1.5 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Tert-Butylbenzene	NC	16	0	N/A	N/A	N/A	1	1
Tetrachloroethene	5 <sup>2</sup>	16	5	0.49	0.98	0.7060	0.47	0.47
Toluene	1,000 <sup>2</sup>	16	0	N/A	N/A	N/A	1	1
Total Xylenes	1,000 <sup>2</sup>	16	0	N/A	N/A	N/A	3	3
Trans-1,2-Dichloroethene	160 <sup>3</sup>	16	0	N/A	N/A	N/A	1	1
Trans-1,3-Dichloropropene	NC	16	0	N/A	N/A	N/A	1	1
Trichloroethene	5 <sup>2</sup>	16	0	N/A	N/A	N/A	0.4	0.4
Vinyl Chloride	0.2 <sup>2</sup>	16	0	N/A	N/A	N/A	0.18	0.18
<b>Semi-Volatile Organic Compounds (µg/l)</b>								
1,2,4-Trichlorobenzene	80 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
1,2-Dichlorobenzene	5 <sup>2</sup>	16	0	N/A	N/A	N/A	2	2
1,3-Dichlorobenzene	NC	16	0	N/A	N/A	N/A	2	2
1,3-Dinitrobenzene	1.6 <sup>3</sup>	16	0	N/A	N/A	N/A	10	10
1,4-Dichlorobenzene	1.8 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
1,4-Dinitrobenzene	6.4 <sup>3</sup>	16	0	N/A	N/A	N/A	10	10



Analyte	MTCA Cleanup Level <sup>1</sup>	Number of Samples	Number of Detects	Minimum Detected Value	Maximum Detected Value	Average Detected Value	Minimum Non-detected Value	Maximum Non-detected Value
2,2'-Oxybis[1-chloropropane]	0.63 <sup>3</sup>	16	0	N/A	N/A	N/A	10	10
2,3,4,6-Tetrachlorophenol	480 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
2,3,5,6-Tetrachlorophenol	NC	16	0	N/A	N/A	N/A	2	2
2,4,5-Trichlorophenol	800 <sup>3</sup>	16	0	N/A	N/A	N/A	10	10
2,4,6-Trichlorophenol	4 <sup>3</sup>	16	0	N/A	N/A	N/A	10	10
2,4-Dichlorophenol	24 <sup>3</sup>	16	0	N/A	N/A	N/A	10	10
2,4-Dimethylphenol	160 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
2,4-Dinitrophenol	32 <sup>3</sup>	16	0	N/A	N/A	N/A	10	10
2,4-Dinitrotoluene	32 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
2,6-Dinitrotoluene	16 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
2-Chloronaphthalene	640 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
2-Chlorophenol	40 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
2-Nitroaniline	NC	16	0	N/A	N/A	N/A	10	10
2-Nitrophenol	NC	16	0	N/A	N/A	N/A	10	10
4,6-Dinitro-2-Methylphenol	NC	16	0	N/A	N/A	N/A	10	10
4-Bromophenyl phenyl ether	NC	16	0	N/A	N/A	N/A	2	2
4-Chloro-3-Methylphenol	NC	16	0	N/A	N/A	N/A	10	10
4-Chloroaniline	32 <sup>3</sup>	16	0	N/A	N/A	N/A	10	10
4-Chlorophenyl-Phenylether	NC	16	0	N/A	N/A	N/A	2	2
4-Nitroaniline	NC	16	0	N/A	N/A	N/A	10	10
4-Nitrophenol	NC	16	0	N/A	N/A	N/A	10	10
Aniline	7.7 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Benzyl Alcohol	2,400 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Bis(2-Chloroethoxy)Methane	NC	16	0	N/A	N/A	N/A	2	2
Bis(2-Chloroethyl)Ether	0.04 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Bis(2-Ethylhexyl) Phthalate	6.3 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Butyl benzyl phthalate	3,200 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Carbazole	4.4 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Dibenzofuran	32 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Dibutyl phthalate	1,600 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Diethyl phthalate	13,000 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Dimethyl phthalate	16,000 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Di-N-Octyl Phthalate	320 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Hexachlorobenzene	0.055 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Hexachlorobutadiene	0.56 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Hexachlorocyclopentadiene	48 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Hexachloroethane	3.1 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	73 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Isophorone	46 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
m-Nitroaniline	NC	16	0	N/A	N/A	N/A	10	10
Naphthalene	160 <sup>2,3</sup>	16	0	N/A	N/A	N/A	2	2
Nitrobenzene	4 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
N-Nitrosodi-n-propylamine	4 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
N-Nitrosodiphenylamine	4 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
o-Cresol	4 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Pentachlorophenol	0.73 <sup>3</sup>	16	0	N/A	N/A	N/A	10	10
Phenanthrene	NC	16	0	N/A	N/A	N/A	2	2
Phenol	4,800 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
Pyridine	8 <sup>3</sup>	16	0	N/A	N/A	N/A	2	2
<b>Polycyclic Aromatic Hydrocarbons (µg/l)</b>								
1-Methylnaphthalene	2.4 <sup>3</sup>	16	0	N/A	N/A	N/A	0.02	0.02
2-Methylnaphthalene	32 <sup>3</sup>	16	0	N/A	N/A	N/A	0.02	0.02
Acenaphthene	960 <sup>3</sup>	16	0	N/A	N/A	N/A	0.02	0.02
Acenaphthylene	NC	16	0	N/A	N/A	N/A	0.02	0.02
Anthracene	4,800 <sup>3</sup>	16	0	N/A	N/A	N/A	0.02	0.02
Benz[a]anthracene <sup>4</sup>	NC	16	0	N/A	N/A	N/A	0.02	0.02
Benzo(a)pyrene <sup>4</sup>	0.1 <sup>2</sup>	16	0	N/A	N/A	N/A	0.02	0.02
Benzo(b)fluoranthene <sup>4</sup>	NC	16	0	N/A	N/A	N/A	0.02	0.02
Benzo(ghi)perylene	NC	16	0	N/A	N/A	N/A	0.02	0.02
Benzo(k)fluoranthene <sup>4</sup>	NC	16	0	N/A	N/A	N/A	0.02	0.02
Chrysene <sup>4</sup>	NC	16	0	N/A	N/A	N/A	0.02	0.02
Dibenzo(a,h)anthracene <sup>4</sup>	NC	16	0	N/A	N/A	N/A	0.02	0.02
Fluoranthene	640 <sup>3</sup>	16	0	N/A	N/A	N/A	0.02	0.02
Fluorene	640 <sup>3</sup>	16	0	N/A	N/A	N/A	0.02	0.02
Indeno(1,2,3-cd)pyrene <sup>4</sup>	NC	16	0	N/A	N/A	N/A	0.02	0.02
Naphthalene	160 <sup>2,3</sup>	16	0	N/A	N/A	N/A	0.02	0.02
Phenanthrene	0.73 <sup>3</sup>	16	0	N/A	N/A	N/A	0.02	0.02
Pyrene	480 <sup>3</sup>	16	0	N/A	N/A	N/A	0.02	0.02

## Notes:

<sup>1</sup> Model Toxics Control Act (MTCA) Cleanup Regulation Chapter 173-340 WAC. MTCA Method A cleanup levels are presented for chemicals that have Method A criteria. Method B cleanup levels are represented for chemicals that do not have Method A criteria.

<sup>2</sup> MTCA Method A cleanup level.

<sup>3</sup> MTCA Method B cleanup level.

<sup>4</sup> Considered a carcinogenic polycyclic aromatic hydrocarbon under MTCA.

mg/kg = milligrams per kilogram

µg/l = micrograms per liter

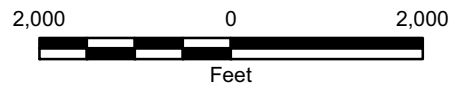
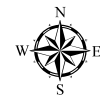
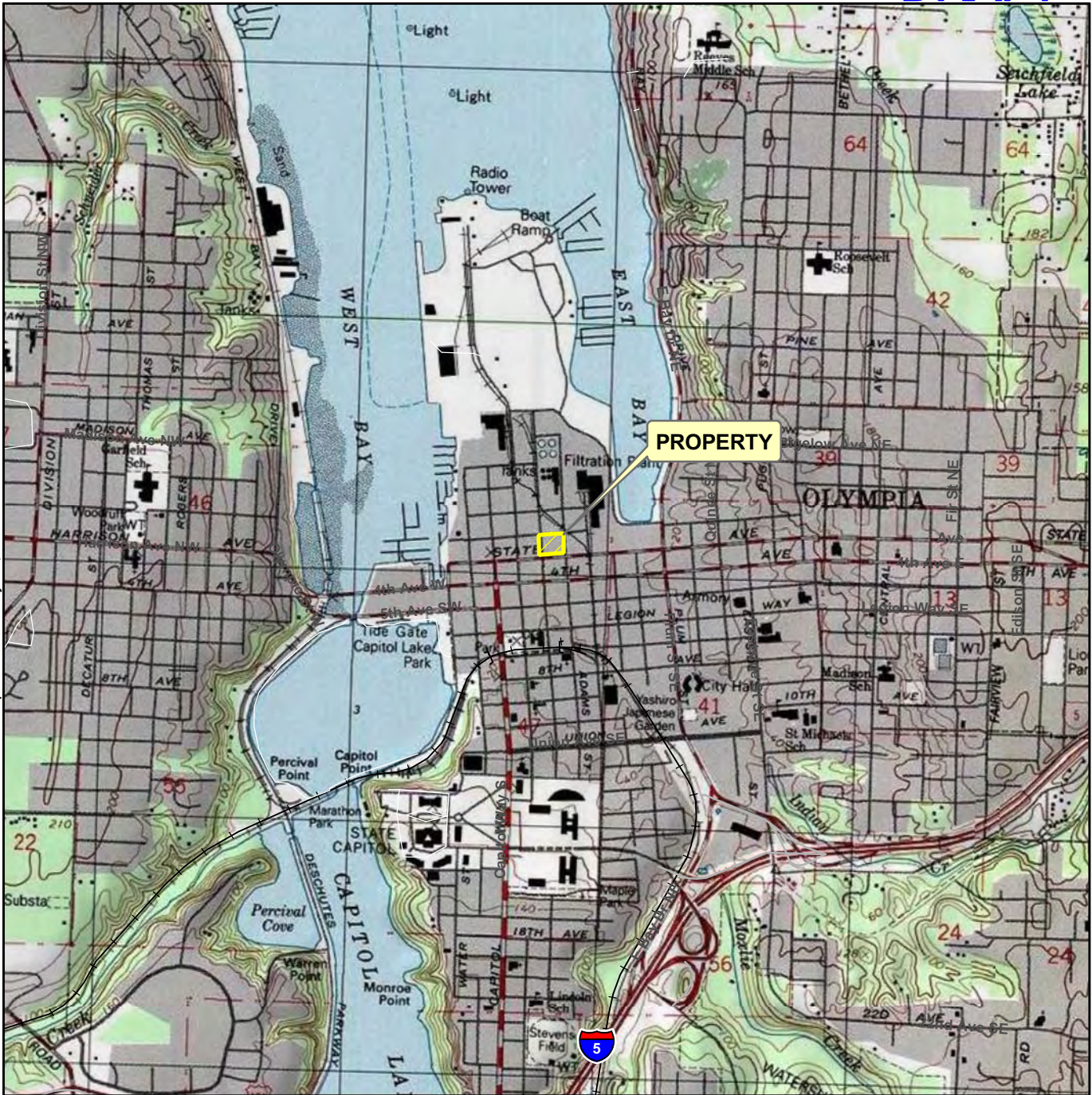
NC = Cleanup criteria not established by Washington State Department of Ecology

N/A = Not applicable

Map Revised: July 16, 2008

Path: P:\0415049\GIS\041504902\_F1.mxd


Office: TAC



Notes:


1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

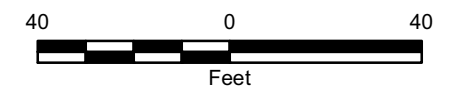
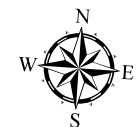
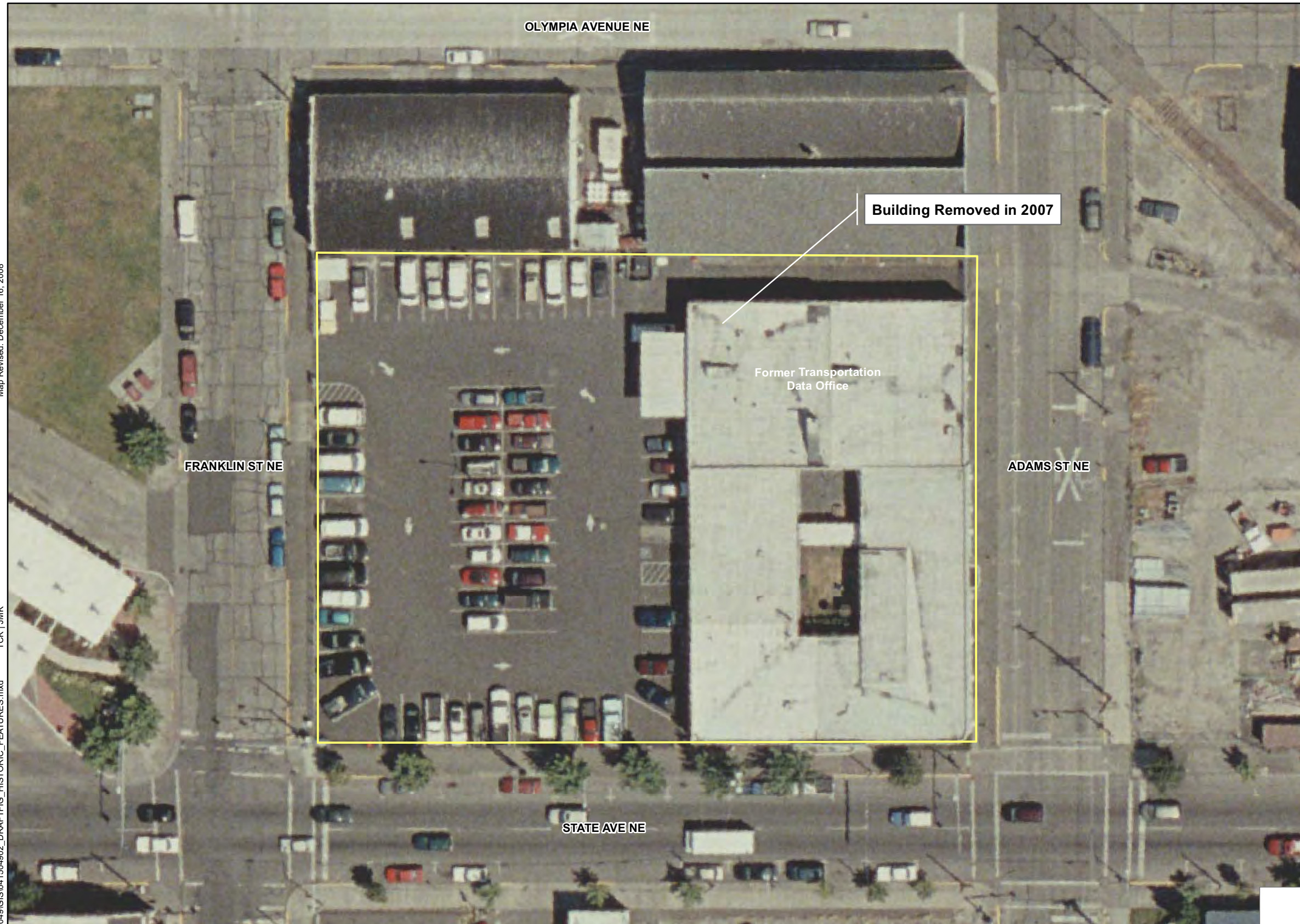
Data Sources: Interstates, state routes, and roads from TIGER 2000.  
 County boundaries, cities, and waterbodies from Department of Ecology.  
 USGS topo map provided by TerraServer (DRG-Scale4m).  
 Lambert Conformal Conic, Washington State Plane North, North American Datum 1983

<b>Vicinity Map</b>	
318 State Avenue NE Olympia, Washington	
<b>GEOENGINEERS</b> 	<b>Figure 1</b>

# DRAFT

### Explanation

 Approximate Property Boundary



### Site Map

318 State Avenue NE  
Olympia, Washington



Figure 2

Map Revised: December 16, 2008

TCK | JMK

Path: P:\010415049\GIS\041504902\_DRAFT\FIG\_HISTORIC\_FEATURES.mxd

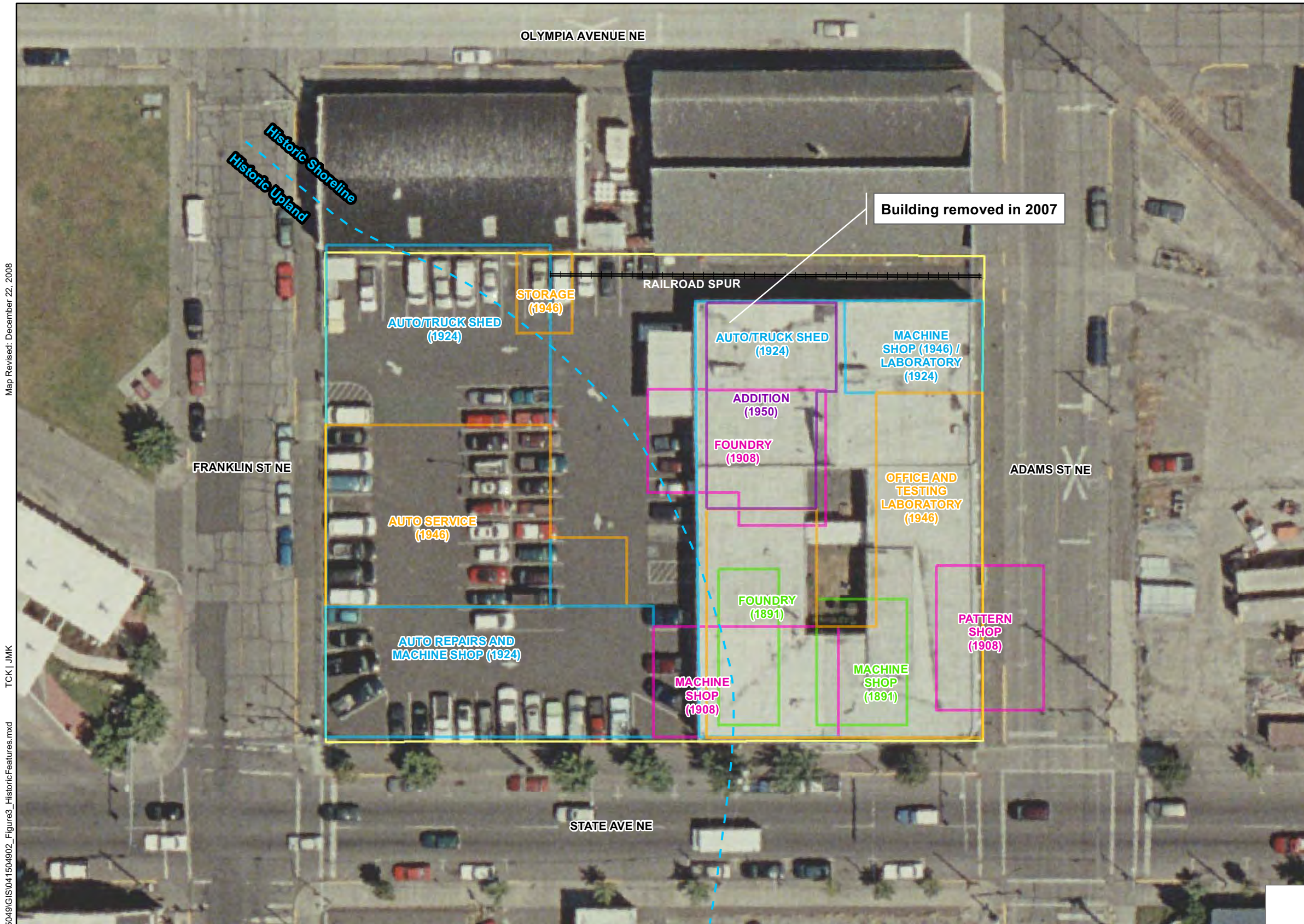
Office: TACO

#### Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Sources: Approximate Property Boundary from Thurston County parcels (revised by GeoEngineers).  
Aerial photograph (2003) from Thurston County Data Center. Data Frame Rotated 356.  
Projection: NAD\_1983\_StatePlane\_Washington\_South\_FIPS\_4602\_Feet  
Datum: D\_North\_American\_1983

# DRAFT

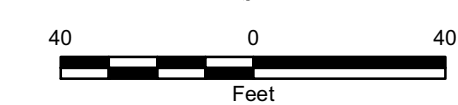


### Explanation

- Approximate Property Boundary
- Railroad Spur
- Historic Upland/Shoreline (circa 1888)

### Approximate Location of Historic On-Site Features Based on Sanborn Fire Insurance Maps

- 1950
- 1946
- 1924
- 1908
- 1891



### Historic Features

318 State Avenue NE  
Olympia, Washington



**Figure 3**

Map Revised: December 22, 2008

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**Notes:**

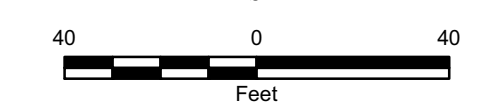
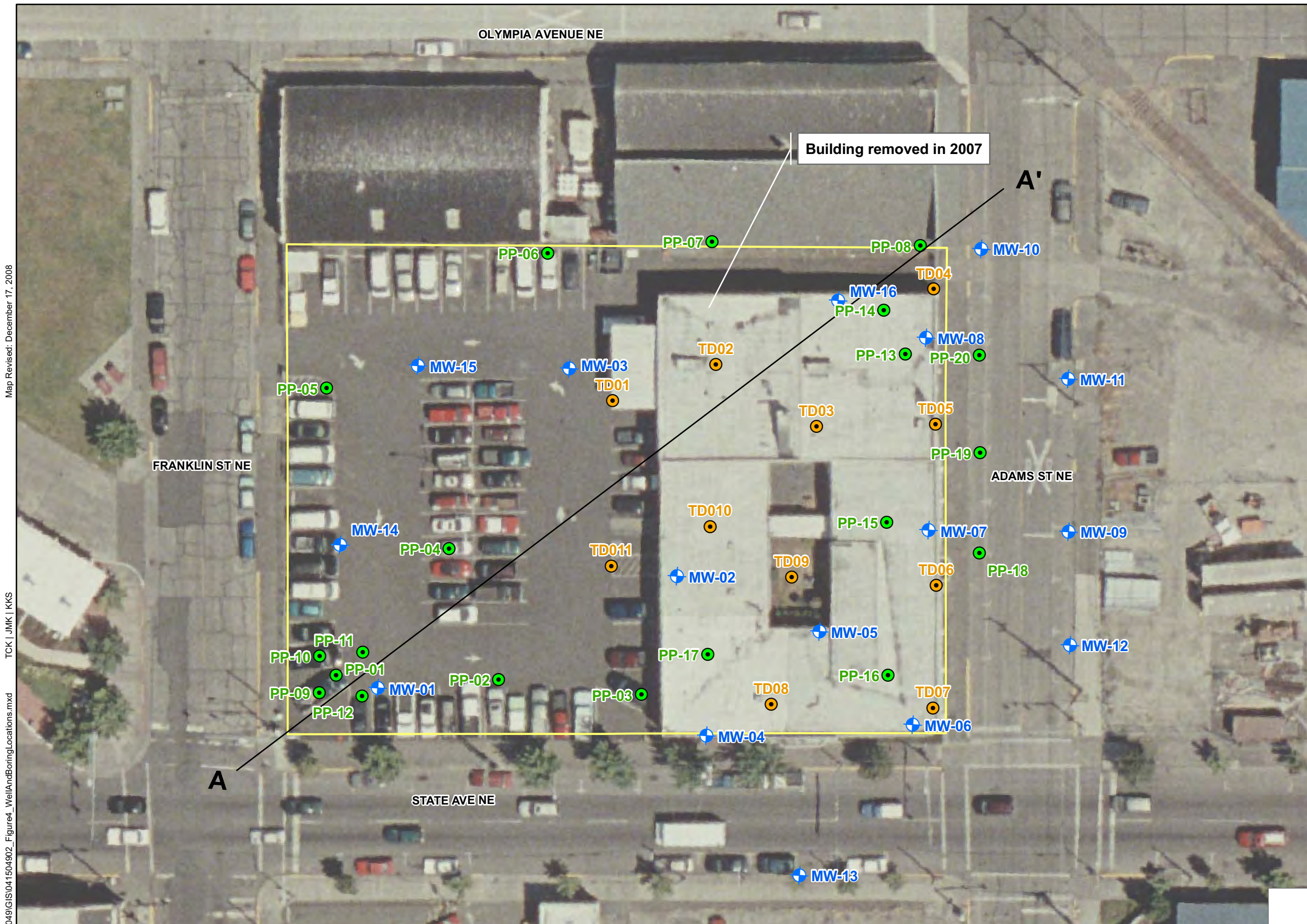
1. This figure provides a summary of historical features present on the property, but does not include all historic features that were present on the property.
2. The locations of all features shown are approximate.
3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Sources: Approximate Property Boundary from Thurston County parcels (revised by GeoEngineers).  
Aerial photograph (2003) from Thurston County Data Center. Data Frame Rotated 356.  
Projection: NAD\_1983\_StatePlane\_Washington\_South\_FIPS\_4602\_Feet  
Datum: D\_North\_American\_1983

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### Explanation

-  Approximate Property Boundary
-  MW-01 GeoEngineers Monitoring Well Location and ID (March and October 2008)
-  PP-01 GeoEngineers Direct-Push Location and ID (July and September 2006, and October 2008)
-  TD01 WSDOT Direct-Push Boring Location and ID (October 2007)



### Monitoring Well and Direct-Push Boring Locations

318 State Avenue NE  
Olympia, Washington



Figure 4

Map Revised: December 17, 2008

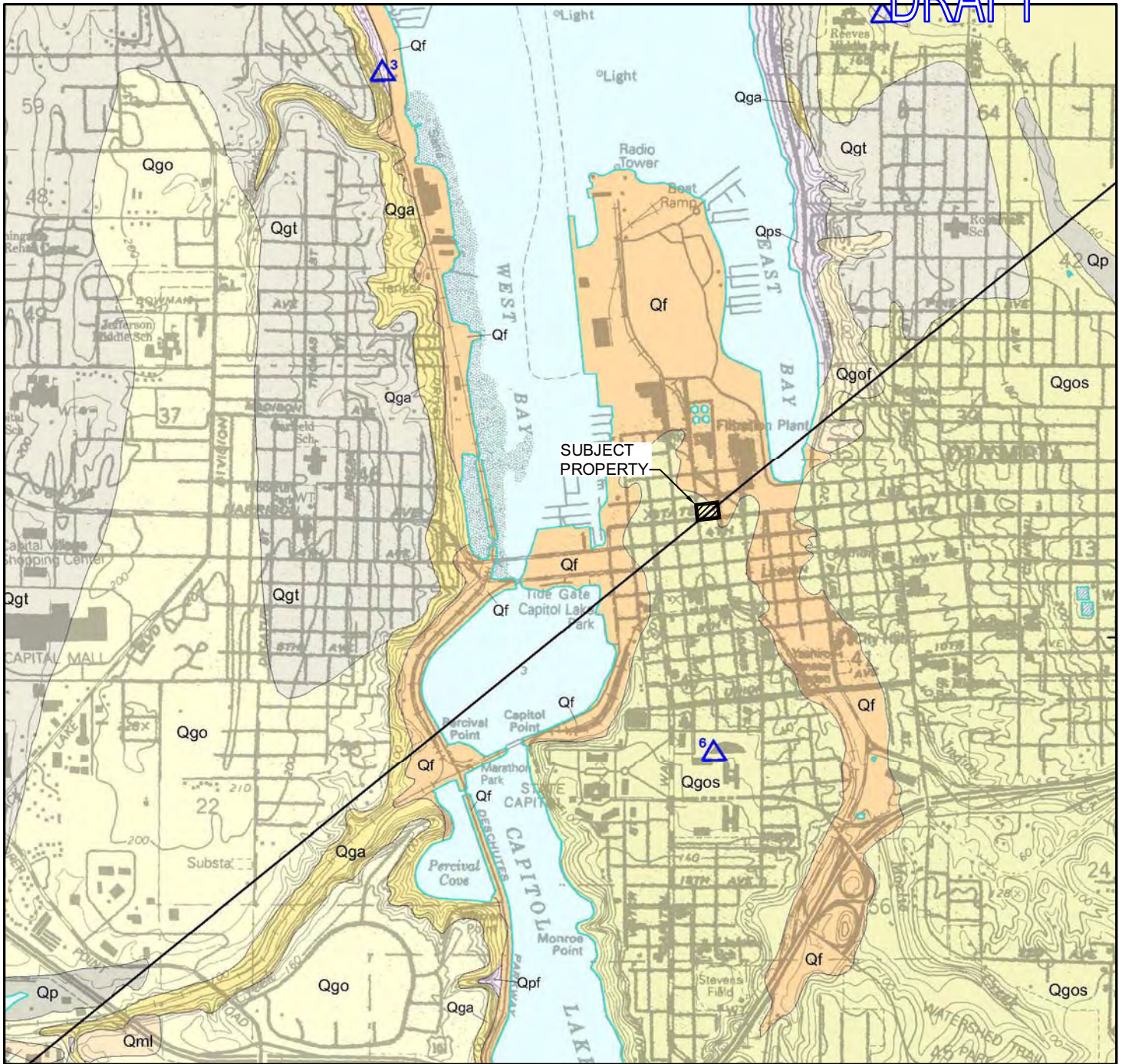
TCK | JMK | KKS

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- Notes:
1. The locations of all features shown are approximate.
  2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
  3. Cross section A-A' shown on Figure 6 (drawn by GeoEngineers, Inc.)

Data Sources: Approximate Property Boundary from Thurston County parcels (revised by GeoEngineers).  
Aerial photograph (2003) from Thurston County Data Center. Data Frame Rotated 356.  
Projection: NAD\_1983\_StatePlane\_Washington\_South\_FIPS\_4602\_Feet  
Datum: D\_North\_American\_1983

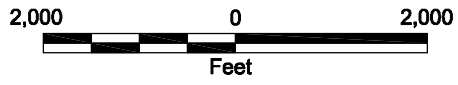


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**Legend**

- Qf = Fill
- Qgos = Latest Vashon recessional sand and minor silt



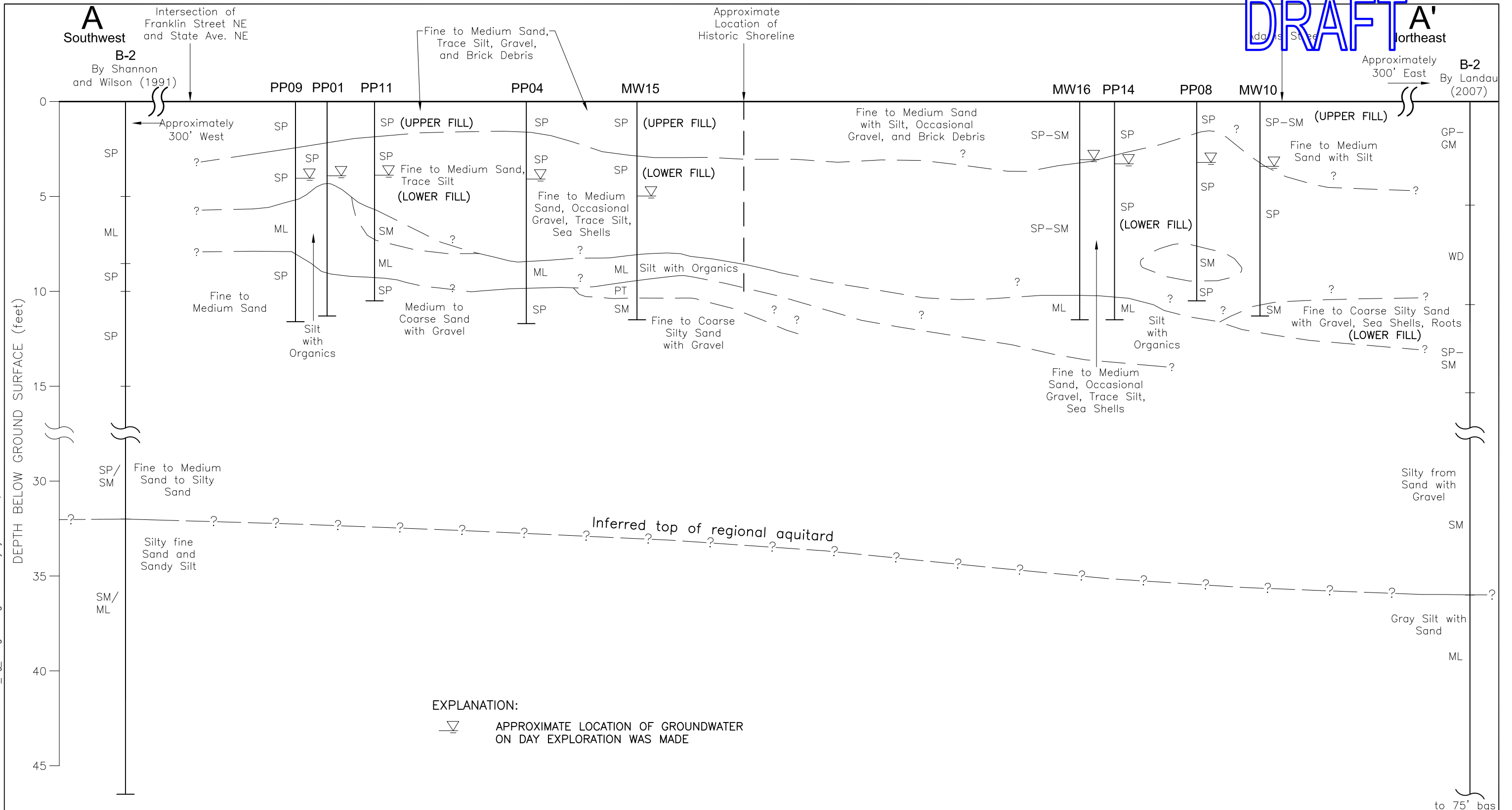
**Notes:**

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Washington State Department of Natural Resources (DNR).  
DNR included a cross section through the Olympia region.  
The DNR cross section is not included in this report.

<b>Regional Geologic Map</b>	
318 State Avenue NE Olympia, Washington	
<b>GEOENGINEERS</b>	<b>Figure 5</b>

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Notes:

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2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. See appendix D for soil classification symbols.

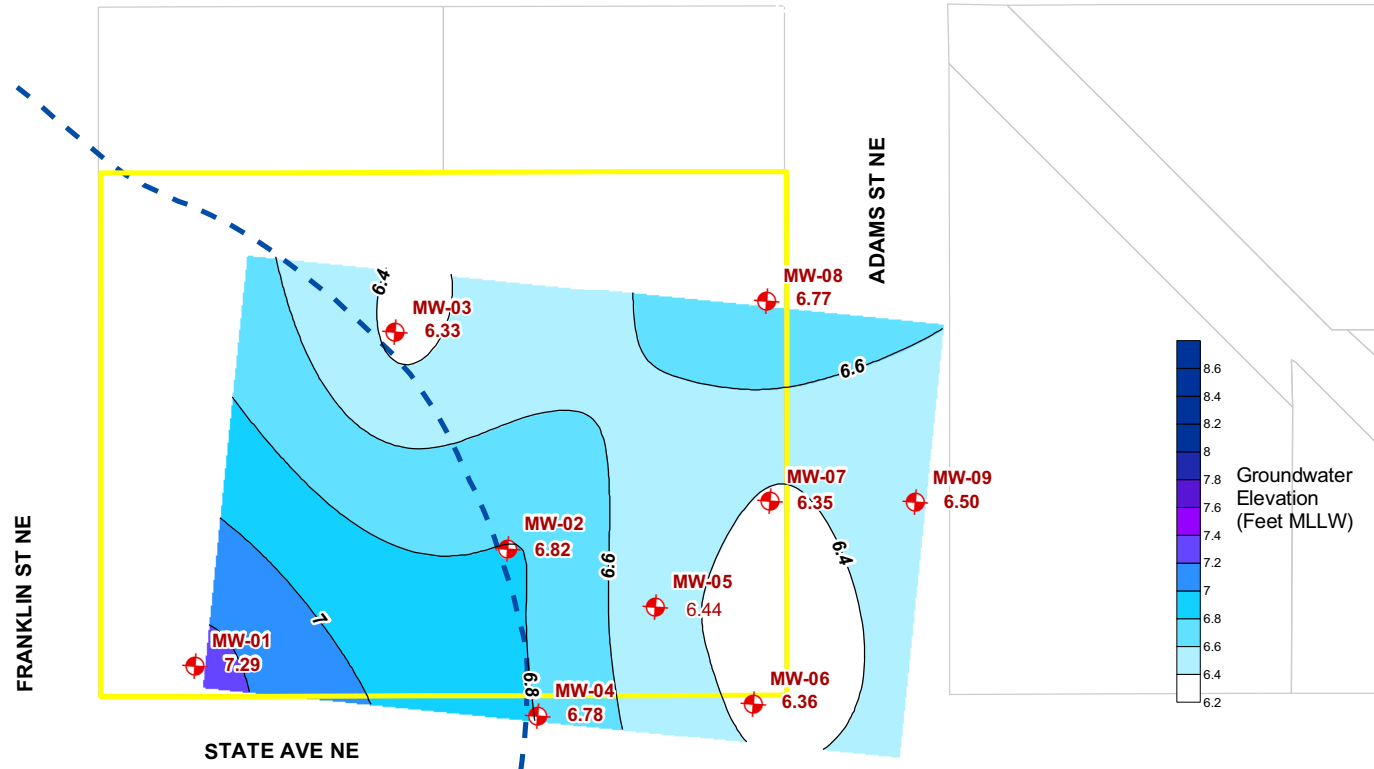
Reference: Drawing created by GeoEngineers personnel.

HORIZONTAL SCALE: 1" = 30'  
 VERTICAL SCALE: 1" = 5'  
 VERTICAL EXAGGERATION: 6X

<b>Geologic Cross Section</b>	
318 State Avenue NE Olympia, Washington	
<b>GEOENGINEERS</b> 	<b>Figure 6</b>

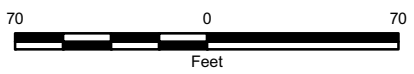
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OLYMPIA AVENUE NE



- MW01** 7.29 GeoEngineers Monitoring Well Location, ID and Groundwater Elevation (2008)
- Approximate Property Boundary
- Parcel Boundary
- Groundwater Contours (0.2-ft interval)
- Historic Shoreline

Reference: Property boundary and parcels from Thurston County.  
 Notes: 1. Map shown is based on measurements at low tide. Measurements for high tide were the same to within +/- 0.05 feet.  
 2. The locations of all features shown are approximate.  
 3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.



**Potentiometric Surface Map - April 15, 2008 Measurements**  
 318 State Avenue NE  
 Olympia, Washington

**GEOENGINEERS** **Figure 7**



# DRAFT

Map Revised: February 18, 2009

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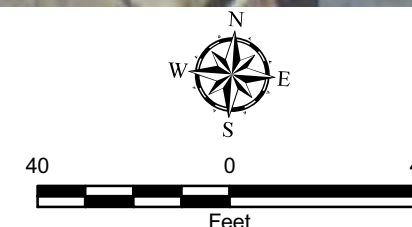
Location	Depth (ft bgs)	Result
<b>PP15</b>		
TCE	2-4	2,300 ug/kg
cPAH	2-4	678.3 ug/kg
<b>PP16</b>		
Lead	2-4	350 mg/kg
TCE	2-4	46 ug/kg
cPAH	2-4	1270.7 ug/kg
TCE	6-8	55 ug/kg
<b>PP17</b>		
Arsenic	2-4	23 mg/kg
Lead	2-4	840 mg/kg
<b>TD03</b>		
TCE	4-4.5	230 ug/kg
<b>TD05</b>		
Arsenic	2-2.5	40 mg/kg
cPAH	2-2.5	1,715.6 ug/kg
<b>TD08</b>		
TCE	4-4.5	82 ug/kg
<b>TD09</b>		
TCE	4-4.5	600 ug/kg
<b>MW02</b>		
TCE	7-7.5	900 ug/kg
<b>MW07</b>		
TCE	7-7.5	45 ug/kg
<b>MW-15</b>		
Lead	3-3.5	510 mg/kg
<b>PP19</b>		
cPAH	3-3.5	4,860 ug/kg

**Explanation**

- Approximate Property Boundary
- Arsenic and/or Lead at concentration >MTCA Method A (20 mg/kg and 250 mg/kg respectively)
- TCE at concentration >MTCA Method A (30 ug/kg)
- cPAH at concentration >MTCA Method A (100 ug/kg)
- Chemicals of Concern not present at concentrations greater than CULs

Notes:  
 1. The locations of all features shown are approximate.  
 2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Sources: Approximate Property Boundary from Thurston County parcels (revised by GeoEngineers). Aerial photograph (2003) from Thurston County Data Center. Data Frame Rotated 356.  
 Projection: NAD\_1983\_StatePlane\_Washington\_South\_FIPS\_4602\_Feet  
 Datum: D\_North\_American\_1983



**Chemicals of Concern in Soil**

318 State Avenue NE  
 Olympia, Washington



**Figure 8**

# DRAFT

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 TCK | JMK  
 Office: TAC  
 Map Revised: February 18, 2009



Well	Event	Result*
MW-01	Arsenic Mar/Apr	0.0079 / 0.0053 mg/l
	Arsenic Oct/Nov	0.013 / 0.014 mg/l
MW-02	TCE Mar/Apr	5.3 ug/l
	VC Mar/Apr	0.45 ug/l
	Arsenic Oct/Nov	0.0093 / 0.0095 mg/l
MW-03	VC Mar/Apr	1.7 ug/l
	Arsenic Oct/Nov	0.0059 / 0.0058 mg/l
MW-04	VC Mar/Apr	0.35 ug/l
	Arsenic Oct/Nov	0.012 / 0.017 mg/l
MW-05	Arsenic Mar/Apr	0.0061 / (<MTCA) mg/l
	Arsenic Oct/Nov	0.014 / 0.015 mg/l
	VC Mar/Apr	1.5 ug/l
MW-06	VC Mar/Apr	0.27 ug/l
	Arsenic Oct/Nov	0.0065 / 0.0074 mg/l
MW-07	VC Mar/Apr	3.5 ug/l
MW-08	Arsenic Oct/Nov	0.0062 / 0.0058 mg/l
	VC Mar/Apr	0.8 ug/l
MW-09	Arsenic Oct/Nov	0.0093 / 0.0097 mg/l
	VC Mar/Apr	0.8 ug/l
MW-10	Arsenic Oct/Nov	(<MTCA) / 0.0059 mg/l
	Arsenic Oct/Nov	0.016 / 0.017 mg/l
MW-11	Arsenic Oct/Nov	0.0064 / 0.0093 mg/l
	Arsenic Oct/Nov	0.063 / 0.062 mg/l
MW-12	Arsenic Oct/Nov	(<MTCA) / 0.0056 mg/l
	Arsenic Oct/Nov	0.012 / 0.013 mg/l
MW-13	Arsenic Oct/Nov	0.012 / 0.013 mg/l
	Arsenic Oct/Nov	0.012 / 0.013 mg/l

- Explanation**
- Approximate Property Boundary
  - Arsenic at concentration >MTCA Method A (0.005 mg/L)
  - TCE at concentration >MTCA Method A (5 mg/L)
  - VC at concentration >MTCA Method A (0.2 mg/L)
  - Chemicals of Concern not present at concentrations greater than CULs

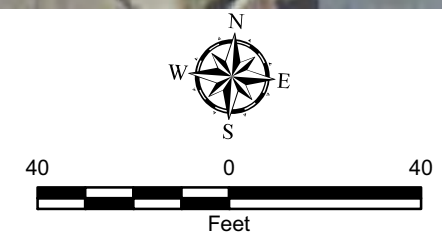
**Note:** This figure presents the results for groundwater samples collected during both the March 2008 and October/November 2008 sampling events.

**Notes:**

- The locations of all features shown are approximate.
- This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

**Data Sources:** Approximate Property Boundary from Thurston County parcels (revised by GeoEngineers). Aerial photograph (2003) from Thurston County Data Center. Data Frame Rotated 356.

**Projection:** NAD\_1983\_StatePlane\_Washington\_South\_FIPS\_4602\_Feet  
**Datum:** D\_North\_American\_1983



**Chemicals of Concern in Groundwater**

318 State Avenue NE  
Olympia, Washington

**Figure 9**

***APPENDIX A***

***EXHIBIT A OF TASK ORDER 2: SCOPE OF SERVICES***

---

## **EXHIBIT A SCOPE OF SERVICES**

### **INTRODUCTION AND BACKGROUND**

The scope of services presented in Task Order (TO) No. 2 is for a supplemental site characterization to be completed at the property located at 318 State Avenue SE in Olympia, Washington (project area). The purpose of this TO is to complete a supplemental site characterization to 1) fill data gaps necessary to further evaluate the extent of impacted soil and groundwater, 2) evaluate the lateral and vertical extent of solvent contaminated soil and groundwater along Adams Street NE, which is located east of the property for future remedial excavation planning purposes and 3) prepare a Supplemental Site Characterization report and Ecology's Voluntary Cleanup Program (VCP) application documents. The potential sources of contamination are likely associated with former activities conducted at the property since the late 1800s. These historic activities included metal forging, automotive service and repair, and a Washington State Department of Transportation (WSDOT) materials testing laboratory where volatile organic compounds (VOCs) were used such as perchloroethylene (PCE) and trichloroethylene (TCE). The natural breakdown products of these solvents are cis-1,2-dichloroethylene (DCE) and vinyl chloride, which are both present in groundwater at the project area.

### **SCOPE OF SERVICES**

Our specific scope of services is based on our understanding of environmental conditions at the project area, the City's goals for remediation and redevelopment, and the recommendations from a consultation meeting with the City of Olympia (City), GeoEngineers, and the Washington State Department of Ecology (Ecology) on August 13, 2008. The specific scopes of service are presented below:

#### **SUPPLEMENTAL SITE CHARACTERIZATION**

1. Updating the existing Health and Safety Plan (HASP) (prepared as part of TO 1, dated March 24, 2008) for use by GeoEngineers' personnel during the field activities.
2. Coordinating and planning right-of-way permit with the City. This will include a traffic control plan that we will submit to the City.
3. Contacting the public utility locating service to locate utilities within City rights-of-way at least 72 hours prior to subsurface explorations. We will also subcontract a private locating service to locate utilities that may be present within the bounds of the property. GeoEngineers will review the underground utilities that are marked in the exploration areas by public and private utility locating services prior to completing subsurface explorations. Boring locations may be relocated if subsurface utilities are noted within the area of the initially proposed boring location.
4. Observing the installation of 10 subsurface soil borings (seven will be completed as monitoring wells; see Scope Item 5), beginning on October 30, 2008. The borings will be completed using direct-push and hollow-stem auger (HSA) drilling techniques to depths of approximately 10 feet below ground surface (bgs) or until a confining stratigraphic layer is encountered (i.e., silt or clay). Previous boring logs at the property indicate that such layers will likely be encountered at around 10 feet bgs. The number and location of the borings is based on our review of existing information. Logistics and other coordinating factors, including scheduling the drilling company, will be managed by GeoEngineers.

5. Collecting soil samples from the 10 borings at 2.5-foot-depth intervals (approximately 40 samples). Each sample will be field screened using visual, water sheen and headspace vapor (using a photoionization detector [PID]) screening methods. Soil cuttings and decontamination water will be contained in steel drums and stored at the property in a secure location designated by the City to await off-site transport and disposal. The drums will be labeled according to standard GeoEngineers practice.
6. Observing the installation of groundwater monitoring wells in seven of the 10 borings (MW-10 through MW-16). The wells will be installed to approximately 10 feet bgs and constructed using 2-inch-diameter PVC pipe, the bottom of which will be screened with 10- or 20-slot pre-packed slotted well screen. Flush mount monuments and locking well caps will be used at each well location for routine access to the monitoring wells for observation and sampling. The wells will be completed in accordance with the Ecology “Minimum Standards for Construction and Maintenance of Wells [173-160 WAC]”.

The new monitoring wells will become part of a larger groundwater monitoring well network that presently consists of nine existing wells (MW-01 through MW-09). The existing wells were installed in March 2008 as part of TO 1 of the on-call contract between the City and GeoEngineers, dated January 15, 2008.

7. Developing and purging the seven newly installed monitoring wells. Groundwater samples and depth to water measurements will be obtained from the monitoring well network (MW-01 through MW-16).
8. Having the vertical elevation of the top of each new well casing surveyed by a City licensed surveyor. Survey measurements will be obtained from the northern rim of the PVC well casings. Access to the property for the surveyors will be coordinated and facilitated with City personnel, as necessary. Logistics and other coordinating factors will be managed by GeoEngineers. Survey data will be provided to GeoEngineers who will use the data for groundwater elevation data and assist in evaluating groundwater flow direction and gradient.
9. Submitting up to 20 soil samples to a chemical analytical laboratory for chemical analysis that will include the following: total metals (arsenic, lead and mercury using Environmental Protection Agency (EPA) Method 6000/7000 Series), VOCs (using EPA Method 8260B), semivolatile organic compounds (SVOCs, using EPA Method 8270C) and carcinogenic polycyclic aromatic hydrocarbons (cPAHs, using EPA Method 8270C-SIM). Logistics and other coordinating factors will be managed by GeoEngineers.
10. Submitting 19 groundwater samples (one from each of the nine existing wells, the seven new wells and the three direct-push borings) to a chemical analytical laboratory for chemical analysis that will include the following: total and dissolved metals (arsenic and lead using EPA Method 6000/7000 Series), VOCs (using EPA Method 8260B), SVOCs (using EPA Method 8270C) and cPAHs (using EPA Method 8270C-SIM). Logistics and other coordinating factors will be managed by GeoEngineers.
11. Coordinating logistics related to disposal of drill cuttings, well development and purge water, and similar investigation-derived waste (IDW) from previous and current investigations.
12. Using database and GIS technologies to manage chemical analytical data from this investigation and provide interpretive site maps. The data will also be formatted by GeoEngineers for upload to Ecology’s EIMS database system, as required by Ecology.
13. Evaluating the chemical analytical results relative to the Ecology’s Model Toxics Control Act (MTCA) cleanup levels.

14. Preparing a Supplemental Site Characterization Report (as a supplement to existing Phase 2 ESA reports) documenting the findings of the study and providing recommendations for subsequent steps in the remedial process for the project area.

15. Completing and coordinating the submittal of Ecology's VCP application documents.

Please note that the remedy selection, cleanup action plan (CAP) and remedial action cost estimates will be address in a future TO. We recommend that these items be completed after the City has the opportunity to review the results of this study and make decisions relative to an appropriate cleanup remedy for the property that meets the City's long-term goals and objectives.

### SCHEDULE

We are prepared to begin work immediately upon your authorization to proceed. We can modify our schedule to meet your needs. Scheduled tasks for this TO, as requested and prepared by the City, are as follows:

Estimated Timeframe	Description
October 2008	Additional sampling and groundwater monitoring well installation
November 2008	Prepare Report/Analysis
December 2008	Voluntary Clean-up Program (VCP) Application Submittal to Ecology along with report.  Note: it is common for Ecology to take up to 90 days in reviewing the VCP application submittal. As indicated before, a CAP can be completed during this period under a separate TO.

**APPENDIX B**  
**FORMER ON-SITE ARTESIAN WELL ABANDONMENT**  
**LOG**

---

*SWP/le*

FILED  
2/29/08

Swanson Drilling Company

February 29, 2008

Department of Ecology, SW Regional Office  
Attn: Mr. Bill Lumm, Well Construction Coordinator  
P.O. Box 47775  
Olympia, WA 98504-7775

Subject: Well Decommissioning Variance Request  
318 East State Street, Olympia, WA 98501

Dr. Mr. Lumm:

This letter is to request a variance to leave existing casing in place as part of the decommissioning process. The existing well is described as follows:

5" threaded steel casing

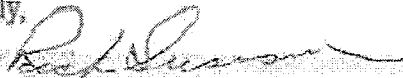
Depth: 53 feet

Flowing artesian measured a 4 g.p.m., with approximately 2 pounds pressure  
(Flow did not appear to change with high/low tide)

The proposed method of decommissioning is to leave the casing in place, compact  $\frac{3}{4}$  bentonite chip in the bottom of the casing, then bail existing water out of the casing. Monitor to watch for any cascading water. Then proceed to fill with  $\frac{3}{4}$  chip bentonite (and hydrate) to within 3 feet of the surface. Cut, and remove casing 3 feet below ground level.

Please do not hesitate to call if you have any questions or need further information.

Sincerely,



Rick Swanson  
Owner

Cc: WSDOT





STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

March 13, 2008

**CERTIFIED MAIL**  
7006 3450 0001 6754 2530

Mr. Rick Swanson  
Swanson Drilling Company  
3342 Libby Rd NE  
Olympia, WA 98506

RE: Variance request to Chapter 173-160 Washington Administrative Code (WAC) for a water well at 318 NE State Street, Thurston County, Washington (Section 14, Township 18 N, Range 02 W).  
Notice of Intent A084124.

Dear Mr. Swanson:

This letter is in response to your written request for a variance to the *Minimum Standards for the Construction and Maintenance of Wells*, Chapter 173-160 WAC (Washington Administrative Code).

Specifically, your request is decommission a flowing artesian well by filling with bentonite chips. This method is required because of the threaded and coupled casing installed in this particular well. Pulling the casing would most likely break the casing and could cause flow outside the casing to become uncontrollable. Perforating the casing is nearly impossible due to the age of the casing (brittle) and the couplings usually break the tools during decommissioning. Using chips will result in a higher percent solids of bentonite to be inside the well as opposed to a slurry. All flow will be stopped before the well will be considered decommissioned.

After an investigation, interview, and review of your proposal, a variance is hereby granted to WAC 173-160-381 (4). Ecology will allow the proposed method to be used in the decommissioning of this well. This variance is granted under the following conditions:

1. All well decommissioning work shall be performed by a licensed driller as set forth by WAC 173-162.
2. The driller must submit a *Water Well Report* describing the decommissioning to Ecology (Southwest Regional office) within 30 days after completion of the well. Attach a copy of this variance to the well report.
3. With the exception of the provisions set forth (above) in this variance, all state and local (Thurston County) requirements shall apply.

You have a right to appeal this decision. To appeal this you must:

- File your appeal with the Pollution Control Hearings Board within 30 days of the "date of receipt" of this document. Filing means actual receipt by the Board during regular office hours.

- Serve your appeal on the Department of Ecology within 30 days of the "date of receipt" of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). "Date of receipt" is defined at RCW 43.21B.001(2).

Be sure to do the following:

- Include a copy of this document that you are appealing with your *Notice of Appeal*.
- Serve and file your appeal in paper form; electronic copies are not accepted.

**1. To file your appeal with the Pollution Control Hearings Board**

Mail appeal to:

OR Deliver your appeal in person to:

The Pollution Control Hearings Board  
PO Box 40903  
Olympia WA 98504-0903

The Pollution Control Hearings Board  
4224 - 6th Ave SE Rowe Stx. Bldg 2  
Lacey WA 98503

**2. To serve your appeal on the Department of Ecology**

Mail appeal to:

OR Deliver your appeal in person to:

The Department of Ecology  
Appeals Coordinator  
P.O. Box 47608  
Olympia WA 98504-7608

The Department of Ecology  
Appeals Coordinator  
300 Desmond Dr SE  
Lacey WA 98503

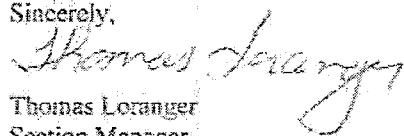
**3. And send a copy of your appeal to:**

William E. Lum, II  
Department of Ecology  
Southwest Regional Office  
PO Box 47775  
Olympia WA 98504-7775

For additional information visit the Environmental Hearings Office Website: <http://www.eho.wa.gov>.  
To find laws and agency rules visit the Washington State Legislature Website:  
<http://www1.leg.wa.gov/CodeReviser>.

If you have any questions, please contact Ecology at (360) 407-6300.

Sincerely,



Thomas Loranger  
Section Manager  
Water Resources Program

cc: Heather Saunders, Thurston County Health Department

TL:BL:th

Construction/Decommission ("x" in circle)  
 Construction  
 Decommission ORIGINAL INSTALLATION Notice  
 of Intent Number \_\_\_\_\_

PROPOSED USE:  Domestic  Industrial  Municipal  DeWater  Irrigation  Test Well  Other

TYPE OF WORK: Other's number of well (if more than one)  
 New well  Reconditioned  Attached  Dug  Bored  Driven  
 Deepened  Lined  Cable  Rotary  Toned

DIMENSIONS: Diameter of well \_\_\_\_\_ inches drilled \_\_\_\_\_ ft.  
 Depth of completed well \_\_\_\_\_ ft.

CONSTRUCTION DETAILS  
 Casing:  Welded \_\_\_\_\_ Diam from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 Installed:  Lined installed \_\_\_\_\_ Diam from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 Threaded \_\_\_\_\_ Diam from \_\_\_\_\_ ft to \_\_\_\_\_ ft

Perforations:  Yes  No  
 Type of perforator used \_\_\_\_\_  
 SIZE of peeph \_\_\_\_\_ in. by \_\_\_\_\_ in. and no. of ports from \_\_\_\_\_ ft to \_\_\_\_\_ ft

Screens:  Yes  No  S-Pac Location \_\_\_\_\_  
 Manufacturer's Name \_\_\_\_\_

Type \_\_\_\_\_ Model No. \_\_\_\_\_  
 Churn Slot size \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 Down Slot size \_\_\_\_\_ ft to \_\_\_\_\_ ft

Gravel/Filter packed:  Yes  No Size of gravel/sand \_\_\_\_\_  
 Materials placed from \_\_\_\_\_ ft to \_\_\_\_\_ ft

Surface Seal:  Yes  No To what depth? \_\_\_\_\_ ft  
 Material used in seal \_\_\_\_\_

Did any strata contain unusable water?  Yes  No  
 Type of water? \_\_\_\_\_ Depth of strata \_\_\_\_\_  
 Method of sealing strata off \_\_\_\_\_

PI (HP): Manufacturer's Name \_\_\_\_\_  
 Type \_\_\_\_\_ HP \_\_\_\_\_

WATER LEVELS: Land-surface elevation above mean sea level \_\_\_\_\_ ft  
 Static level \_\_\_\_\_ ft. below top of well Date \_\_\_\_\_  
 Artesian pressure 5.25 lbs per square inch Date 3-5-08  
 Artesian water is controlled by \_\_\_\_\_ (csg. valve, etc.)

WELL TESTS: Drawdown is amount water level is lowered below static level  
 Was a pump test made?  Yes  No If yes, by whom? \_\_\_\_\_  
 Yield \_\_\_\_\_ gal/min with \_\_\_\_\_ ft drawdown after \_\_\_\_\_ hrs  
 Yield \_\_\_\_\_ gal/min with \_\_\_\_\_ ft drawdown after \_\_\_\_\_ hrs  
 Yield \_\_\_\_\_ gal/min with \_\_\_\_\_ ft drawdown after \_\_\_\_\_ hrs  
 Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test \_\_\_\_\_  
 Bailor test \_\_\_\_\_ gal/min with \_\_\_\_\_ ft drawdown after \_\_\_\_\_ hrs  
 Arrest \_\_\_\_\_ gal/min with stem set at \_\_\_\_\_ ft for \_\_\_\_\_ hrs  
 Artesian flow \_\_\_\_\_ g.p.m. Date \_\_\_\_\_  
 Temperature of water \_\_\_\_\_ Was a chemical analysis made?  Yes  No

Water Right Permit No. \_\_\_\_\_  
 Property Owner Name W.S. D. ...  
 Well Street Address 218 NE ...  
 City Olympia County Wash.  
 Location 1/4-1/4 1/4 Sec 1/4 Twn 5 R 2 EWSM or WWSM  
 Lat/Long (s, t, r) \_\_\_\_\_ Lat Deg \_\_\_\_\_ Lat Min/Sec \_\_\_\_\_  
 Still REQUIRED) Long Deg \_\_\_\_\_ Long Min/Sec \_\_\_\_\_  
 Tax Parcel No. 78503200400

CONSTRUCTION OR DECOMMISSION PROCEDURE

Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information. (USE ADDITIONAL SHEETS IF NECESSARY.)

MATERIAL	FROM	TO
<u>Add 3/4 chip bentonite</u>		
<u>to 5' well casing</u>		
<u>Compact bentonite from</u>		
<u>52 x 5 ft casing</u>		
<u>Well 12 HR later</u>		
<u>To check for flow</u>		
<u>NO FLOW</u>		
<u>Well 24 HR later</u>		
<u>Still no flow</u>		
<u>CASING LEFT PLACED</u>		
<u>TO 12' above 3'</u>		

Start Date 3-5-08 Completed Date 3-6-08

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller  Engineer  Trainee Name (Print) Mark ...  
 Driller/Engineer/Trainee Signature \_\_\_\_\_  
 Driller or trainee License No. 1225

Drilling Company Washington Drilling  
 Address 3345 ... Rd NE  
 City, State, Zip Olympia WA 98506

IF TRAINEE:  
 Driller's Licensed No. \_\_\_\_\_  
 Driller's Signature \_\_\_\_\_

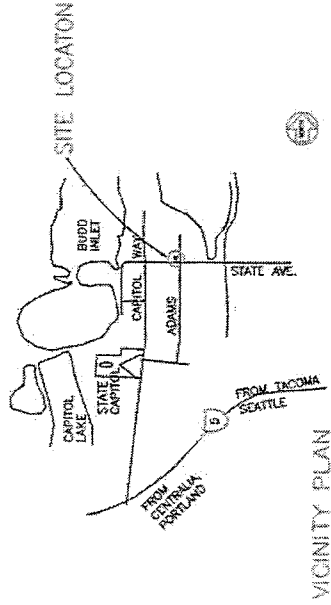
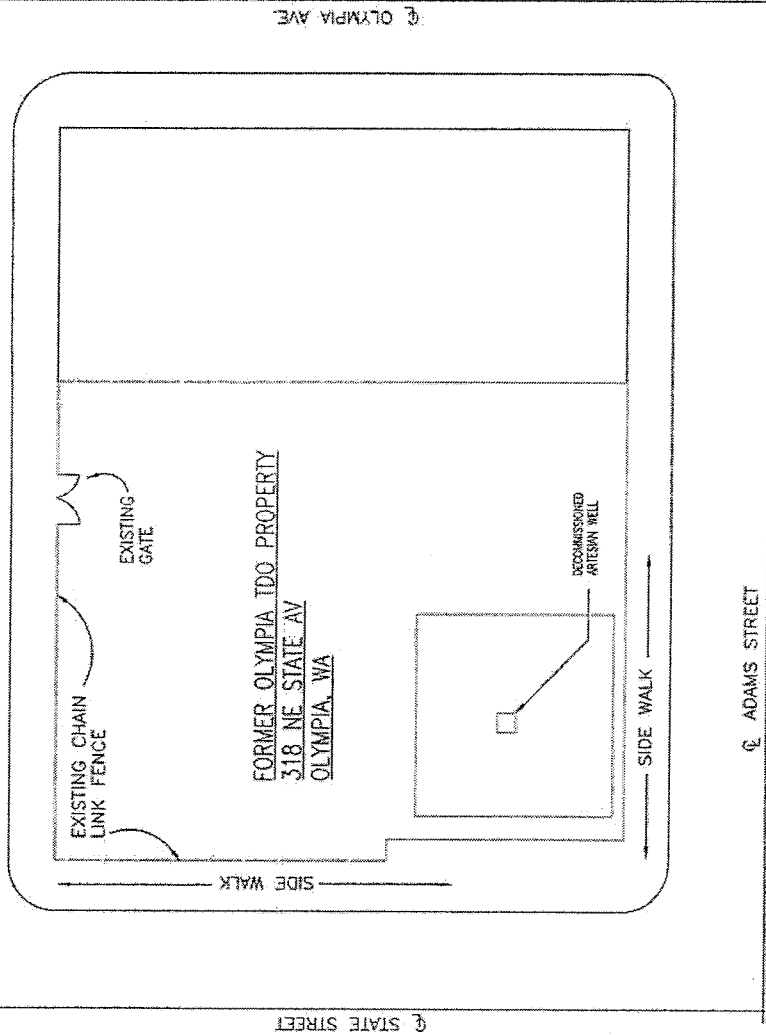
Contractor's  
 Registration No. WASDR09486 Date 3-10-08

Ecology is an Equal Opportunity Employer

# SITE PLAN

Scale: 1" = 10'

CL FRANKLIN ST.



### PROJECT DESCRIPTION

Phase 1: Decommission one (1) artesian well.

### LEGAL DESCRIPTION

Section 14 Township 18 Range 2W Plat  
SILVESTER S 1/2 LOTS 1 TO 4 AND 5 TO 8 BLK 32 & 1/2  
VAC ALLEY LOTS 2 & 3 CD1014

### SITE DATA

Owner: Washington State Department of Transportation  
318 NE State Ave., Olympia, WA 98501  
Project Address: 318 NE State Ave., Olympia, WA 98501  
Tax Assessor's Parcel: 78503200400  
Acres: 1.08  
Zoning: OB (Downtown Business)  
Use: 67 - SRV-GOVERNMENT

NO.	DATE	DESCRIPTION
1	08/15/2007	PRELIMINARY
2	08/15/2007	FINAL
3	08/15/2007	FINAL
4	08/15/2007	FINAL
5	08/15/2007	FINAL
6	08/15/2007	FINAL
7	08/15/2007	FINAL
8	08/15/2007	FINAL
9	08/15/2007	FINAL
10	08/15/2007	FINAL

Washington State  
Department of Transportation  
Appearance and Operations Office  
310 Maple Park Ave SE  
Olympia, WA 98504-7258

Washington State Department of Transportation  
Well Decommissioning Project  
Vicinity Map, Site Map  
SHEET 1 OF 3

***APPENDIX C***  
***SAMPLING AND ANALYSIS PLAN***

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**SAMPLING AND ANALYSIS PLAN  
SITE CHARACTERIZATION  
318 STATE AVENUE NE PROPERTY  
OLYMPIA, WASHINGTON**

**FEBRUARY 19, 2009**

**FOR  
CITY OF OLYMPIA**

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**SAMPLING AND ANALYSIS PLAN  
SITE CHARACTERIZATION  
318 STATE AVENUE NE PROPERTY  
OLYMPIA, WASHINGTON  
FOR  
CITY OF OLYMPIA**

## 1.0 INTRODUCTION

This Sampling and Analysis Plan (SAP) summarizes procedures for sample collection during site characterization activities at the 318 State Avenue NE Property (Property) in Olympia, Washington. This SAP was prepared in conjunction with the Site Health and Safety Plan (HASP).

The location of the Property is indicated on the Vicinity Map, Figure 1. The purpose of the site characterization is to identify and assess contamination at the Property related to historic Property activities. The work was accomplished by utilizing a drilling rig and groundwater monitoring wells to collect soil and groundwater samples.

The purpose of this SAP is to describe field activities, sampling equipment, sampling locations and procedures that were used during investigation activities at the Property. Four separate field investigations were performed by GeoEngineers in July 2006, September 2006, March/April 2008 and October/November 2008. This SAP also identifies quality assurance/quality control (QA/QC) procedures that were implemented during sampling activities and laboratory analyses.

Detailed descriptions of the field sampling procedures are provided in this document. Property conditions may have made it necessary to modify these procedures. Any variations or modifications that became necessary during Property activities were coordinated with the City of Olympia (City), the Washington State Department of Ecology (Ecology) and other involved parties, as appropriate. Variations or modifications implemented during the Property activities and the reason for the modification were documented as necessary.

## 2.0 PROPERTY DESCRIPTION

GeoEngineers performed a Phase I ESA in general conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Practice E 1527-05 of the Property located at 318 State Avenue NE in Olympia, Washington. The Washington State Department of Transportation (WSDOT) also performed a Phase I ESA (2005) to evaluate “the potential presence of environmental hazards that may adversely affect the sale of the property” but did not meet the requirements of current ASTM Standard E 1527-05 for Phase I ESAs. The general location of the Site is indicated on Figure 2. The identified potential sources of contamination are likely associated with former activities conducted at the property since the late 1800s. These historic activities included metal forging, automotive service and repair and a Washington State Department of Transportation (WSDOT) materials testing laboratory where volatile organic compounds (VOCs) were most likely used.

The surface of the Property is approximately 11 feet above national geodetic vertical datum (NGVD) as shown on the United States Geological Survey (USGS) 7.5 minute quadrangle map for Thurston County, Washington, dated 1949 and photo-revised in 1994. The surface of the Property is generally flat. The depth to groundwater in the Property monitoring wells ranges seasonally from about 4 to 6 feet below ground surface (bgs). In general, groundwater flow is toward the northeast. Subsurface soil mostly

consists of sand with silt (fill) overlaying occasional gravel and organic layers and near-shore silty sands and/or silt.

### 3.0 SAMPLING PROCEDURES

#### 3.1 PROPERTY CHARACTERIZATION

Property characterization completed by GeoEngineers consisted of four separate phases of drilling activities, which occurred in July 2006, September 2006, March/April 2008 and October/November 2008. These activities, as well as subsequent groundwater monitoring/sampling, are summarized in Table A below.

**Table A. Property Activities and Sampling Procedures**

Date	Activity	Soil Samples	Water Samples
July 2006	Drilled and sampled PP-1 through PP-8	1 per boring	1 per boring
September 2006	Drilled and sampled PP-9 through PP-17	2 per boring	1 per boring
April/March 2008	Installed, developed and sampled MW-1 through MW-9	2 per boring/well	1 per boring/well
October/November 2008	Drilled and sampled PP-18 through PP-20. Installed and developed MW-10 through MW-16. Sampled from MW-1 through MW-16	2 per boring/well	1 per well

A total of 36 soil borings, including the installation of 16 groundwater monitoring wells, were completed. One or two soil samples and a groundwater sample were collected from each direct push boring location. Groundwater monitoring/sampling also took place in March/April 2008 and October/November 2008. Test America Analytical Laboratories of Seattle and Tacoma, Washington, and Environmental Services Northwest (ESN) Laboratory of Olympia, Washington, were contracted to analyze the samples collected.

Representatives from GeoEngineers, Inc. (GeoEngineers) coordinated and observed drilling and groundwater monitoring well installation procedures. GeoEngineers maintained a detailed log of soil and groundwater conditions encountered at each boring location. A global positioning system (GPS) unit was used to record sample locations. Backup measurements of the GPS data gathered were collected and recorded on the boring logs or in a field note book. The backup measurements were based on known Property features used as references for mapping the location of each well. The soil encountered at each boring was classified in general accordance with ASTM D 2488. The field screening results, as described in Section 3.2, and soil classification were recorded on GeoEngineers boring logs.

##### 3.1.1 Soil Sampling Procedures

Each boring was advanced to depths between 10 to 12 feet on and around the Property. Continuous sampling was performed from each soil boring using 4-foot-long core sleeves and utilizing direct push technologies. Discrete soil samples were obtained from the direct push sampling sleeves using a sampling spoon. A portion of the sample was transferred immediately into a laboratory-supplied glass sample containers for chemical analysis where contamination was observed through field screening (Section 3.2 below). If contamination was not observed through field screening, sample containers were filled in the vicinity of anticipated impacts. The containers were filled according to the specifications of the contracted analytical laboratory, completely sealed and placed on ice within a cooler prior to and during shipment to the laboratory.

The sampling equipment was decontaminated prior to each sampling attempt using methods described in Section 5.2 below.

A total of 67 selected soil samples were collected from the borings and submitted to the lab as follows:

- Soil samples collected during the July 2006 and September 2006 investigation were submitted for analysis of gasoline-, diesel-, and oil-range hydrocarbons (NWTPH-Gx and -Dx), and Model Toxics Control Act (MTCA) metals (including mercury using Environmental Protection Agency (EPA) Method 6000/7000 Series). Additionally, selected samples were analyzed for VOCs (using EPA Method 8260B), semivolatile organic compounds (SVOCs, using EPA Method 8270C) and carcinogenic polycyclic aromatic hydrocarbons (cPAHs), using EPA Method 8270C-SIM.
- Soil samples collected during the March/April 2008 investigation were submitted for analysis of gasoline- and diesel-range hydrocarbons (NWTPH-Gx and -Dx), RCRA metals (using EPA Method 6000/7000 Series), VOCs (using EPA Method 8260B), SVOCs (using EPA Method 8270C), polychlorinated biphenyls (PCBs) by EPA 8082 and cPAHs (using EPA Method 8270C-SIM).
- Soil samples collected during the October/November 2008 investigation were submitted RCRA metals (arsenic, lead and mercury using EPA Method 6000/7000 Series), VOCs (using EPA Method 8260B), SVOCs (using EPA Method 8270C) and cPAHs (using EPA Method 8270C-SIM).

### **3.1.2 Groundwater Monitoring Well Installation and Sampling Procedures**

Groundwater monitoring wells were installed in 16 of the 36 borings. The groundwater monitoring well screen intervals were set based on visual, water sheen and headspace vapor (using a photoionization detector [PID]) field screening methods as described in Section 3.2. Each new groundwater monitoring well was developed by purging at least five well volumes prior to sampling activities. Water samples from the groundwater monitoring wells were collected by low flow techniques using dedicated self-venting submersible electric pumps (Whale Pump Brand or equivalent) with flexible vinyl tubing. Groundwater well development and sampling flow rates were set at 500 milliliters per minute (ml/min). Groundwater parameters were collected prior to sample collection, which included temperature, specific conductance, dissolved oxygen, pH, oxidation/reduction potential and turbidity.

Groundwater was transferred from the tubing directly to laboratory-supplied sampling containers; samples for metals analysis were field-filtered using a dedicated 0.45-micron filter. The sample containers were labeled in the field and stored on ice in a cooler prior to and during shipment to the laboratory.

Water samples were also collected from the direct-push soil borings using contractor supplied peristaltic pumps after a temporary well screen was installed. New sections of clean polyethylene and masterflex silicone tubing were used for every sample to prevent cross contamination.

A total of 45 selected water samples were collected from the borings and submitted to the lab as follows:

- Water samples collected during the July 2006 and September 2006 investigation were submitted for gasoline-, diesel-, and oil-range hydrocarbons (NWTPH-Gx and -Dx), MTCA metals (including mercury using EPA Method 6000/7000 Series), VOCs (using EPA Method 8260B), SVOCs (using EPA Method 8270C) and cPAHs (using EPA Method 8270C-SIM).

- Water samples collected during the March/April 2008 investigation were submitted gasoline-, diesel-, and oil-range hydrocarbons (NWTPH-Gx and -Dx), RCRA metals (using EPA Method 6000/7000 Series), VOCs using EPA Method 8260B), SVOCs (using EPA Method 8270C), PCBs (by EPA 8082) and cPAHs (using EPA Method 8270C-SIM).
- Water samples collected during the October/November 2008 investigation were submitted RCRA metals (arsenic, lead and mercury using EPA Method 6000/7000 Series), VOCs (using EPA Method 8260B), SVOCs (using EPA Method 8270C) and cPAHs (using EPA Method 8270C-SIM).

### 3.2 FIELD SCREENING

Soil samples obtained from the boring locations were field screened for indications of petroleum hydrocarbons. Field screening results were recorded on the boring logs. Field screening results were used as a general guideline to delineate areas of possible contamination and potential samples to be submitted to the lab. The following screening methods were used: 1) visual screening, 2) water sheen screening, and 3) headspace vapor screening. Visual screening and water sheen screening are qualitative methods; therefore, precision, accuracy and detection limits are not quantified for these methods. Headspace vapor screening is a semi-quantitative method; however, precision and accuracy will not be quantified for this method. Instrument accuracy and detection limits are described below. Field screening results are Property- and location-specific. The results vary with temperature, moisture content, soil type and type of contaminant. Field screening consisted of the following:

- **Visual Screening.** The soil was observed for indications of petroleum impacts, including unusual color, stains, and/or odor indicative of possible contamination.
- **Water Sheen Screening.** A portion of the soil sample was placed in a pan containing distilled water. The water surface was observed for signs of sheen. The following sheen classifications were used for this project:

No Sheen (NS)	No visible sheen on the water surface.
Slight Sheen (SS)	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly.
Moderate Sheen (MS)	Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on the water surface.
Heavy Sheen (HS)	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

- **Headspace Vapor Screening.** A portion of the soil sample was placed in a plastic bag. Ambient air was captured in the bag; the bag was sealed, and then shaken gently to expose the soil to the air trapped in the bag. The bag remained closed for approximately 5 minutes at ambient temperature before the headspace vapors were measured. Vapors present within the sample bag's headspace were measured by inserting the probe of a PID Rae Instruments Mini Rae Model 2000 in a small opening in the bag. The maximum measured value and the ambient air temperature were recorded on the field log for each sample.

The monitoring instrument was calibrated, as described in the following section. The PID measures the concentration of organic vapors ionizable by a 10.6 electron volt (eV) lamp in parts

per million (ppm). The PID was calibrated to 100 ppm isobutylene. The PID quantifies organic vapor concentrations in the range between 0.1 ppm and 2,000 ppm (isobutylene equivalent) with an accuracy of 1 ppm between 0 ppm and 100 ppm.

#### **4.0 FIELD EQUIPMENT CALIBRATION PROCEDURES**

Field equipment requiring calibration were calibrated to known standards in accordance with manufacturers' recommended schedules and procedures for each instrument. Calibration checks of the vapor measurement equipment were conducted daily and the instruments were recalibrated if required. If field equipment becomes inoperable, it was replaced with a properly calibrated instrument.

#### **5.0 INVESTIGATION DERIVED WASTE**

Investigation derived wastes was containerized in steel drums and disposed of in accordance with a waste disposal authorization with Emerald Services, Inc. (Emerald). Water generated during well development and sampling activities was also stored in the property within steel drums and was disposed as appropriate. All disposal activities were documented and tracked.

##### **5.1 SAMPLE HANDLING**

The following procedures were used at all times when collecting soil samples during the Property characterization activities.

- Neoprene, nitrile or vinyl gloves were worn when handling soil samples. New disposable gloves were used for each sample.
- All soil samples were collected with a stainless steel spoon. Sufficient sample volume was obtained for the laboratory to complete the method-specific quality control analyses on a laboratory-batch basis. Samples selected for chemical analysis were placed in laboratory-supplied containers.
- Sample labels were completed for each sample following the procedures provided in this section. Samples were stored in a cooler with ice until they were delivered to the analytical laboratory. Standard chain-of-custody procedures were followed for all samples collected. All samples were submitted to the laboratory within 72 hours of collection.

##### **5.2 DECONTAMINATION PROCEDURES**

###### **5.2.1 General**

The objectives of decontamination procedures are to minimize the potential for cross-contamination between exploration locations and between individual samples within a specific exploration, to prevent contamination from leaving the sampling site by way of equipment or personnel, and to prevent exposure of field personnel to contaminated materials. This section discusses general decontamination procedures.

###### **5.2.2 Personnel**

Personnel decontamination procedures depend on the level of protection specified for a given activity. The HASP identifies the appropriate level of protection for each type of fieldwork involved in this project, as well as appropriate decontamination procedures.

### **5.2.3 Sampling Equipment**

Decontamination procedures are designed to remove trace-level contaminants from sampling equipment to prevent cross-contamination of samples.

Sampling equipment, including stainless steel sampling tools and soil sampling equipment were decontaminated prior to and after each sampling attempt by washing with nonphosphate detergent solution (Alconox and potable tap water), rinsing with potable tap water and final rinsing with distilled water.

### **5.2.4 Direct Push Equipment**

A designated decontamination area was established for decontamination of the direct push equipment. Direct push equipment was decontaminated between each sampling attempt and after final use. The hollow stem auger equipment used to install the groundwater monitoring wells was also decontaminated immediately following each installation including final use. Water generated during decontamination activities was collected and stored in steel drums left on the Property pending appropriate disposal.

## **5.3 DOCUMENTATION OF FIELD ACTIVITIES**

### **5.3.1 General**

Daily field activities, including observations and field procedures, were recorded on appropriate forms. The original field forms will be maintained in GeoEngineers' office files. Copies of the completed forms will be maintained in a sequentially numbered field file for reference during field activities. Indelible ink was used, unless prohibited by weather. Photographic documentation of field activities was performed as appropriate.

### **5.3.2 Sample Designation and Labeling**

Each sample collected during Property characterization and groundwater monitoring activities was identified by a unique sample designation. The sample designation was included on the sample label. The designation also included the corresponding sample information on the appropriate boring log. The following designation system was used for this project.

Sample Designation Example:

Soil: Boring Number – Date (MMDDYY) – Depth

Water: Boring Number – Date (MMDDYY) – W

Sample labels were completed in indelible ink. Sample labels included the following information:

- GeoEngineers' job number
- Sample designation
- Date of sample collection (month/day/year)
- Time of sample collection (hours:minutes)
- Sample preservation, if appropriate

## 6.0 QUALITY ASSURANCE/QUALITY CONTROL

### 6.1 QUALITY ASSURANCE OBJECTIVES

The general quality assurance (QA) objectives for this project are to develop and implement procedures for obtaining and evaluating data of a specified quality that can be used to assess Property conditions and risks. Measurement data should have an appropriate degree of accuracy and reproducibility; samples collected should be representative of actual field conditions, and samples should be collected and analyzed using proper chain-of-custody procedures.

### 6.2 FIELD QA/QC PROCEDURES

Field QA/QC procedures followed included collecting duplicate samples and completing all appropriate sample documentation. Field QA samples represented at least 5 percent of the total number of samples obtained during this event.

#### 6.2.1 Duplicate Samples

Duplicate water samples were analyzed at a frequency of at least 5 percent of the samples analyzed. Duplicate samples are used to evaluate the precision and accuracy of overall sampling and analytical methods. Duplicate samples were prepared by collecting twice the normal quantity of a sample at a given location. The sample was split between two separate jars at the time of collection. The duplicate sample(s) were labeled with a unique sample number and delivered to the laboratory with the normal shipment of samples.

#### 6.2.2 Sample Preservation, Holding Times and Containers

Samples were kept in a cooler with ice before and during transport to the laboratory. The sampling, extraction and analysis dates were reviewed to confirm that extraction and analyses were completed within the recommended holding times, as specified by EPA protocol. Appropriate data qualifiers were noted if holding times were exceeded or containers do not contain the appropriate sample preservation. Table 1 summarizes sample preservation, holding times and containers for soil samples.

#### 6.2.3 Sample Shipment and Custody

Chain-of-custody procedures were used to track the possession of the samples from the time they were collected in the field through analysis and final disposition. Each time the samples changed hands, both the sender and receiver signed and dated the chain-of-custody record form. When the samples were sent to the laboratory, one copy of the form was retained for project files and the remaining copies were enclosed in a plastic bag and secured to the inside of the cooler prior to shipment of the samples.

### 6.3 LABORATORY QA/QC PROCEDURES

The data quality objectives were met in the laboratory by using established instrument calibration and sample handling procedures, analysis according to standard analytical methods and analysis of quality control samples. Laboratory quality control consisted of analysis of field sample duplicates and blanks, analysis of surrogate spikes, method blanks, duplicates, matrix spikes (MS) and matrix spike duplicates (MSD). All QA/QC data, including holding times, were reported.

#### 6.3.1 Equipment Calibration Procedures and Frequency

All instruments and equipment used by the laboratory were operated, calibrated and maintained according to manufacturer's guidelines and recommendations. Operation, calibration and maintenance were

performed by personnel who have been properly trained in these procedures. A routine schedule and record of instrument calibration and maintenance are kept on file at the laboratory.

### **6.3.2 Analytical Procedures**

Samples were analyzed according to analytical methods listed in Table 1. EPA standard analytical methods are specified in Test Methods for Evaluating Solid Waste-Physical/Chemical Methods, 3rd Edition, EPA-SW846, September 1986. Washington analytical methods for petroleum hydrocarbons are specified in the MTCA regulations, as outlined in the Washington Administrative Code (WAC) 173-340.

### **6.3.3 Laboratory QA/QC Samples**

Laboratory QC samples were analyzed at a frequency of 1 in 20 (5 percent) on a laboratory batch basis. Laboratory QC samples consisted of duplicates, method blanks, MS and MSD. In addition, each organic analysis included the addition of surrogate compounds to the sample for surrogate spike analysis.

### **6.3.4 Laboratory Deliverables**

The following information was provided in the laboratory reports submitted for this project.

- Transmittal letter, including a case narrative, information about the receipt of samples, the testing methodology performed, any deviations from the required procedures, any problems encountered in the analysis of the samples, any problems meeting the method holding times or laboratory control limits, whether all internal standard recovery values within the control limits and any corrective actions taken by the laboratory relative to the quality of the data contained in the report.
- Sample analytical results, including sampling date, date of sample analysis, dilution factors and test method identification and detection limits for undetected analytes. Results will be reported for all field samples, including field duplicates and blanks submitted for analysis.
- Method blank and field blank results, including reporting limits for undetected analytes and any positive results for contaminants.
- Surrogate recovery results and corresponding control limits for samples and method blanks.
- Matrix spike and matrix spike duplicate results, including whether relative percent differences and corresponding control limits are within acceptable limits.
- MS/MSD and/or surrogate and blank spike concentrations, percent recoveries, relative percent differences and corresponding control limits.
- Laboratory duplicate results, including whether relative percent differences and corresponding control limits are within acceptable limits.
- Sample chain-of-custody documentation, including the temperature recorded by the laboratory.

## **6.4 REVIEW OF FIELD AND LABORATORY QA/QC DATA**

The sample data, field and laboratory QA/QC results were evaluated for acceptability with respect to the data quality objectives (DQOs). Each group of samples was compared with the DQOs and evaluated using data validation guidelines contained in the following documents (as appropriate):



- EPA, 1988, *Laboratory Data Validation, Functional Guidelines for Evaluating Inorganics Analyses*, Hazardous Site Evaluation Division, U.S. Environmental Protection Agency, Washington, DC.
- EPA, 2000a, *Guidance for Data Quality Assessment, Practical Methods for Data Analysis*, EPA QA/G-9, EPA/600/R-96/084, U.S. Environmental Protection Agency, Office of Environmental Information, Washington, DC, July 2000.
- USEPA Contract Laboratory Program *National Functional Guidelines for Inorganic Data Review*, Publication 9240.1-05-01, EPA-540/R-94/013, PB94-963502, OSWER, USEPA, Washington, DC 20460, February 1994.

Data evaluation will include assessment of the criteria listed in Section 6.5.

## 6.5 PRECISION, ACCURACY AND COMPLETENESS

### 6.5.1 Precision

Precision is a measure of data variability. Variability can be attributed to sampling activities and/or chemical analysis. Relative percent difference (RPD) was used to assess the precision of the sampling and analytical method and is calculated as follows:

$$\text{RPD} = 100[(X_s - X_d)/(X_s + X_d)]/2$$

where

RPD = relative percent difference

X<sub>s</sub> = sample analytical result

X<sub>d</sub> = duplicate sample analytical result

The laboratory DQOs for precision are presented in Table 2.

### 6.5.2 Accuracy

Accuracy is a measure of the error between chemical analytical results and the true sample concentrations. Accuracy is a measure of the bias in a system and were expressed as the percent recovery of spiked samples. The accuracy was presented as percent recovery and was calculated as follows:

$$\text{PR} = 100(X_{ss} - X_s)/T$$

where

PR = percent recovery

X<sub>ss</sub> = spike sample analytical result

X<sub>s</sub> = sample analytical result

T = known spike concentration

The laboratory DQOs for accuracy are presented in Table 2.

### 6.5.3 Completeness

Completeness is evaluated to assess whether a sufficient amount of valid data is obtained. Completeness is described as the ratio of acceptable measurements to the total planned measurements. Completeness was calculated as follows:

$$C = \frac{\text{(Number of samples having acceptable data)}}{\text{(total number of samples analyzed)}} \times 100\%$$

where

$$C = \text{completeness}$$

The laboratory DQOs for completeness are presented in Table 2.

## 6.6 REPORTING, DOCUMENTATION, DATA REDUCTION AND CORRECTIVE ACTION

Upon receipt of each laboratory data package, data was evaluated against the criteria outlined in the previous sections. Any deviation from the established criteria was noted, and the data was qualified, as appropriate. A review of the analytical data QA/QC was performed. Data validation procedures for all samples included checking the following (when appropriate).

- Holding times
- Detection limits
- Laboratory blanks
- Laboratory matrix spikes
- Laboratory matrix spike duplicates
- Laboratory blank spikes
- Laboratory blank spike duplicates
- Surrogate recoveries

If significant quality assurance problems were encountered, appropriate corrective action as determined by GeoEngineers' project manager, GeoEngineers' associate/principle and/or the analytical laboratory were implemented as appropriate. The corrective actions taken are defensible and the corrected data were qualified.

## 7.0 REFERENCES

EPA. October 1988. *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final*. OSWER Directive 9355.3-01. EPA/540/G-89/004.

EPA. 2000a. *Guidance for Data Quality Assessment, Practical Methods for Data Analysis*, EPA QA/G-9, EPA/600/R-96/084, U.S. Environmental Protection Agency, Office of Environmental Information, Washington, DC. July 2000.

Model Toxics Control Act (MTCA) Cleanup Regulations, *Washington Administrative Code, Chapter 173-340*. Washington State Department of Ecology.

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**TABLE 1**  
**METHODS AND PROTOCOL FOR SAMPLE ANALYSIS**  
 318 STATE AVENUE NE  
 OLYMPIA, WASHINGTON

Parameters	Analysis Methods	Preservation	Holding Time	Sample Container	
				Soil	Groundwater
Petroleum Hydrocarbons	NWTPH-Gx and -Dx	Cool to 4° C	Extract before 14 Days	40 mL glass VOA vials w/ Teflon septums and Methanol preservative and 8 ounce glass jar	40 mL glass VOA vials w/ Teflon septums and Hydrochloric Acid preservative and preserved 500mL glass ambers w/ Hydrochloric Acid preservative
PCBs	EPA Method 8082	Cool to 4° C	Extract before 14 days for soil, 7 days for water	8-ounce glass jar	Unpreserved 500mL glass ambers
Metals	EPA Method 6000/7000 Series	Cool to 4° C	Extract before 180 Days	8-ounce glass jar	500 mL poly w/ Nitric Acid preservative, one field filtered for dissolved metals
VOCs	EPA Method 8260B	Cool to 4° C	Extract before 14 Days	40 mL unpreserved glass VOA vials w/ Teflon septums	40 mL glass VOA vials w/ Teflon septums and Hydrochloric Acid preservative
SVOCs	EPA Method 8270C	Cool to 4° C	Extract before 14 days for soil, 7 days for water	8-ounce glass jar	Unpreserved 500mL glass ambers
PAHs	EPA Method 8270C-SIM	Cool to 4° C	Extract before 14 days for soil, 7 days for water	8-ounce glass jar	Unpreserved 500mL glass ambers

## Notes:

VOCs = volatile organic compounds  
 SVOCs = semivolatile organic compounds  
 PAHs = polycyclic aromatic hydrocarbons  
 VOA = volatile organic analysis  
 mL = milliliters  
 EPA = U.S. Environmental Protection Agency  
 PCBs = polychlorinated biphenyls  
 SIM = Selected Ion Mode  
 °C = degrees centigrade

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TABLE 2  
ANALYTICAL DATA QUALITY OBJECTIVES  
318 STATE AVENUE NE  
OLYMPIA, WASHINGTON

Parameter	Method	Minimum Method Reporting Limit Goal (Soil)	Minimum Method Reporting Limit Goal (Water)	Precision (relative percent difference)	Accuracy (percent spike recovery)	Completeness (percent)
Petroleum Hydrocarbons	NWTPH-Gx and -Dx	30 mg/kg	500 µg/L	± 20 (± 35% for soils)	45 - 150	95
PCBs	EPA Method 8082	0.5 mg/kg	0.044 µg/L	± 20 (± 35% for soils)	45 - 150	95
Metals	EPA Method 6000/7000 Series	2 mg/kg	2 µg/L	± 20 (± 35% for soils)	45 - 150	95
VOCs	EPA Method 8260B	0.91 mg/kg	0.0046 µg/L	± 20 (± 35% for soils)	45 - 150	95
SVOCs	EPA Method 8270C	0.02 mg/kg	0.02 µg/L	± 20 (± 35% for soils)	45 - 150	95
PAHs	EPA Method 8270C SIM	0.02 mg/kg	0.002 µg/L	± 20 (± 35% for soils)	45 - 150	95

## Notes:

N/A = not applicable

mg/kg = milligrams per kilogram

µg/l = micrograms per liter

VOCs = volatile organic compounds

SVOCs = Semi-volatile organic compounds

PAHs = polycyclic aromatic hydrocarbons

SIM = Selected Ion Mode

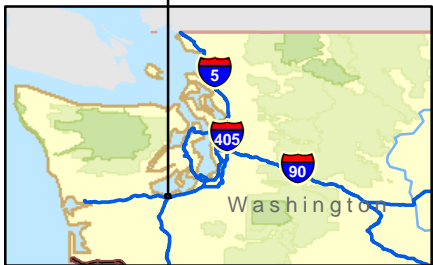
PCBs = polychlorinated biphenyls

EPA = U.S. Environmental Protection Agency

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Map Revised: February 18, 2009

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Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

Data Sources: 2008 Shaded Relief from ESRI, 2008 Topographic Maps from National Geographic Society  
 Projection: NAD\_1983\_StatePlane\_Washington\_North\_FIPS\_4601\_Feet  
 Datum: D\_North\_American\_1983



<b>Vicinity Map</b>	
318 State Avenue NE Olympia, Washington	
	<b>Figure 1</b>

Office: TAC

# DRAFT



### Explanation

-  Approximate Property Boundary
-  MW-01 GeoEngineers Monitoring Well Location and ID (March and October 2008)



### Monitoring Well Locations

318 State Avenue NE  
Olympia, Washington



Figure 2

Map Revised: February 18, 2009

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Office: TAC

- Notes:
1. The locations of all features shown are approximate.
  2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
  3. Cross section A-A' shown on Figure 6 (drawn by GeoEngineers, Inc.)

Data Sources: Approximate Property Boundary from Thurston County parcels (revised by GeoEngineers).  
Aerial photograph (2003) from Thurston County Data Center. Data Frame Rotated 356.  
Projection: NAD\_1983\_StatePlane\_Washington\_South\_FIPS\_4602\_Feet  
Datum: D\_North\_American\_1983

***APPENDIX D***  
***BORING LOGS AND WELL CONSTRUCTION DIAGRAMS***

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SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
		LIQUID LIMIT LESS THAN 50		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
		LIQUID LIMIT LESS THAN 50		OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
		LIQUID LIMIT GREATER THAN 50		CH	INORGANIC CLAYS OF HIGH PLASTICITY
		LIQUID LIMIT GREATER THAN 50		OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

**Sampler Symbol Descriptions**

- 2.4-inch I.D. split barrel
- Standard Penetration Test (SPT)
- Shelby tube
- Piston
- Direct-Push
- Bulk or grab

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS		TYPICAL DESCRIPTIONS
GRAPH	LETTER	
	CC	Cement Concrete
	AC	Asphalt Concrete
	CR	Crushed Rock/Quarry Spalls
	TS	Topsoil/Forest Duff/Sod



Measured groundwater level in exploration, well, or piezometer



Groundwater observed at time of exploration



Perched water observed at time of exploration



Measured free product in well or piezometer

**Graphic Log Contact**



Distinct contact between soil strata or geologic units



Approximate location of soil strata change within a geologic soil unit

**Material Description Contact**



Distinct contact between soil strata or geologic units



Approximate location of soil strata change within a geologic soil unit

**Laboratory / Field Tests**

- %F Percent fines
- AL Atterberg limits
- CA Chemical analysis
- CP Laboratory compaction test
- CS Consolidation test
- DS Direct shear
- HA Hydrometer analysis
- MC Moisture content
- MD Moisture content and dry density
- OC Organic content
- PM Permeability or hydraulic conductivity
- PP Pocket penetrometer
- SA Sieve analysis
- TX Triaxial compression
- UC Unconfined compression
- VS Vane shear

**Sheen Classification**

- NS No Visible Sheen
- SS Slight Sheen
- MS Moderate Sheen
- HS Heavy Sheen
- NT Not Tested

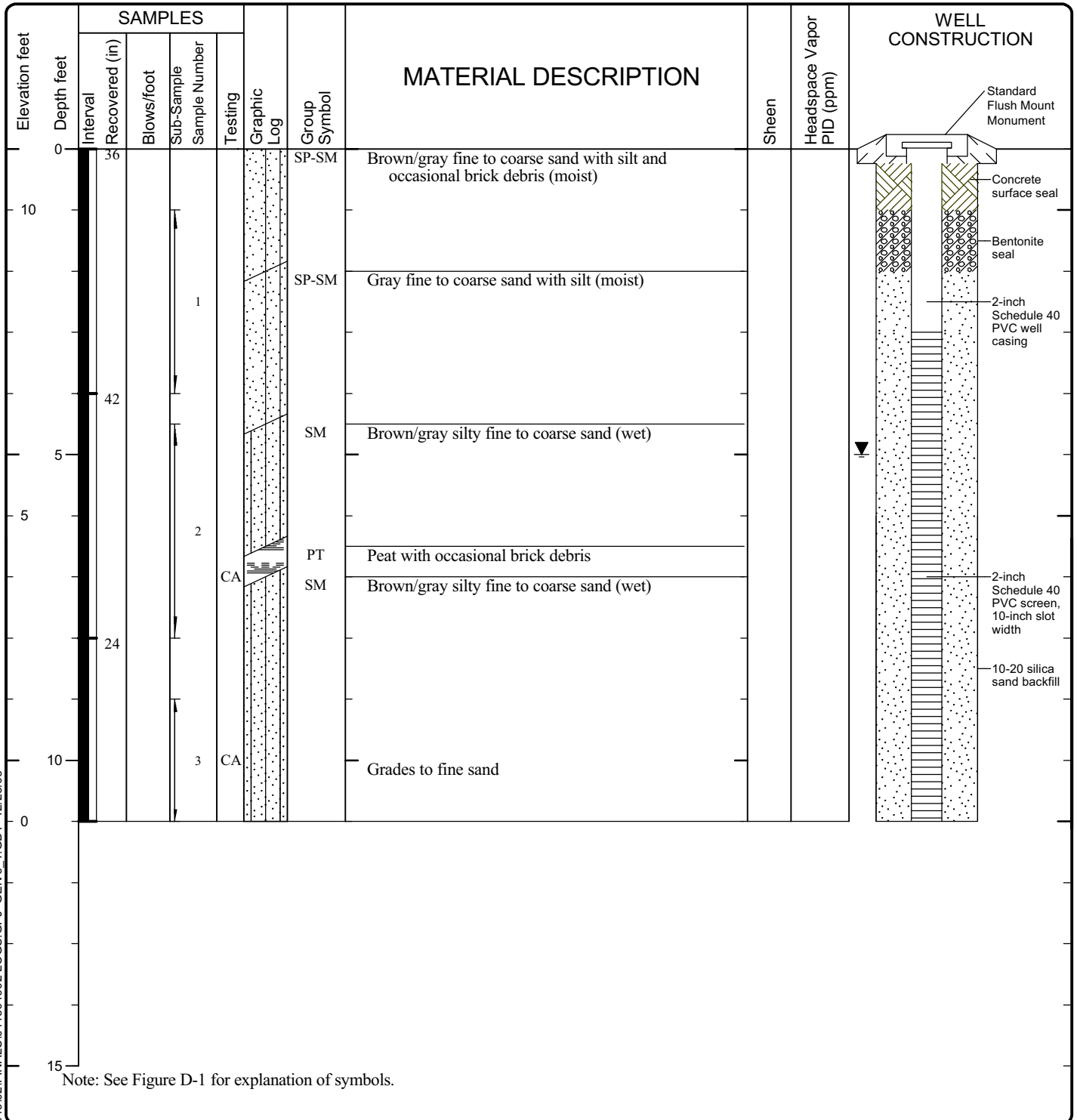
NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS



DRAFT

Date(s) Drilled	03/26/08	Logged By	JCD	Checked By	JMB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	6-1/4 ID	Hammer Data	Direct Push	Drilling Equipment	Power Probe 9630
Total Well Depth (ft)	11	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.89908 47.046072



V6 ENVWELL\_P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

**LOG OF MONITORING WELL MW-1**

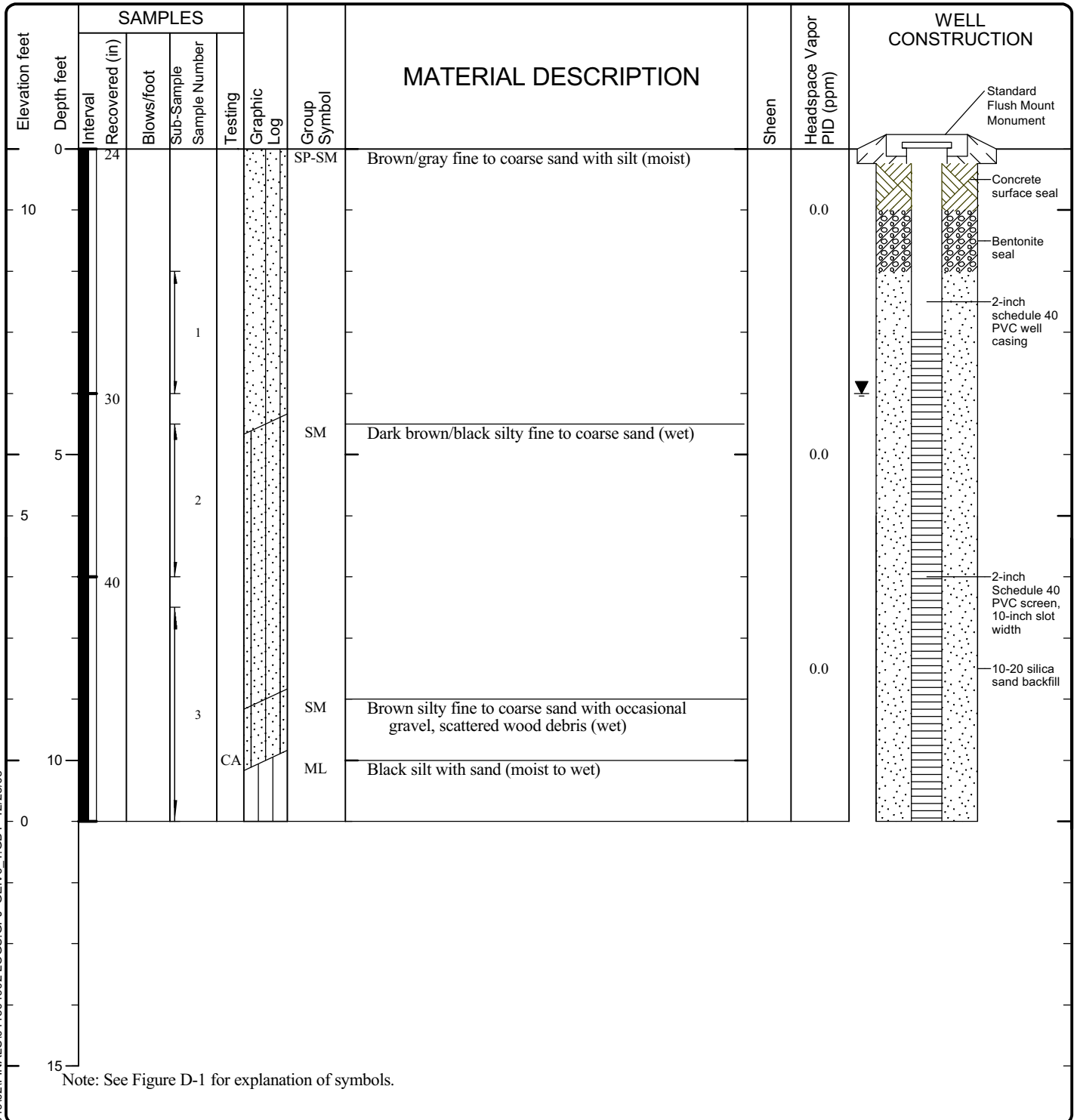


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-2  
Sheet 1 of 1

DRAFT

Date(s) Drilled	03/26/08	Logged By	JCD	Checked By	NB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	6-1/4 ID	Hammer Data	Direct Push	Drilling Equipment	Power Probe 9630
Total Well Depth (ft)	11	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	7
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898643 47.04622



V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

**LOG OF MONITORING WELL MW-2**



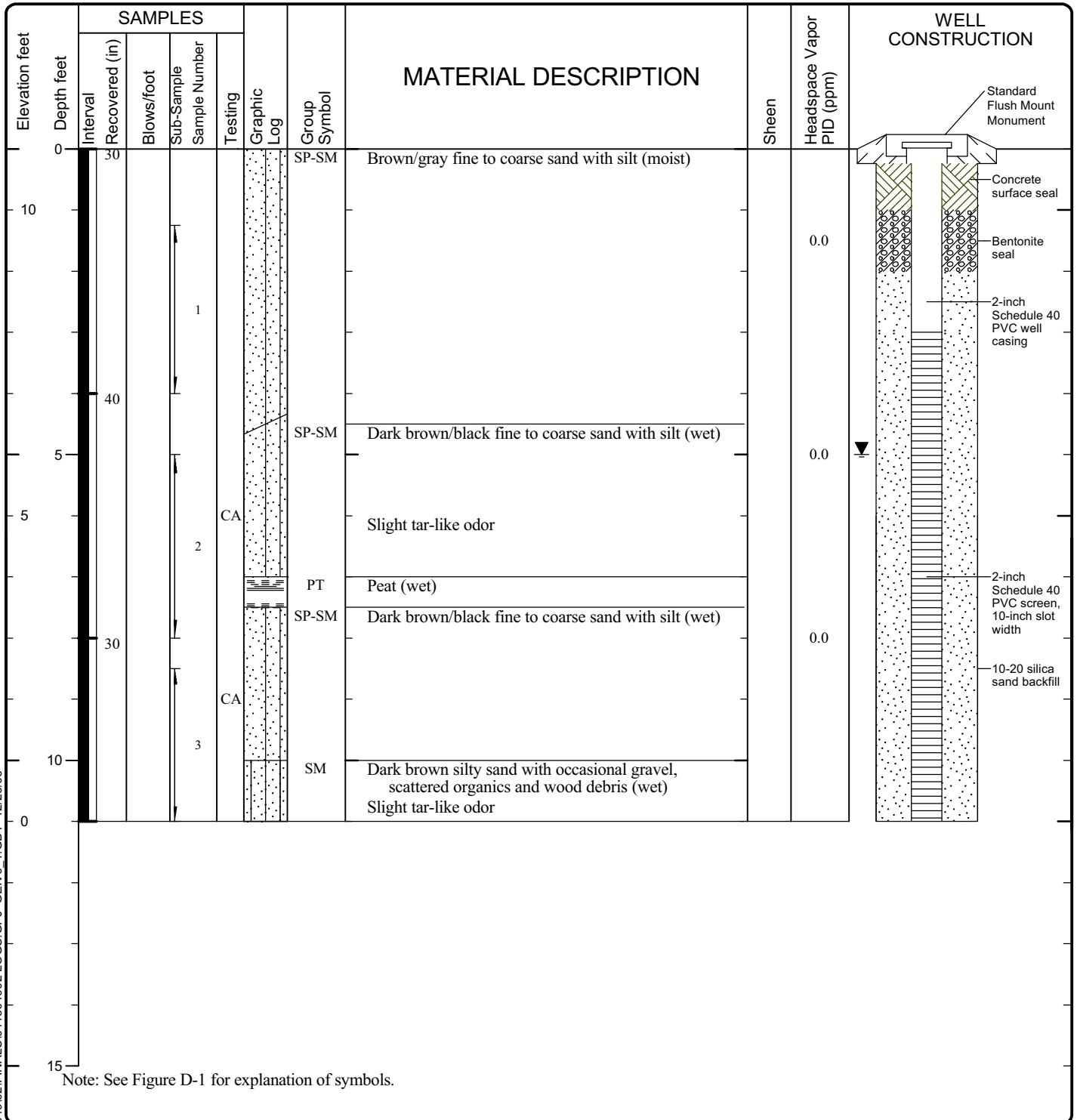
Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-3  
Sheet 1 of 1



DRAFT

Date(s) Drilled	03/26/08	Logged By	JCD	Checked By	NB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	6-1/4 ID	Hammer Data	Direct Push	Drilling Equipment	Power Probe 9630
Total Well Depth (ft)	11	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898574 47.046057



V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

LOG OF MONITORING WELL MW-4

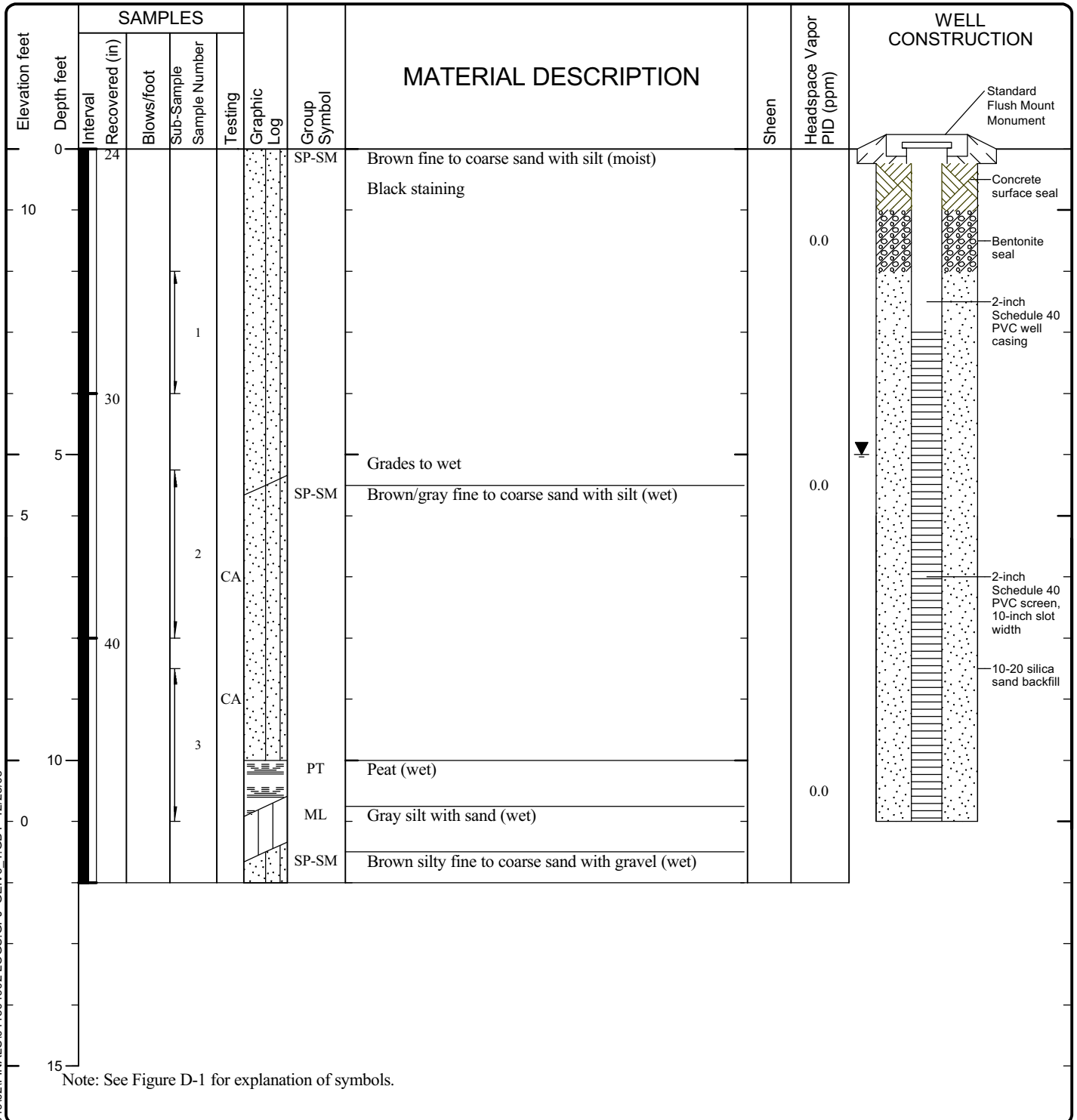


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-5  
Sheet 1 of 1

DRAFT

Date(s) Drilled	03/26/08	Logged By	JCD	Checked By	NB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	6-1/4 ID	Hammer Data	Direct Push	Drilling Equipment	Power Probe 9630
Total Well Depth (ft)	11	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898419 47.046177



V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

LOG OF MONITORING WELL MW-5

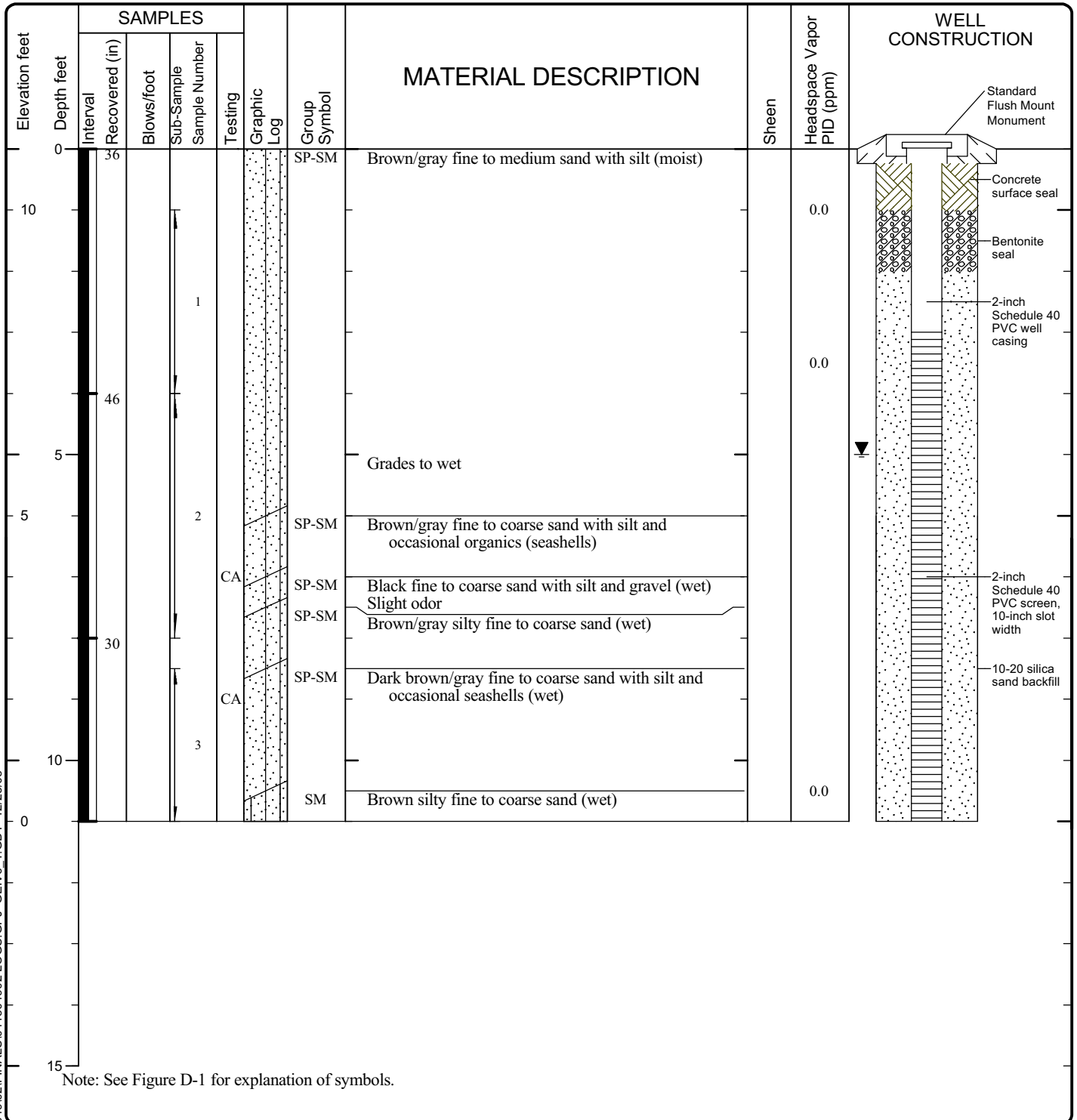


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-6  
Sheet 1 of 1

DRAFT

Date(s) Drilled	03/27/08	Logged By	JCD	Checked By	NB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	6-1/4 ID	Hammer Data	Direct Push	Drilling Equipment	Power Probe 9630
Total Well Depth (ft)	11	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898263 47.04609



V6 ENVWELL P:\00415049\02\FINALS\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

LOG OF MONITORING WELL MW-6

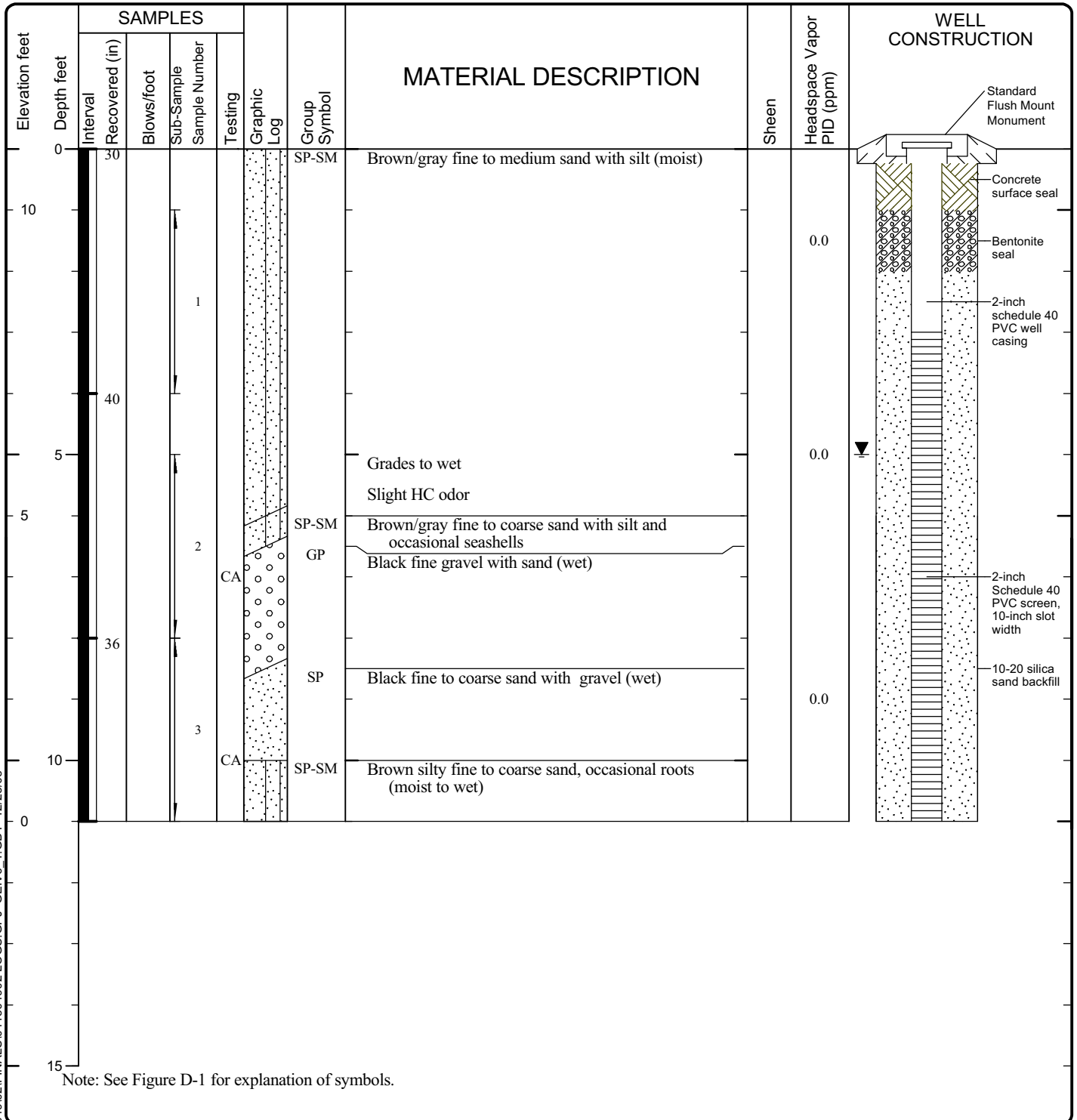


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-7  
Sheet 1 of 1

DRAFT

Date(s) Drilled	03/27/08	Logged By	JCD	Checked By	NB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	6-1/4 ID	Hammer Data	Direct Push	Drilling Equipment	Power Probe 9630
Total Well Depth (ft)	11	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898269 4.046293



V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

LOG OF MONITORING WELL MW-7

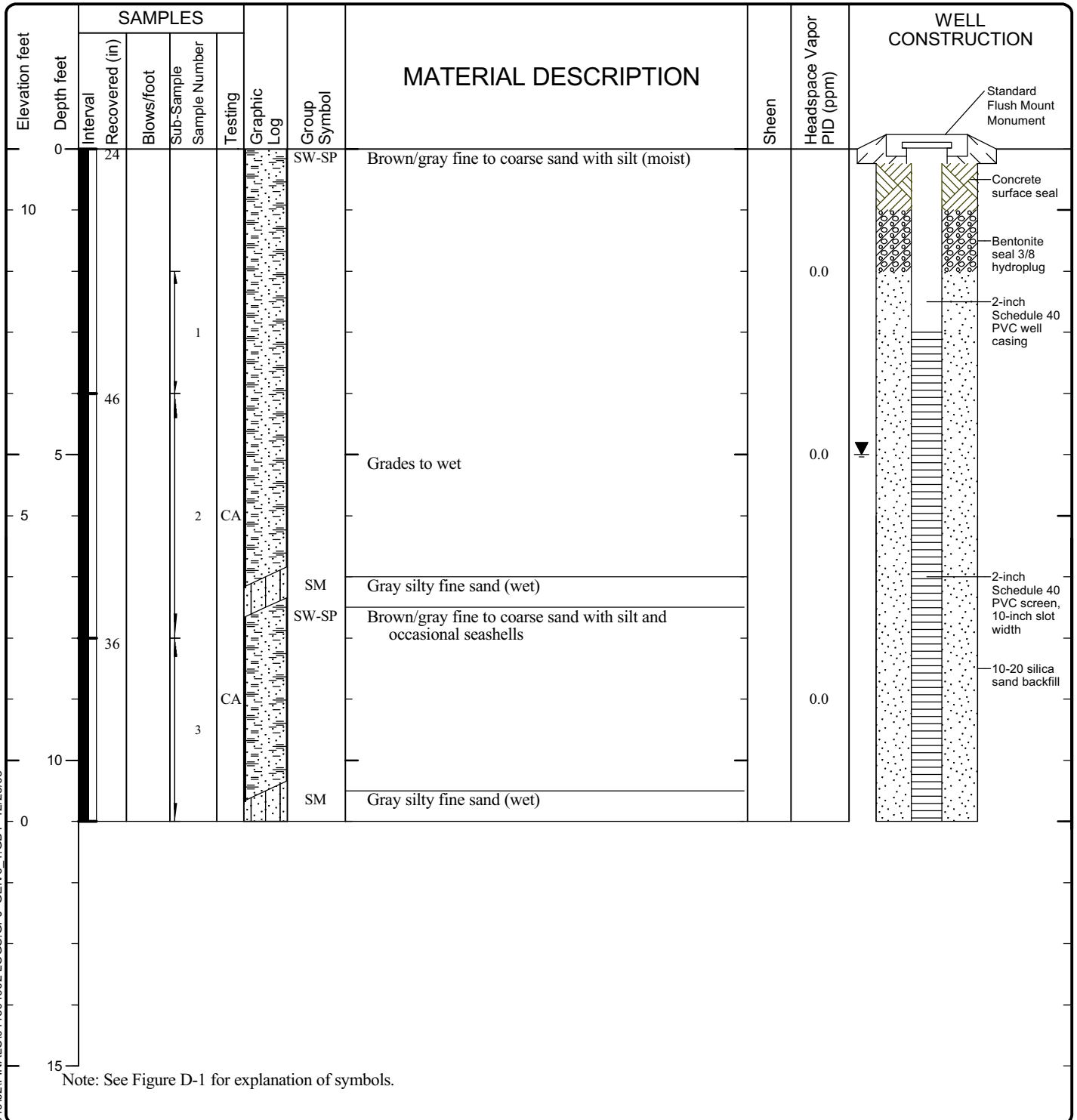


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-8  
Sheet 1 of 1

DRAFT

Date(s) Drilled	03/27/08	Logged By	JCD	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	6-1/4 ID	Hammer Data	Direct Push	Drilling Equipment	Power Probe 9630
Total Well Depth (ft)	11	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898302 47.046493



V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

**LOG OF MONITORING WELL MW-8**



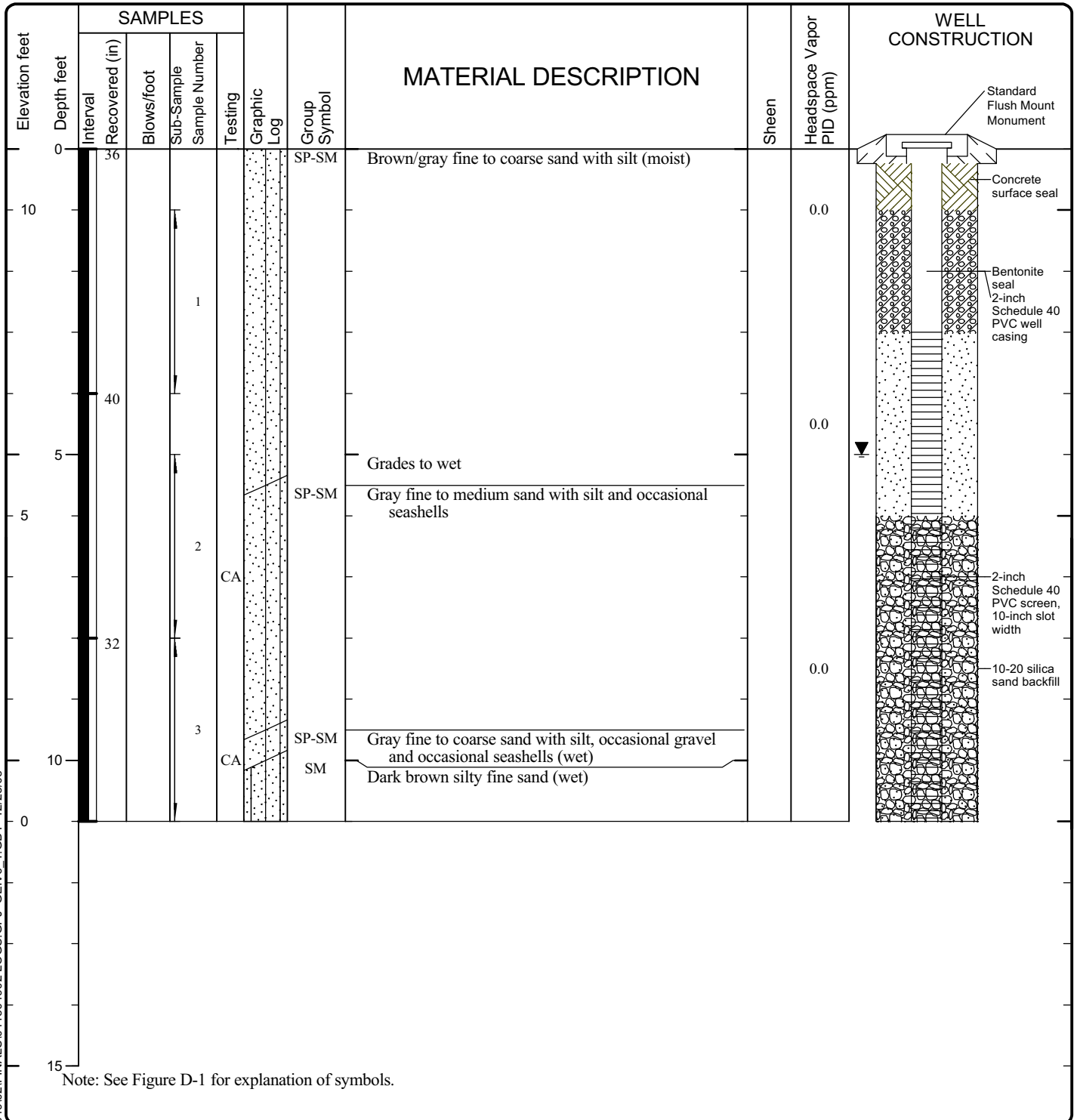
Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-9  
Sheet 1 of 1



DRAFT

Date(s) Drilled	03/27/08	Logged By	JCD	Checked By	MB/R
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	6-1/4 ID	Hammer Data	Direct Push	Drilling Equipment	Power Probe 9630
Total Well Depth (ft)	11	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898056 47.046307



**LOG OF MONITORING WELL MW-9**



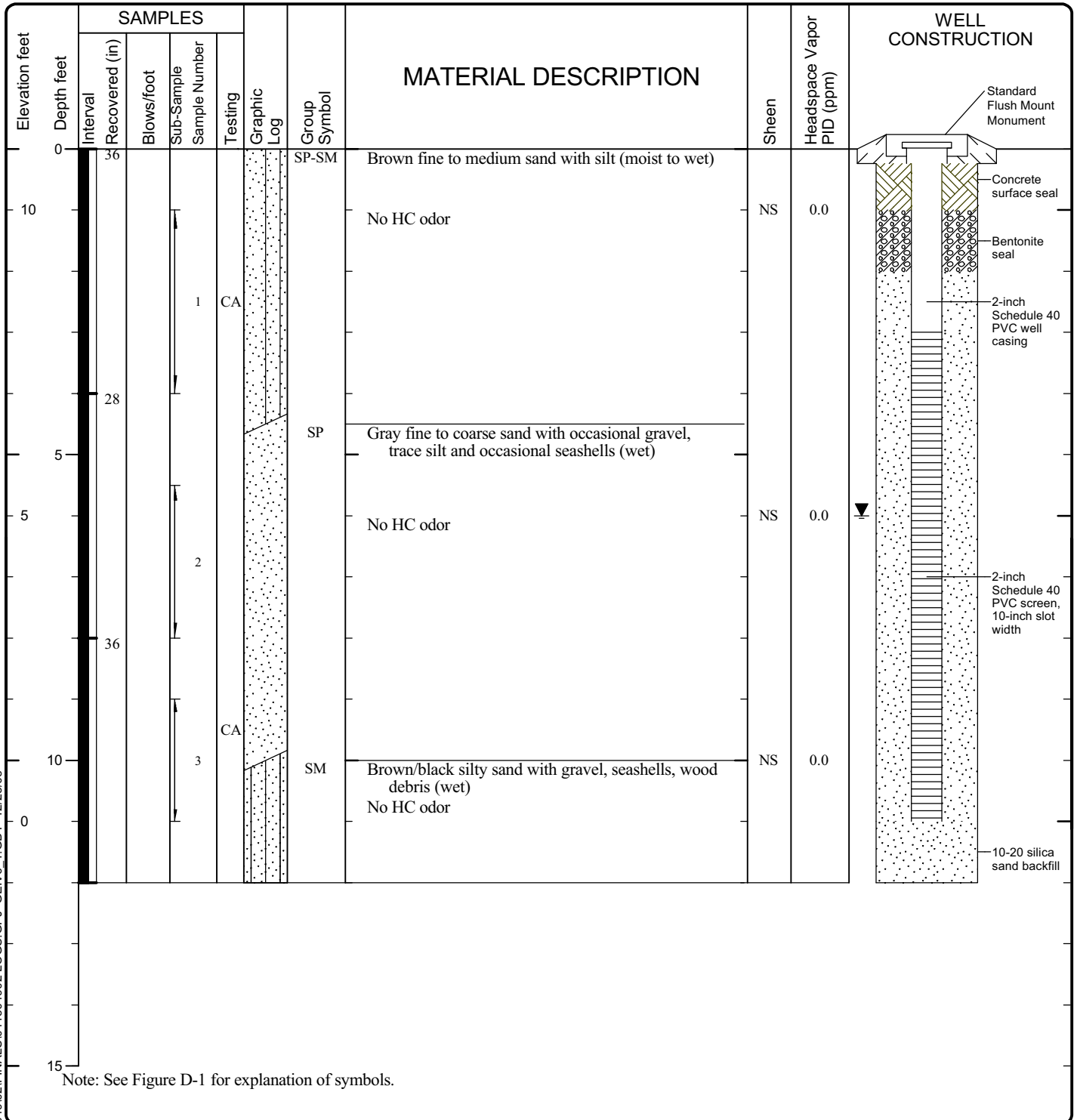
Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-10  
Sheet 1 of 1

V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

DRAFT

Date(s) Drilled	10/31/08	Logged By	JCD	Checked By	
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Power Probe
Total Well Depth (ft)	12	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	5
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898254 47.046608



V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

LOG OF MONITORING WELL MW-10

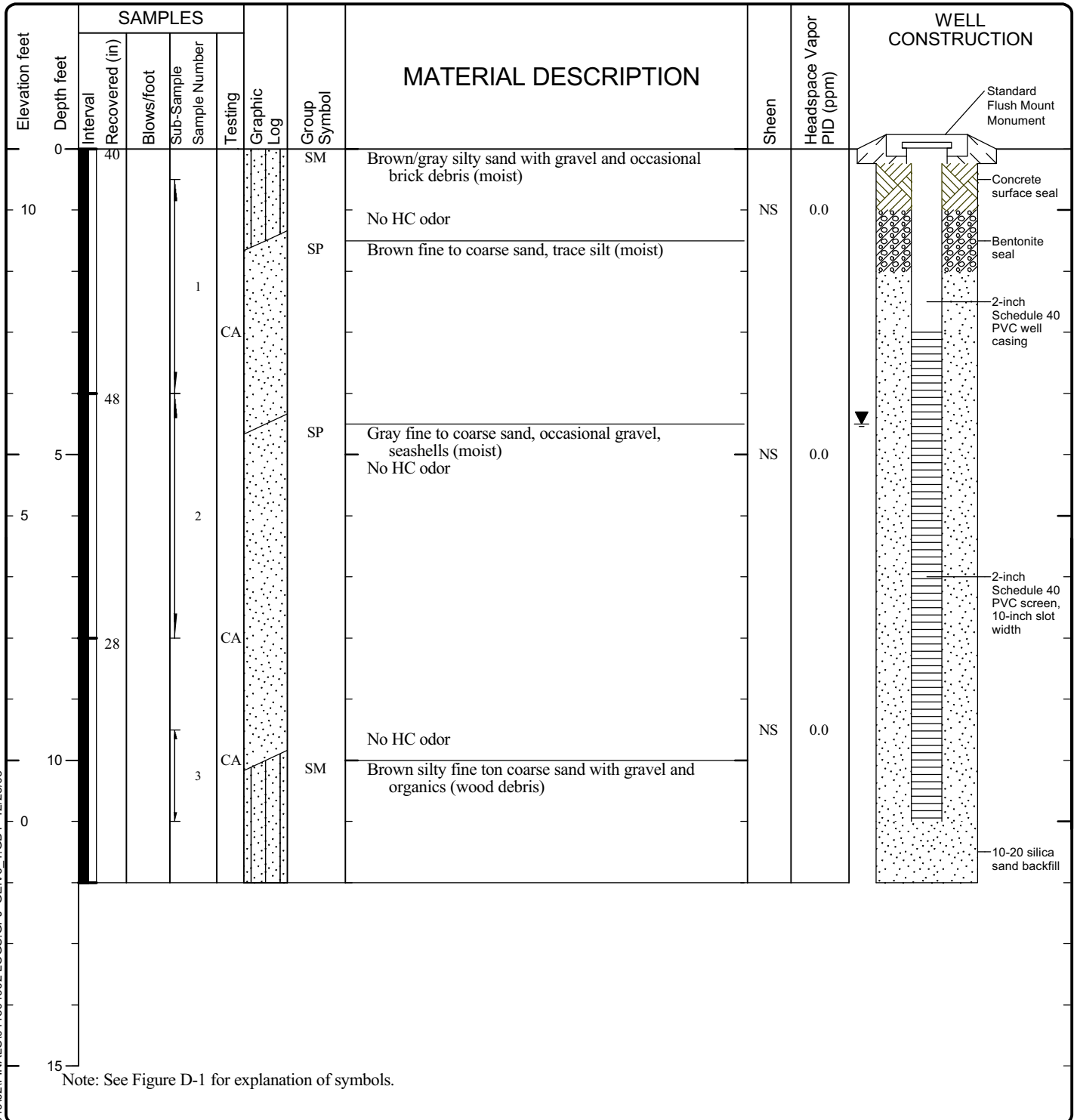


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-11  
Sheet 1 of 1

DRAFT

Date(s) Drilled	10/30/08	Logged By	JCD	Checked By	
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Power Probe
Total Well Depth (ft)	12	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6.5
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898102 47.046482



**LOG OF MONITORING WELL MW-11**



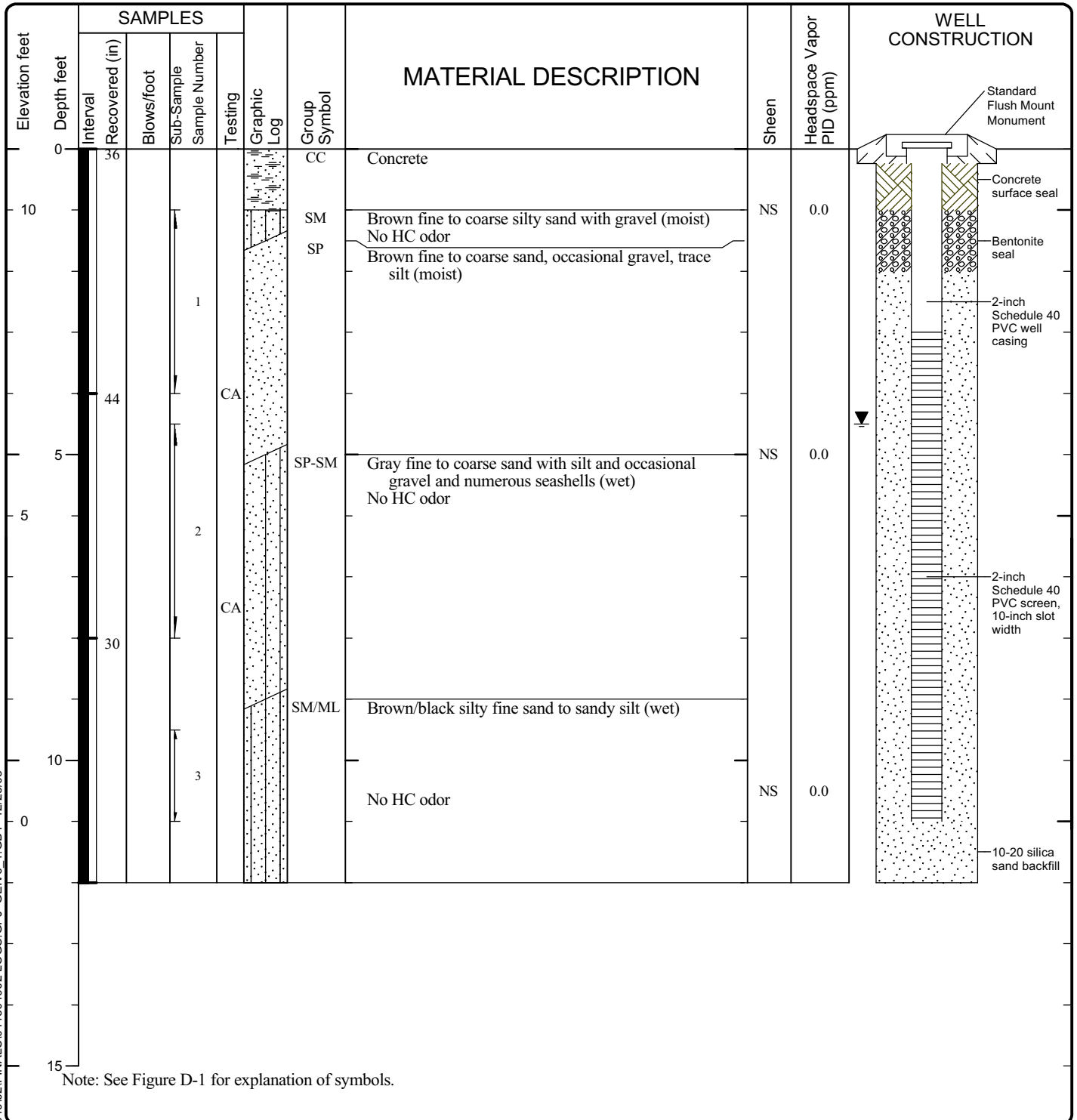
Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-12  
Sheet 1 of 1

V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

DRAFT

Date(s) Drilled	10/31/08	Logged By	JCD	Checked By	
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Power Probe
Total Well Depth (ft)	12	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6.5
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898059 47.046207



**LOG OF MONITORING WELL MW-12**



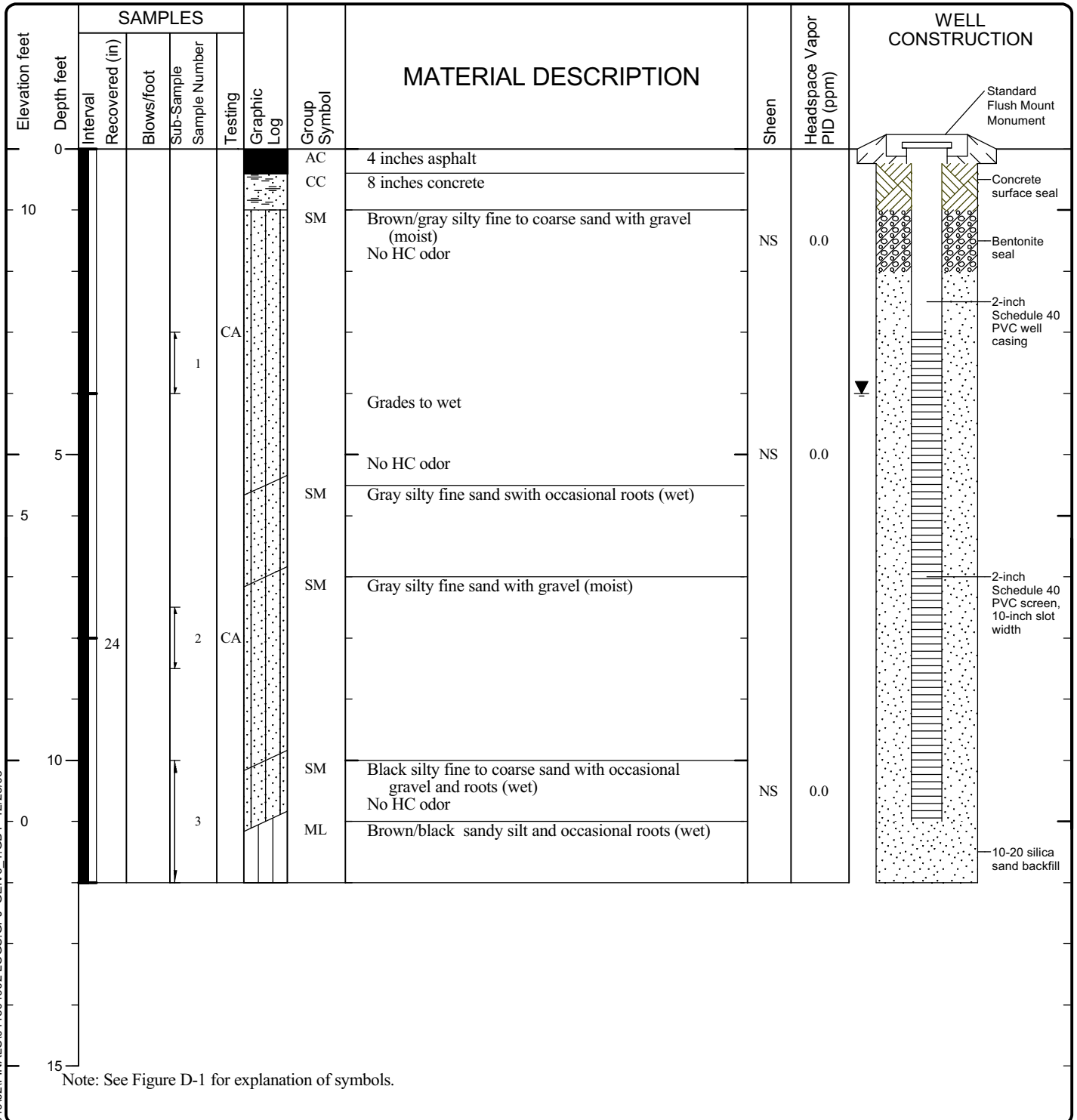
Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-13  
Sheet 1 of 1

V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

DRAFT

Date(s) Drilled	10/30/08	Logged By	JCD	Checked By	
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Power Probe
Total Well Depth (ft)	12	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	7
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898434 47.04594



V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

LOG OF MONITORING WELL MW-13

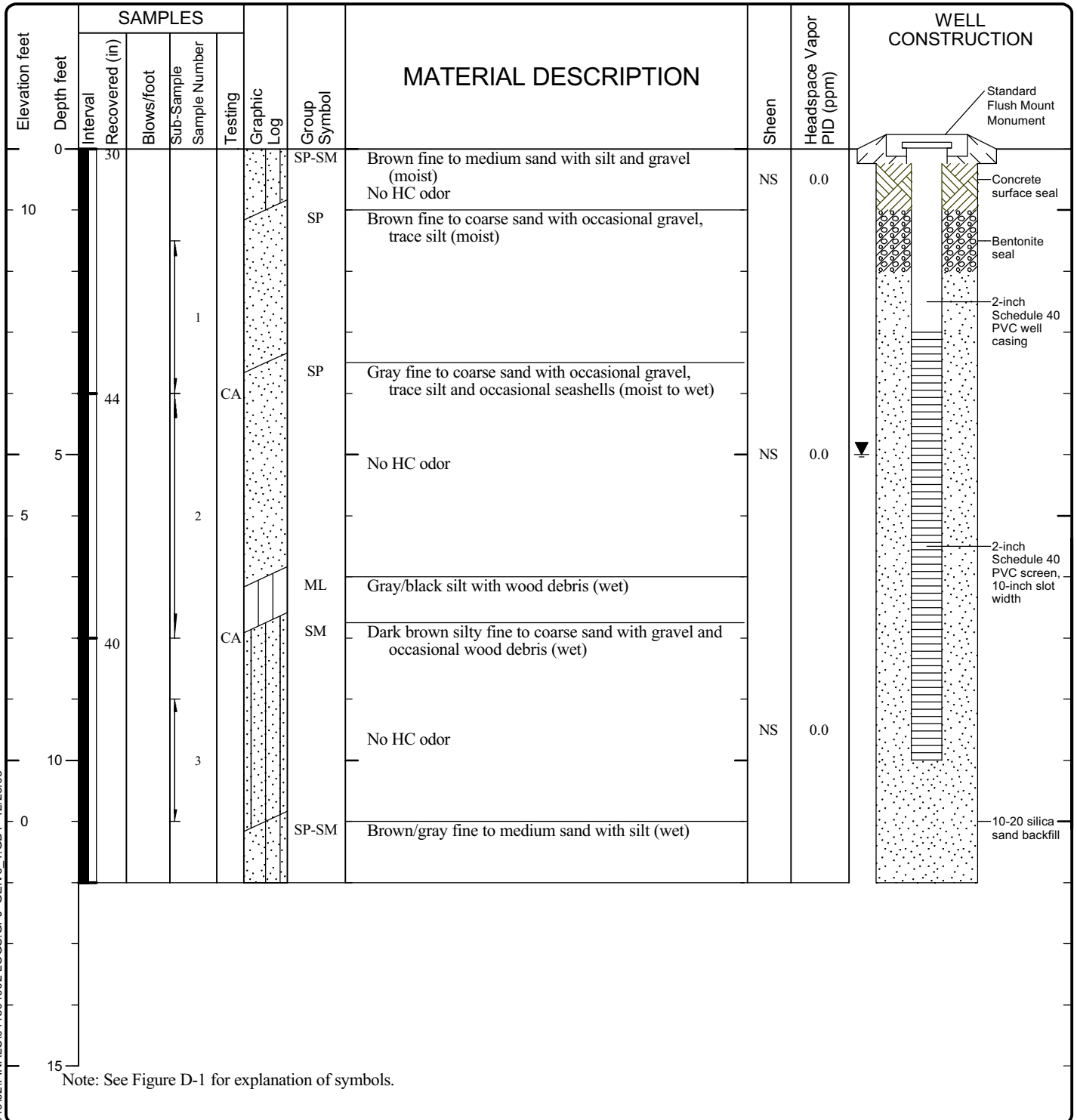


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-14  
Sheet 1 of 1

# DRAFT

Date(s) Drilled	10/31/08	Logged By	JCD	Checked By	JCD
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Power Probe
Total Well Depth (ft)	12	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.899181 47.046234



V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

### LOG OF MONITORING WELL MW-14

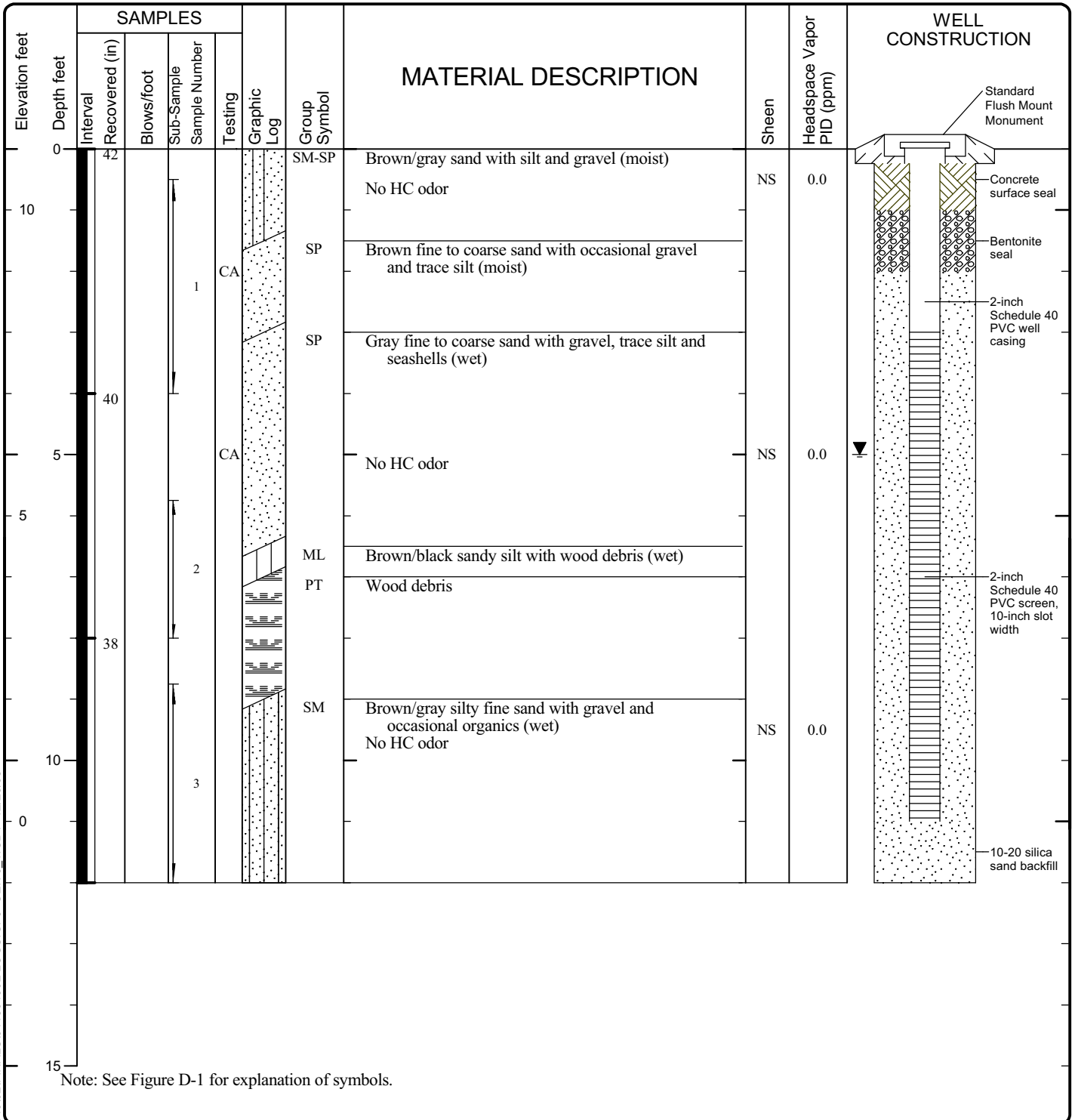


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-15  
Sheet 1 of 1

DRAFT

Date(s) Drilled	10/31/08	Logged By	JCD	Checked By	
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Power Probe
Total Well Depth (ft)	12	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.89909 47.046428



V6 ENVWELL P:\00415049\02\FINAL\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08

**LOG OF MONITORING WELL MW-15**

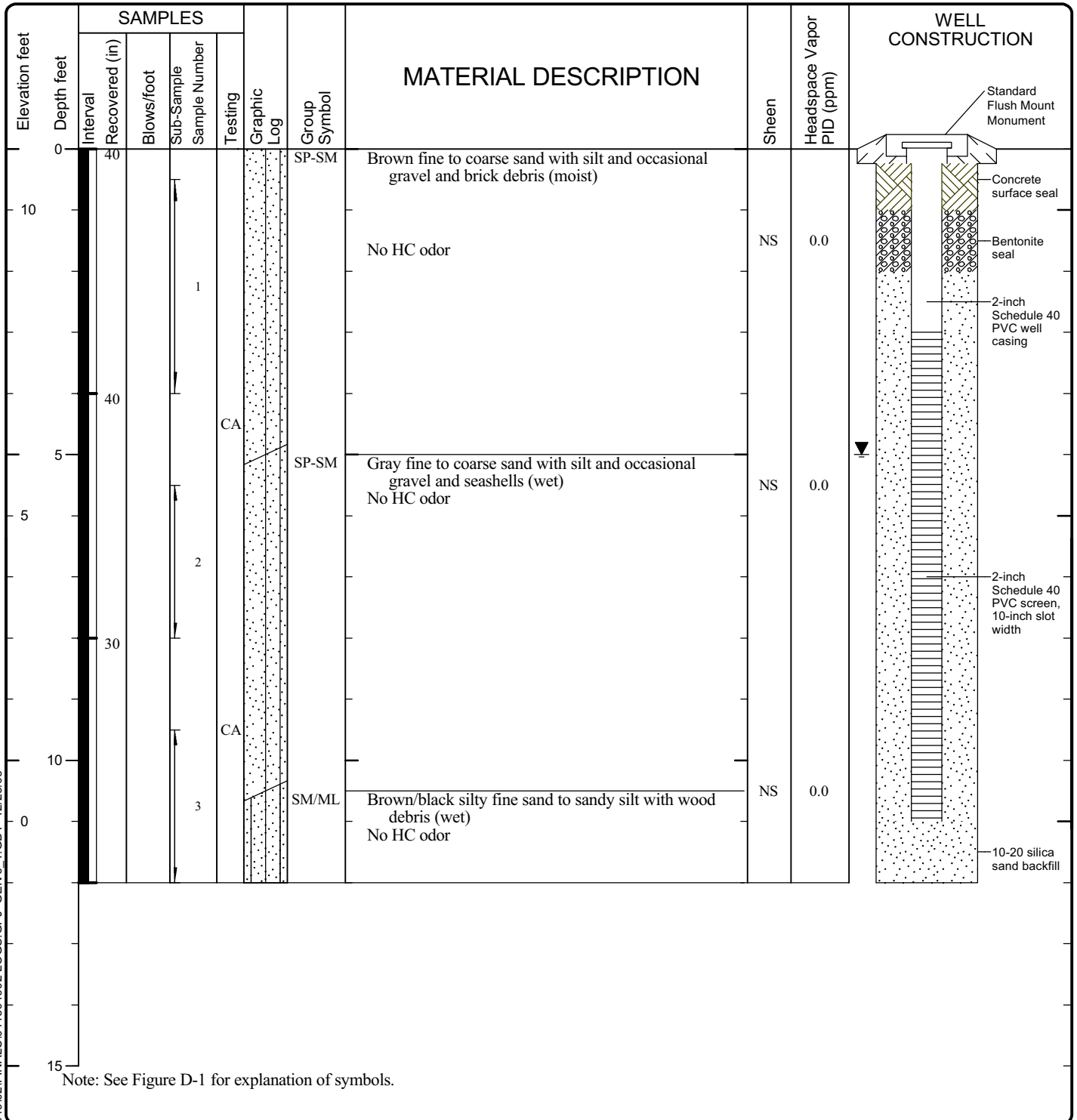


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-16  
Sheet 1 of 1

DRAFT

Date(s) Drilled	10/31/08	Logged By	JCD	Checked By	
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Power Probe
Total Well Depth (ft)	12	Ground Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898463 47.04654



**LOG OF MONITORING WELL MW-16**



Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

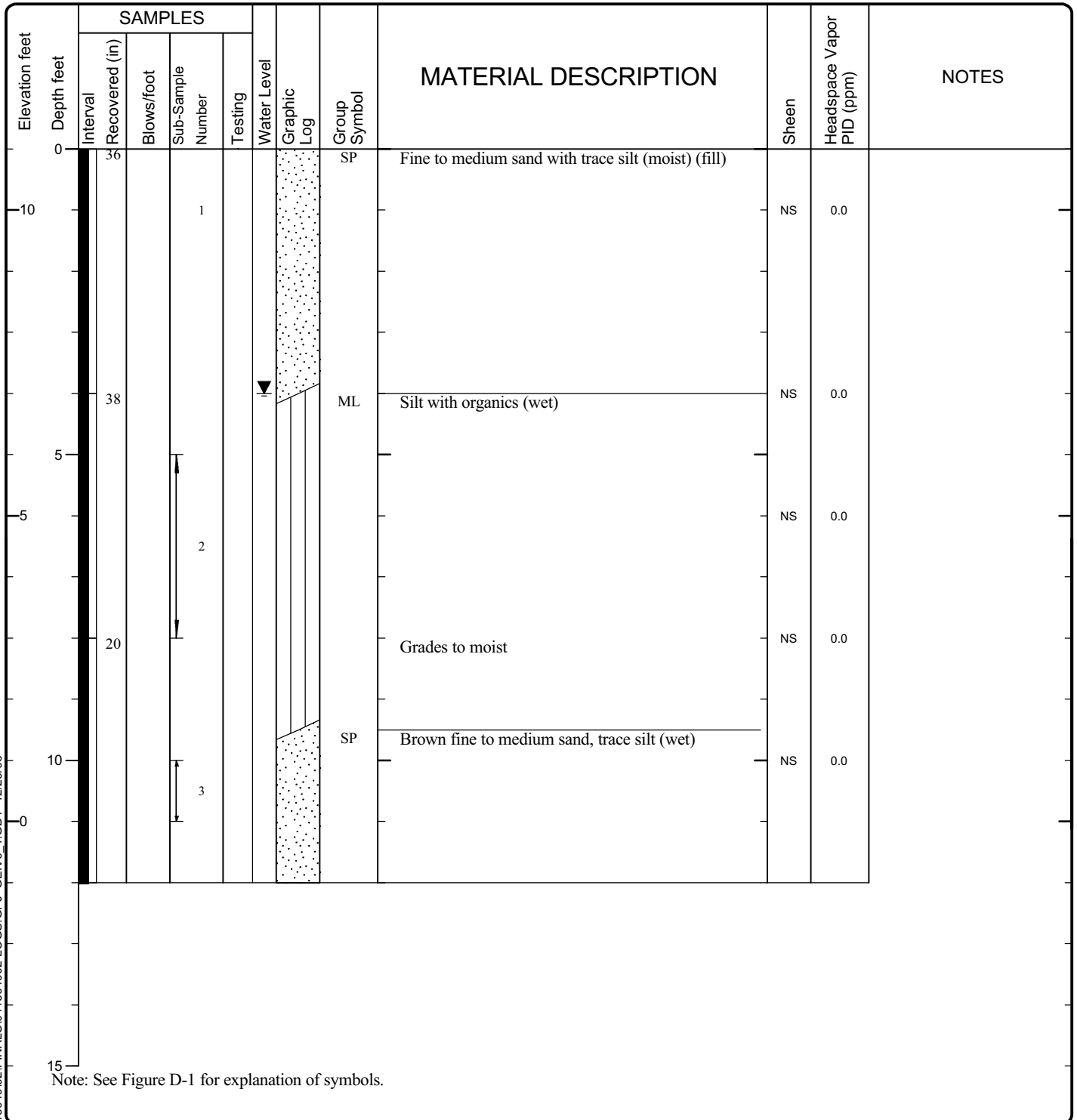
Figure D-17  
Sheet 1 of 1

V6 ENVWELL P:\00415049\02\FINALS\041504902.LOGS.GPJ GEIV6\_1.GDT 12/23/08



DRAFT

Date(s) Drilled	07/19/06	Logged By	AJF	Checked By	NB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	7
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.899145 47.046081



V6 ENVBORING P:\0\0415049\02\FINALS\041504902 LOGS.GPJ GEIV6\_1.GDT 12/23/08

LOG OF BORING PP-01

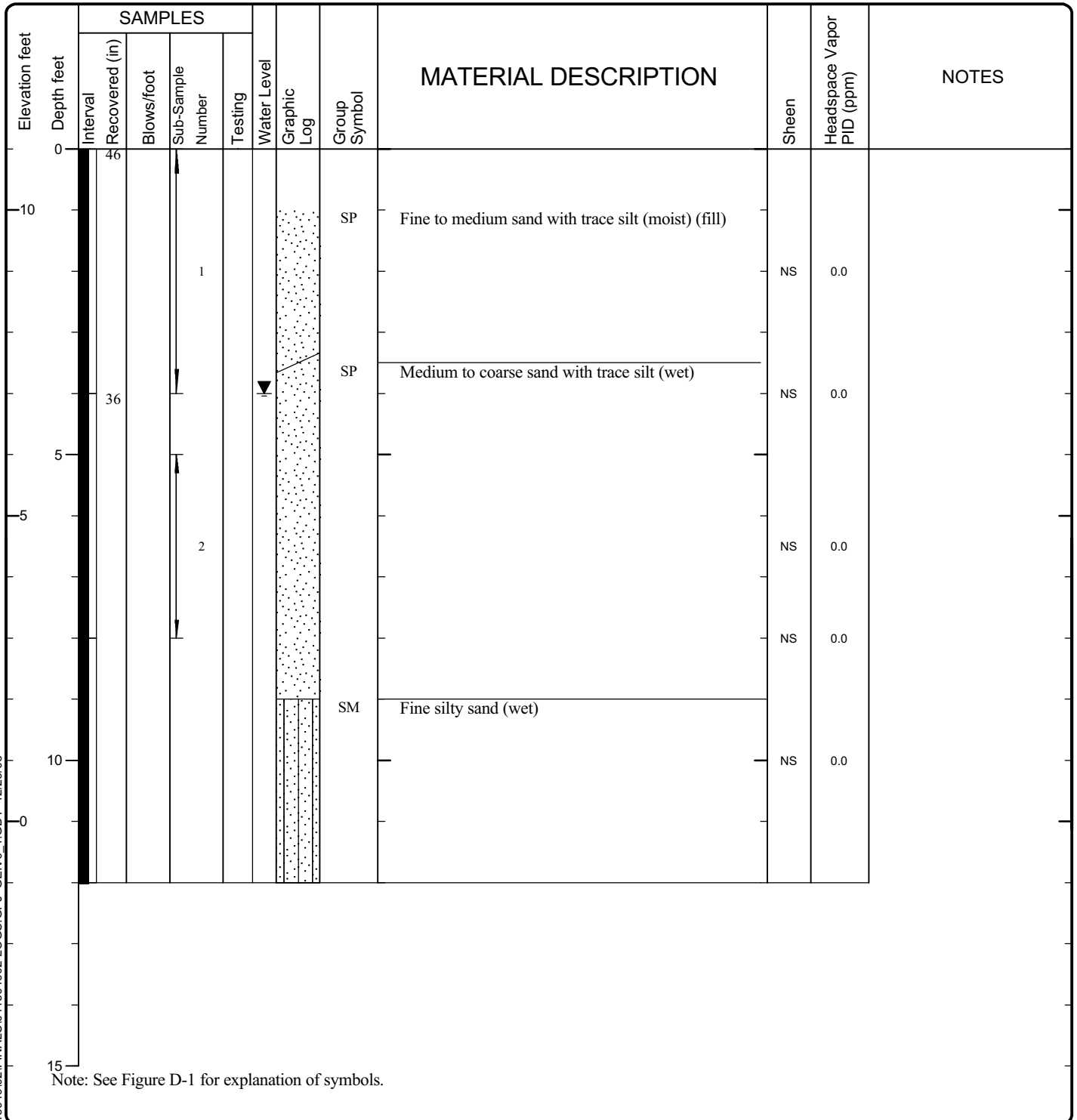


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-18  
Sheet 1 of 1

DRAFT

Date(s) Drilled	07/19/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	7
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898898 47.046094



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ GEIV6 1.GDT 12/23/08

LOG OF BORING PP-02

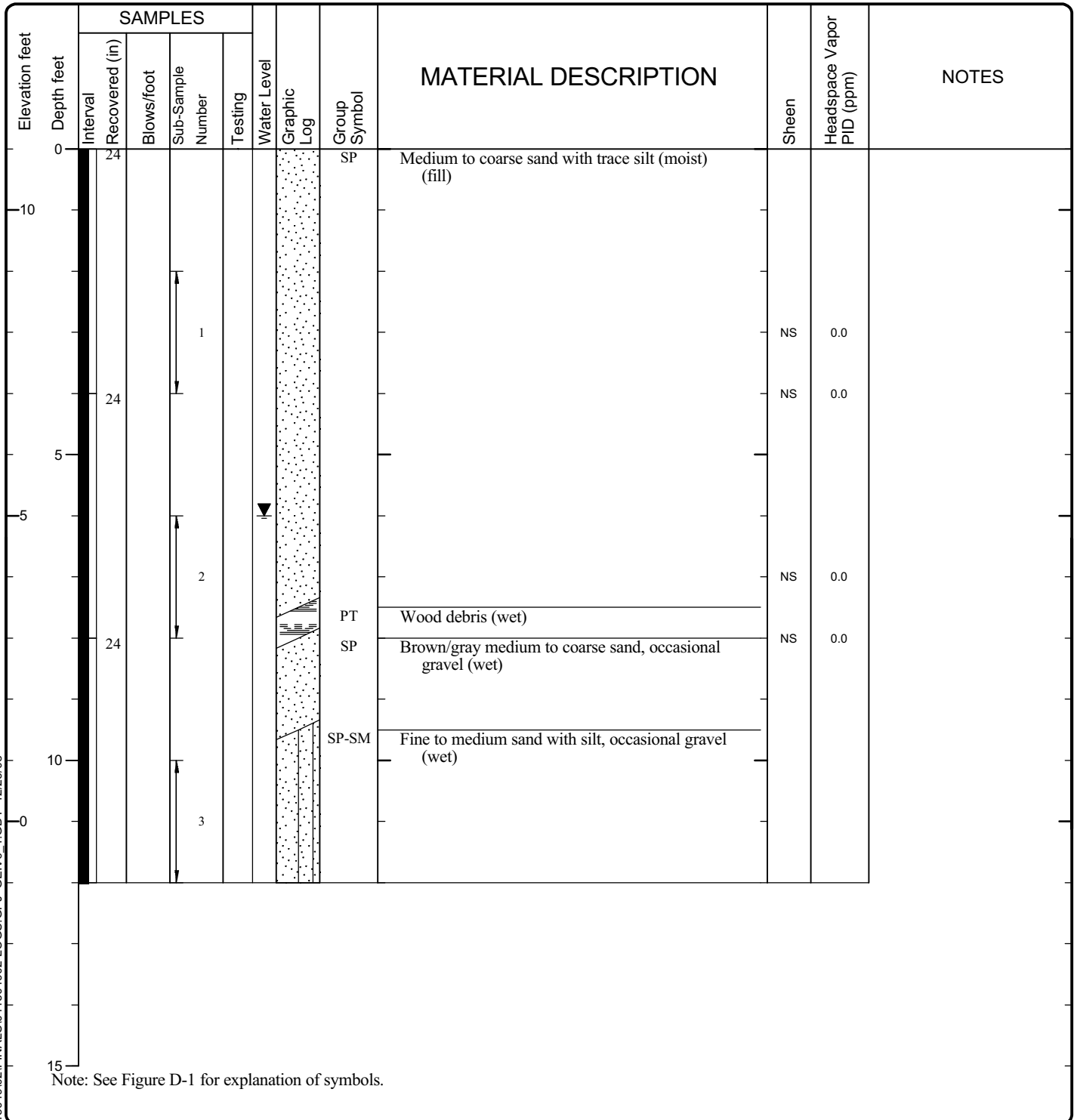


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-19  
Sheet 1 of 1

DRAFT

Date(s) Drilled	07/19/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	5
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.89868 47.046093



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ GEIV6\_1.GDT 12/23/08

### LOG OF BORING PP-03

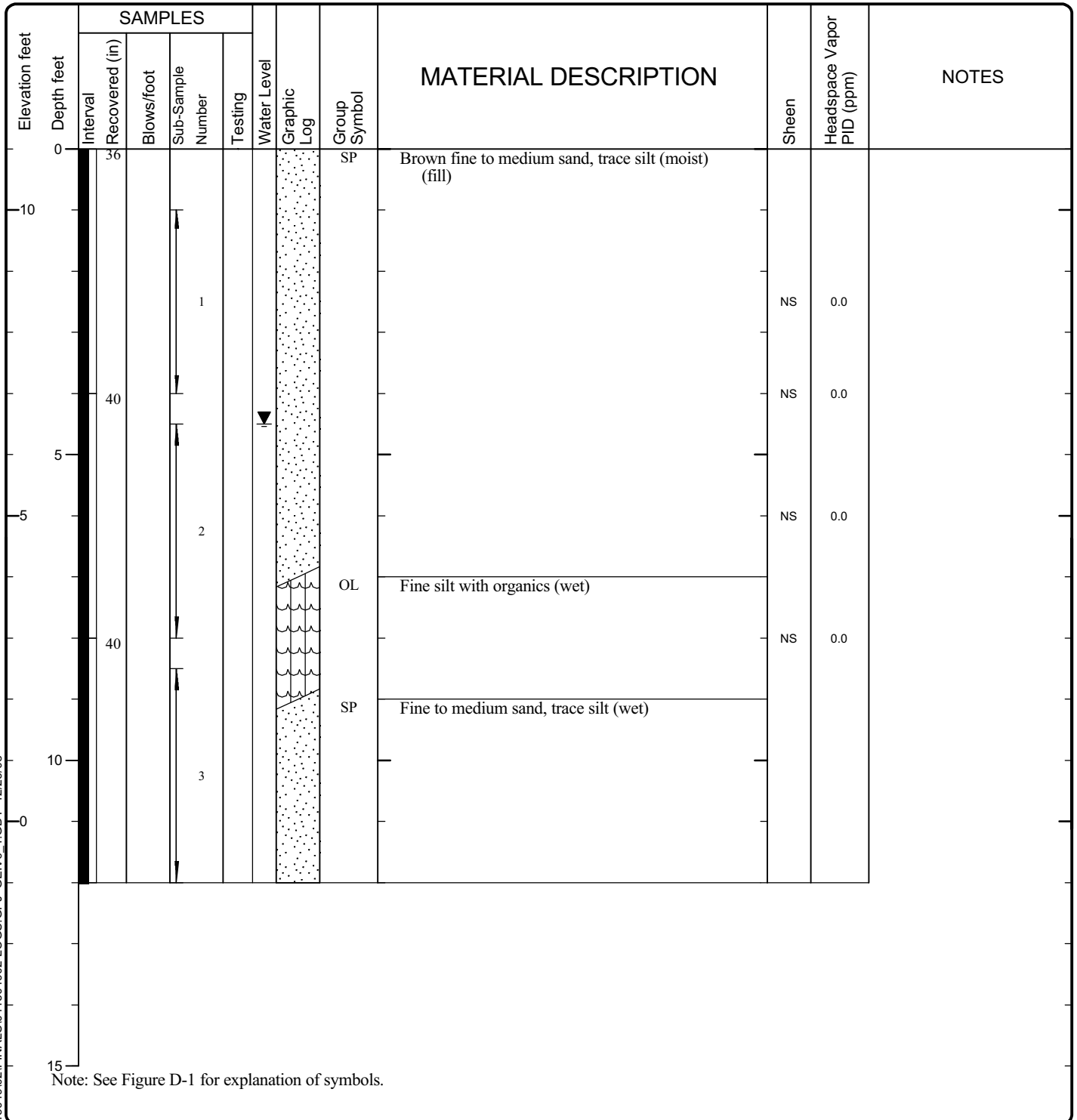


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-20  
Sheet 1 of 1

DRAFT

Date(s) Drilled	07/20/06	Logged By	AJF	Checked By	NB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	6.5
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898993 47.046224



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ GEIV6 1.GDT 12/23/08

LOG OF BORING PP-04



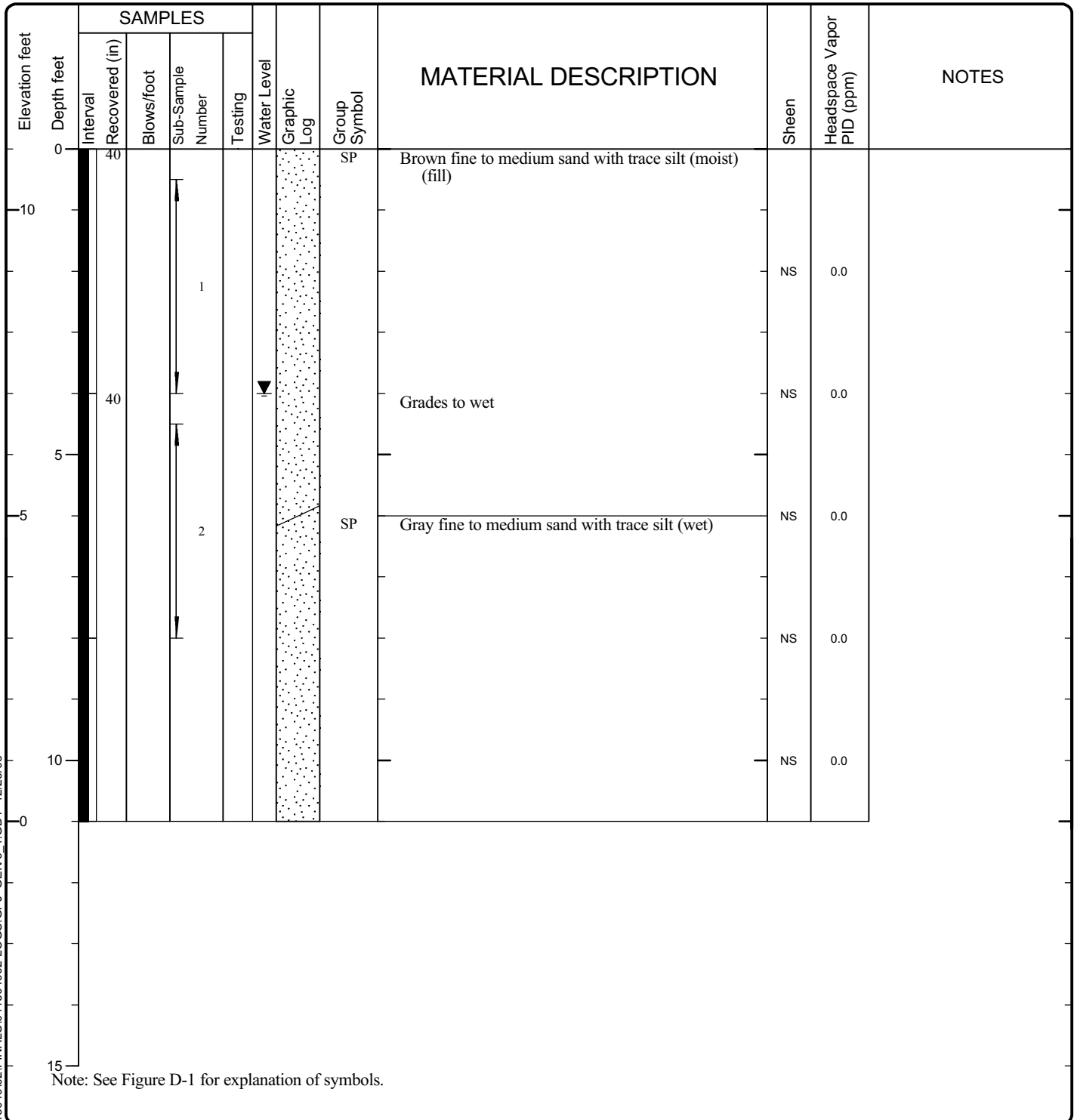
Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-21  
Sheet 1 of 1



DRAFT

Date(s) Drilled	07/19/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	11	Surface Elevation (ft)	11	Groundwater Elevation (ft)	7
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898889 47.046541



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ GEIV6\_1.GDT 12/23/08

**LOG OF BORING PP-06**

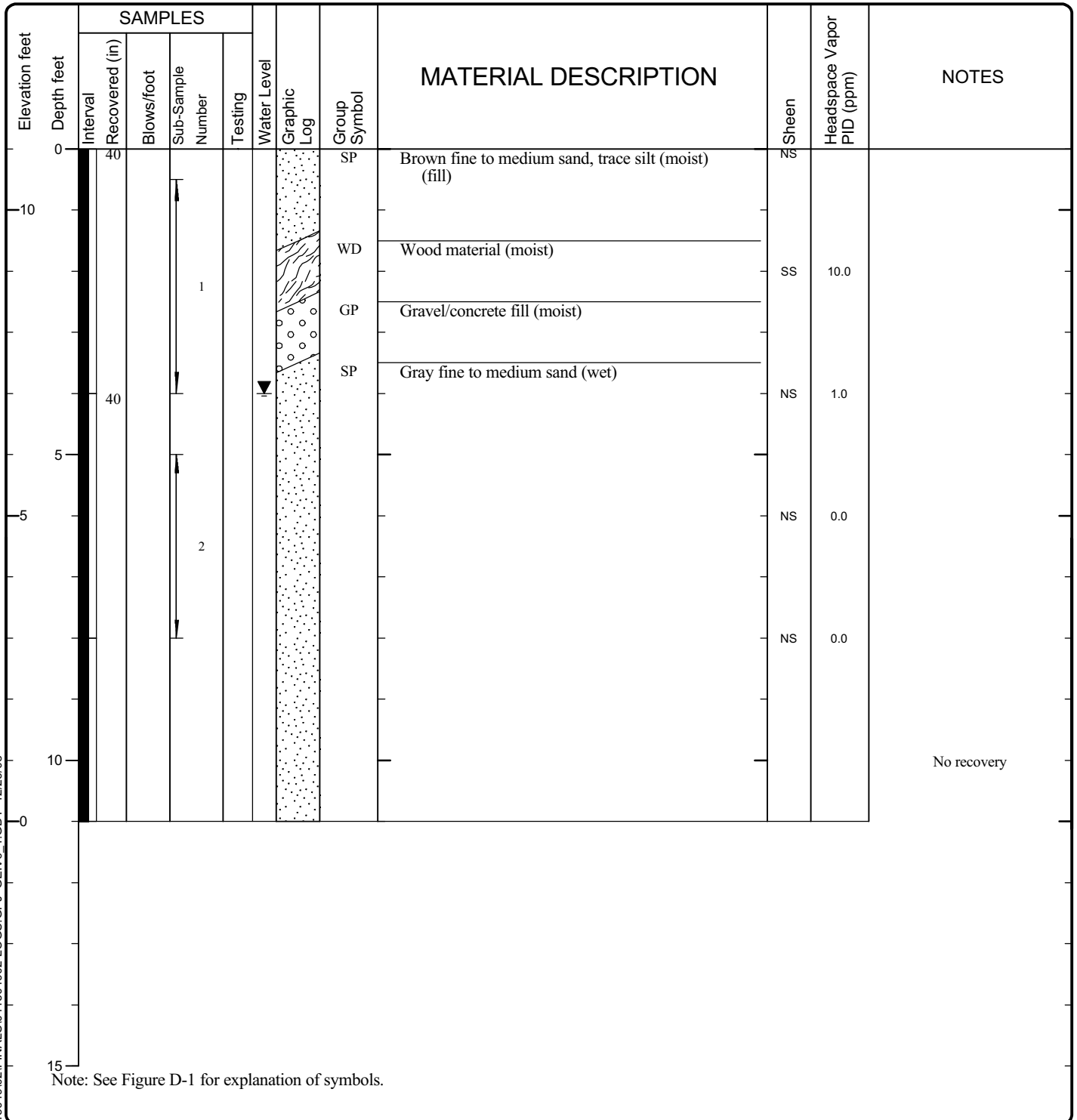


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-23  
Sheet 1 of 1

DRAFT

Date(s) Drilled	07/20/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	11	Surface Elevation (ft)	11	Groundwater Elevation (ft)	7
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898642 47.04657



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ - GEIV6\_1.GDT 12/23/08

**LOG OF BORING PP-07**

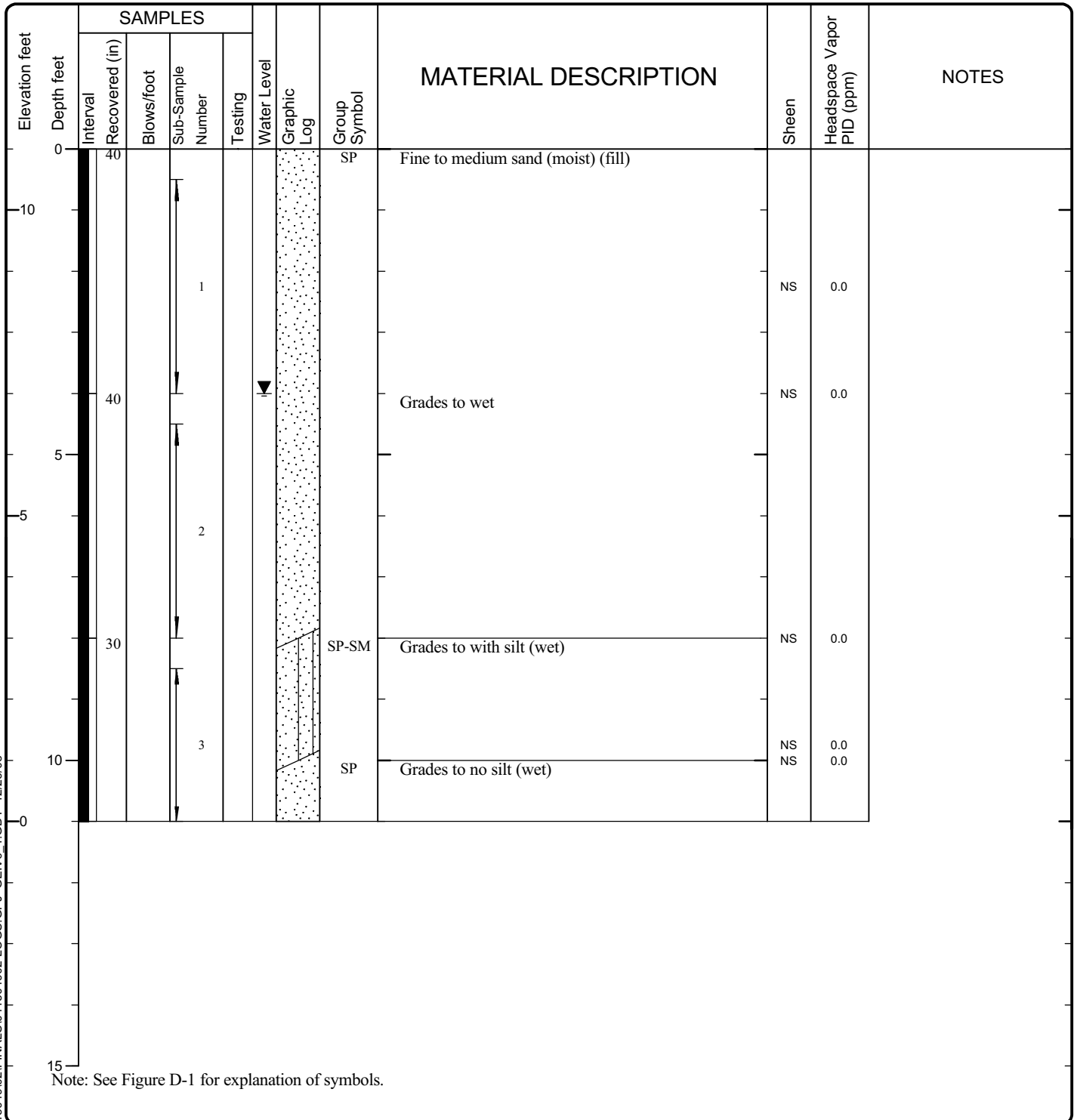


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-24  
Sheet 1 of 1

DRAFT

Date(s) Drilled	07/20/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	11	Surface Elevation (ft)	11	Groundwater Elevation (ft)	7
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898325 47.046588



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ - GEIV6\_1.GDT 12/23/08

**LOG OF BORING PP-08**

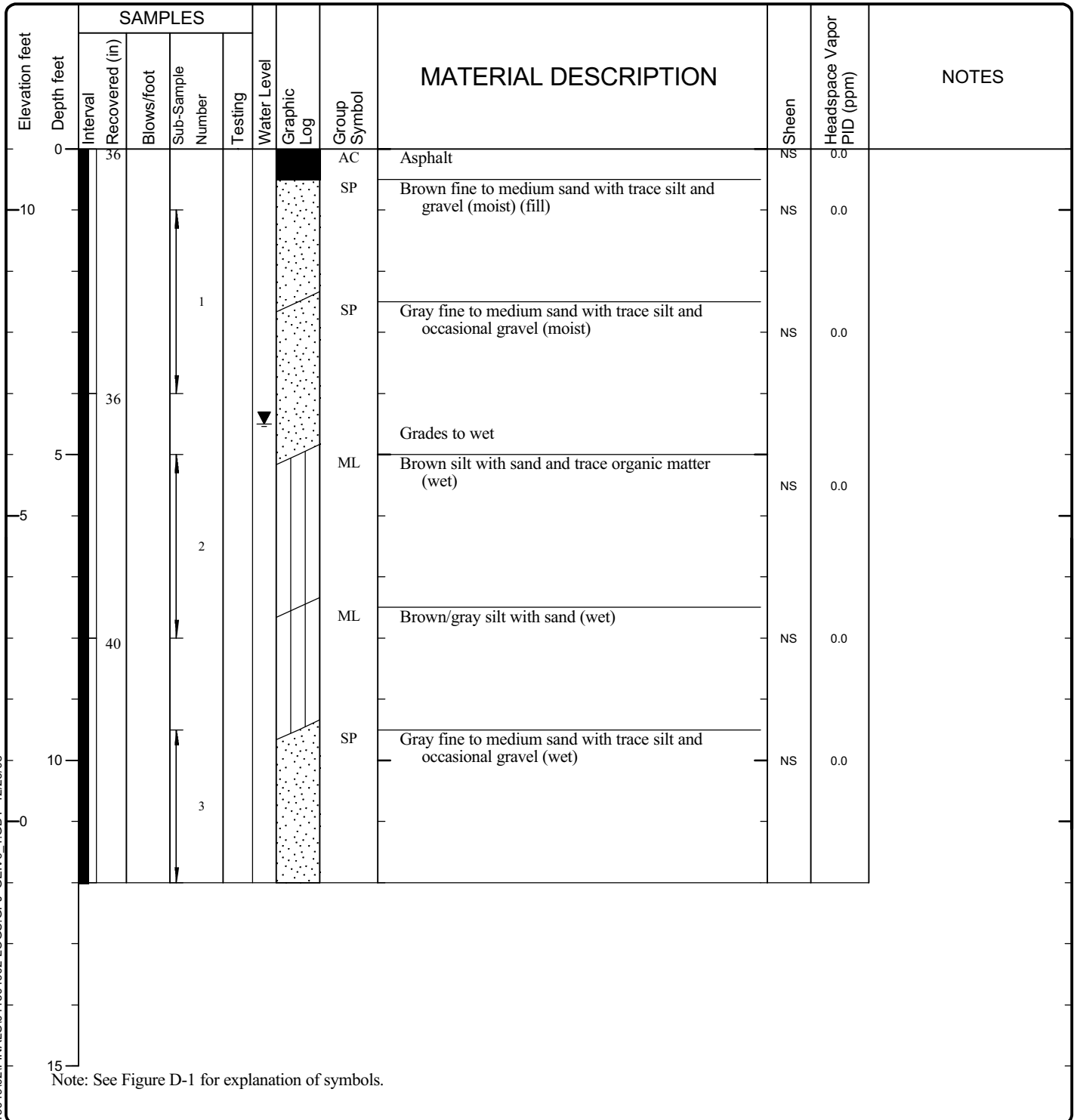


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-25  
Sheet 1 of 1



Date(s) Drilled	09/15/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data		Hammer Data	Direct Push	Drilling Equipment	StrataProbe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	6.5
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.899169 47.046061



V6 ENVBORING P:\0\0415049\02\FINALS\041504902 LOGS.GPJ GEIV6\_1.GDT 12/23/08

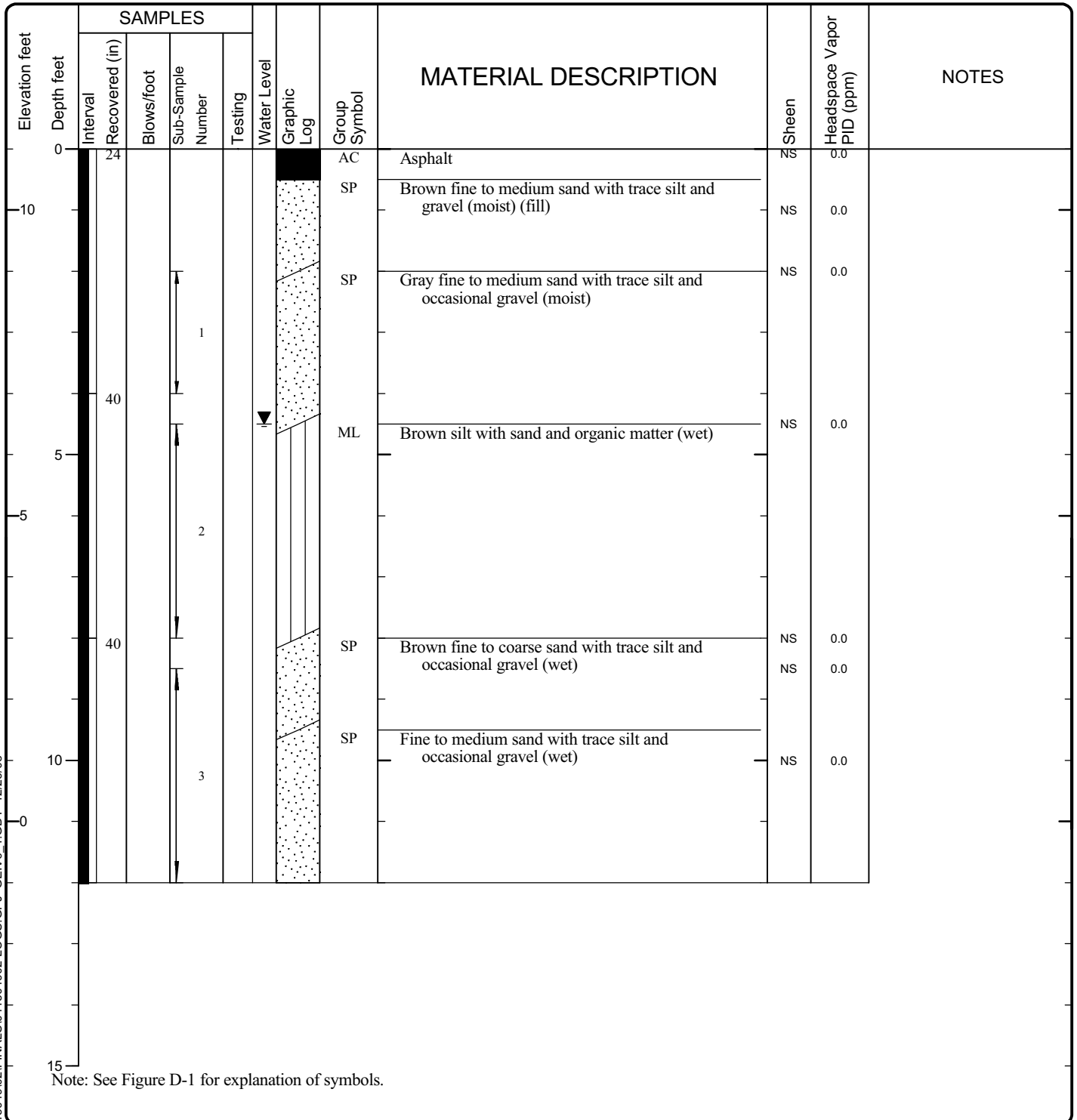
**LOG OF BORING PP-09**



Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

DRAFT

Date(s) Drilled	09/15/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data		Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	6.5
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.899174 47.046099



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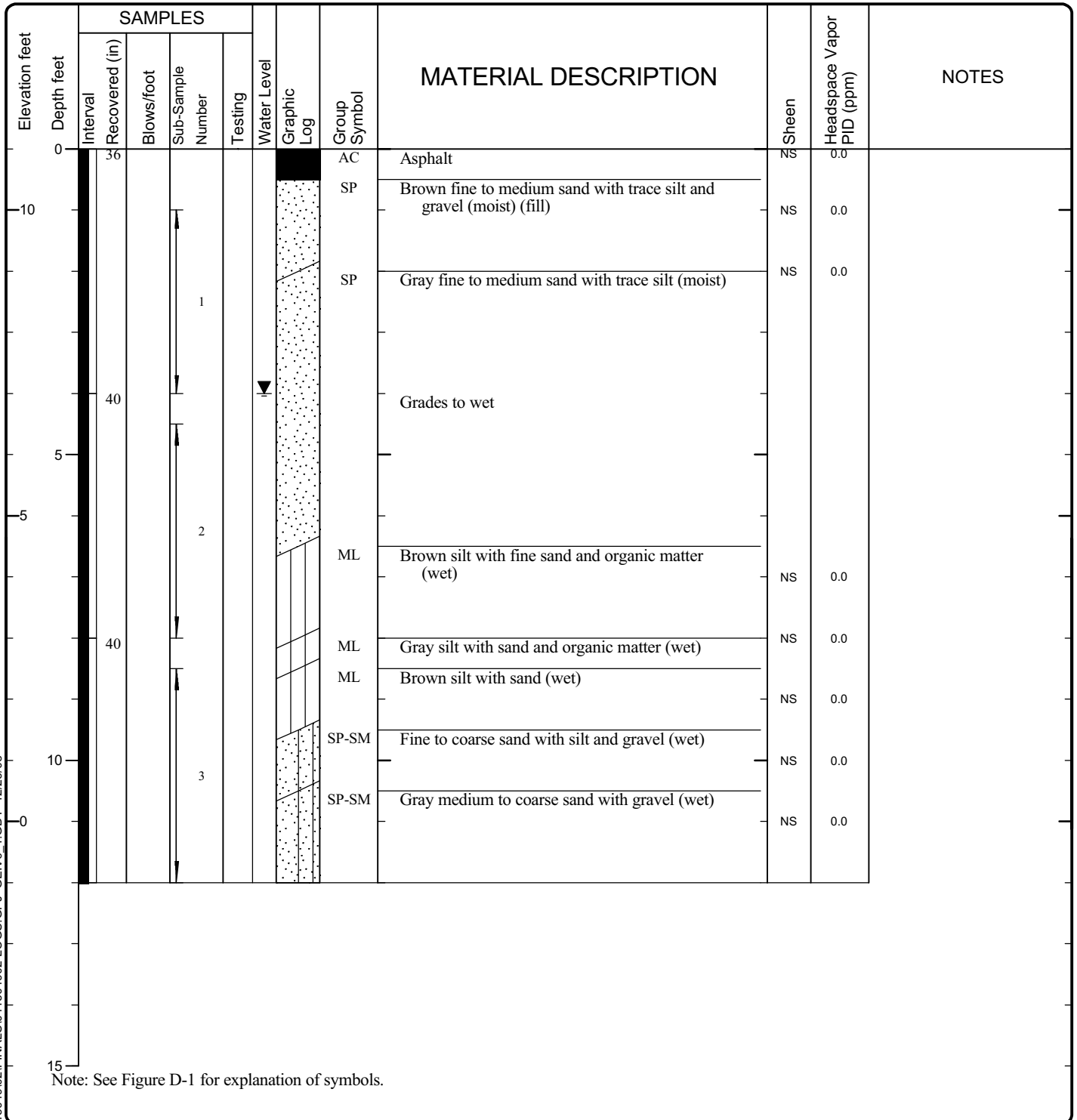
**LOG OF BORING PP-10**



Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-27  
Sheet 1 of 1

Date(s) Drilled	09/15/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data		Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	7
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.899109 47.046108



V6 ENVBORING P:\0\0415049\02\FINALS\041504902 LOGS.GPJ GEIV6 1.GDT 12/23/08

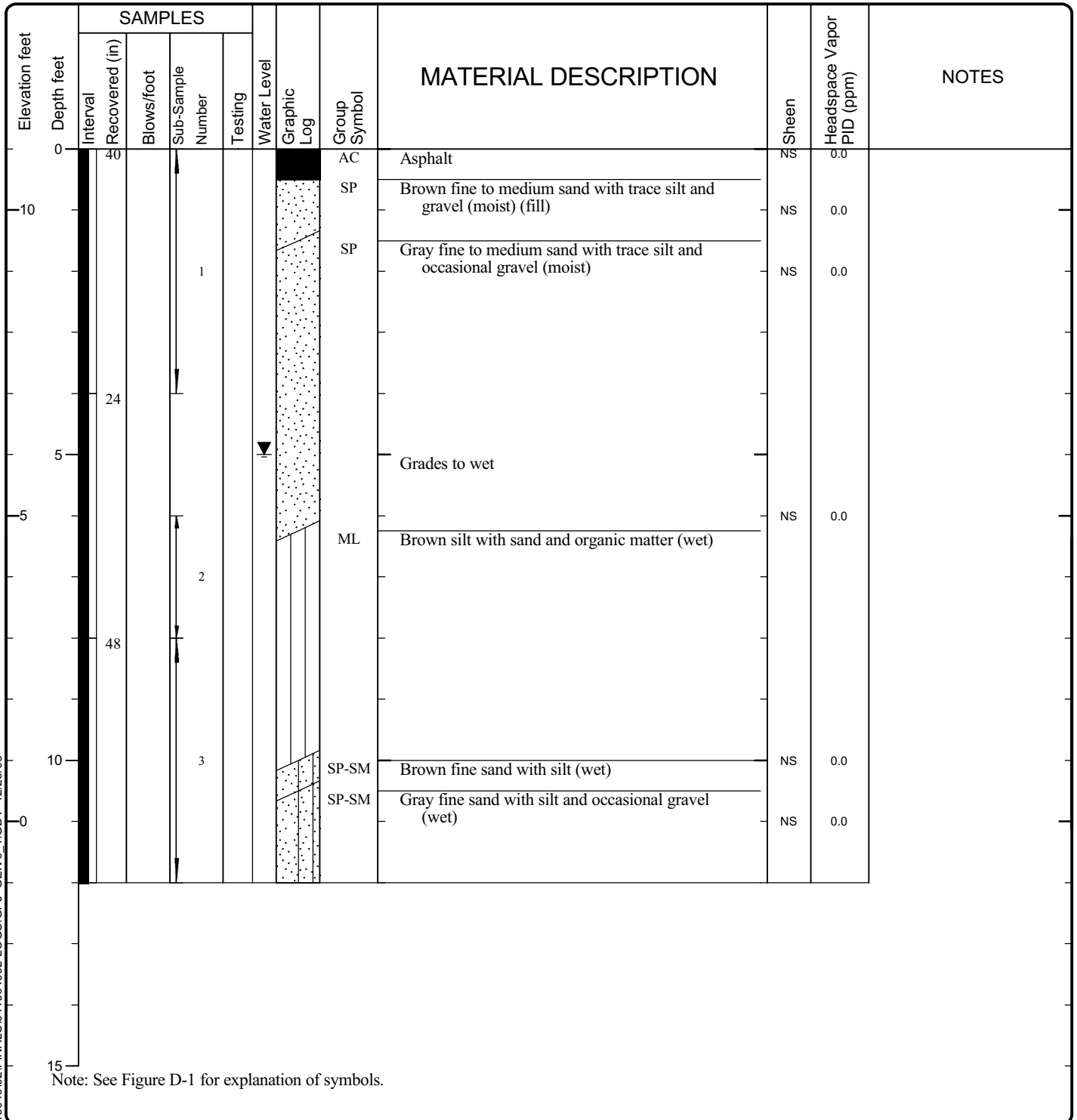
### LOG OF BORING PP-11



Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

DRAFT

Date(s) Drilled	09/15/06	Logged By	AJF	Checked By	NB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data		Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	6
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.899091 47.046069



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ GEIV6\_1.GDT 12/23/08

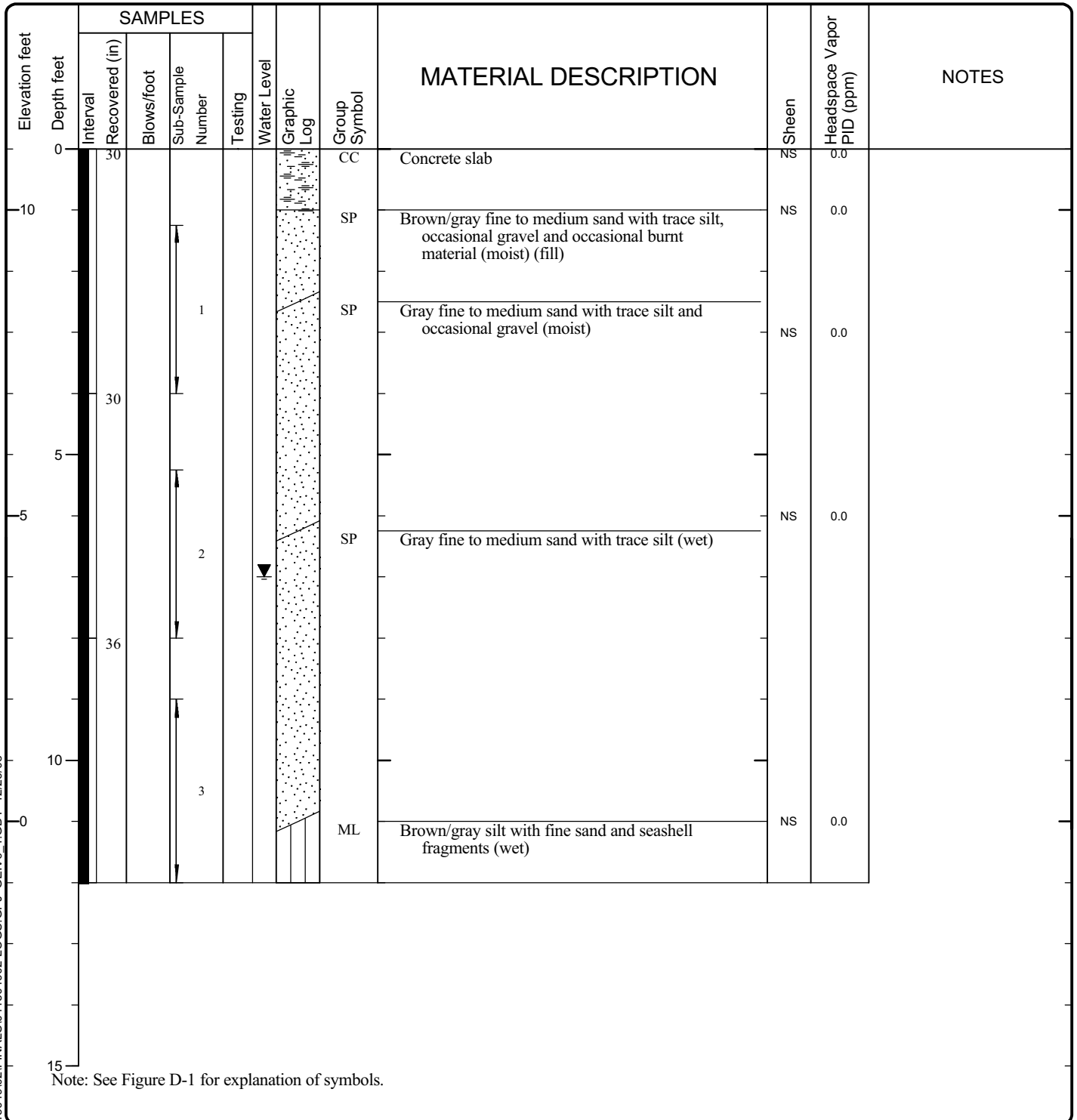
**LOG OF BORING PP-12**



Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-29  
Sheet 1 of 1

Date(s) Drilled 09/15/06	Logged By AJF	Checked By N.B./A.R.
Drilling Contractor ESN	Drilling Method Direct Push (DP)	Sampling Methods Macrocore
Auger Data	Hammer Data Direct Push	Drilling Equipment Strataprobe
Total Depth (ft) 12	Surface Elevation (ft) 11	Groundwater Elevation (ft) 4
Vertical Datum NGVD 29	Datum/System WGS 84	Easting(x): -122.898331 Northing(y): 47.046474



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ GEIV6\_1.GDT 12/23/08

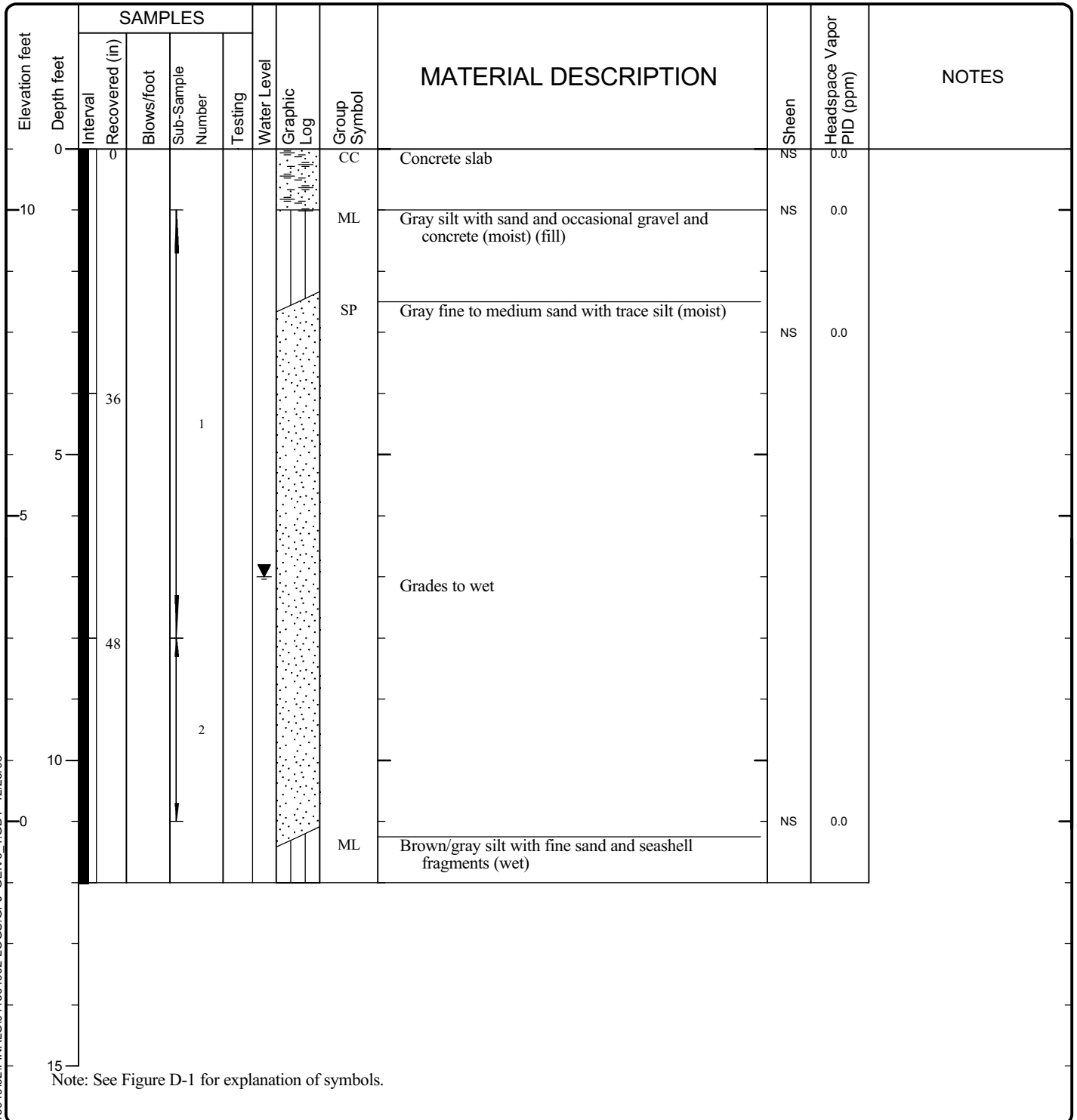
LOG OF BORING PP-13



Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

DRAFT

Date(s) Drilled	09/14/06	Logged By	AJF	Checked By	NB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data		Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	4
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898371 47.046517



V6 ENVBORING P:\0\0415049\02\FINALS\041504902 LOGS.GPJ GEIV6 1.GDT 12/23/08

**LOG OF BORING PP-14**

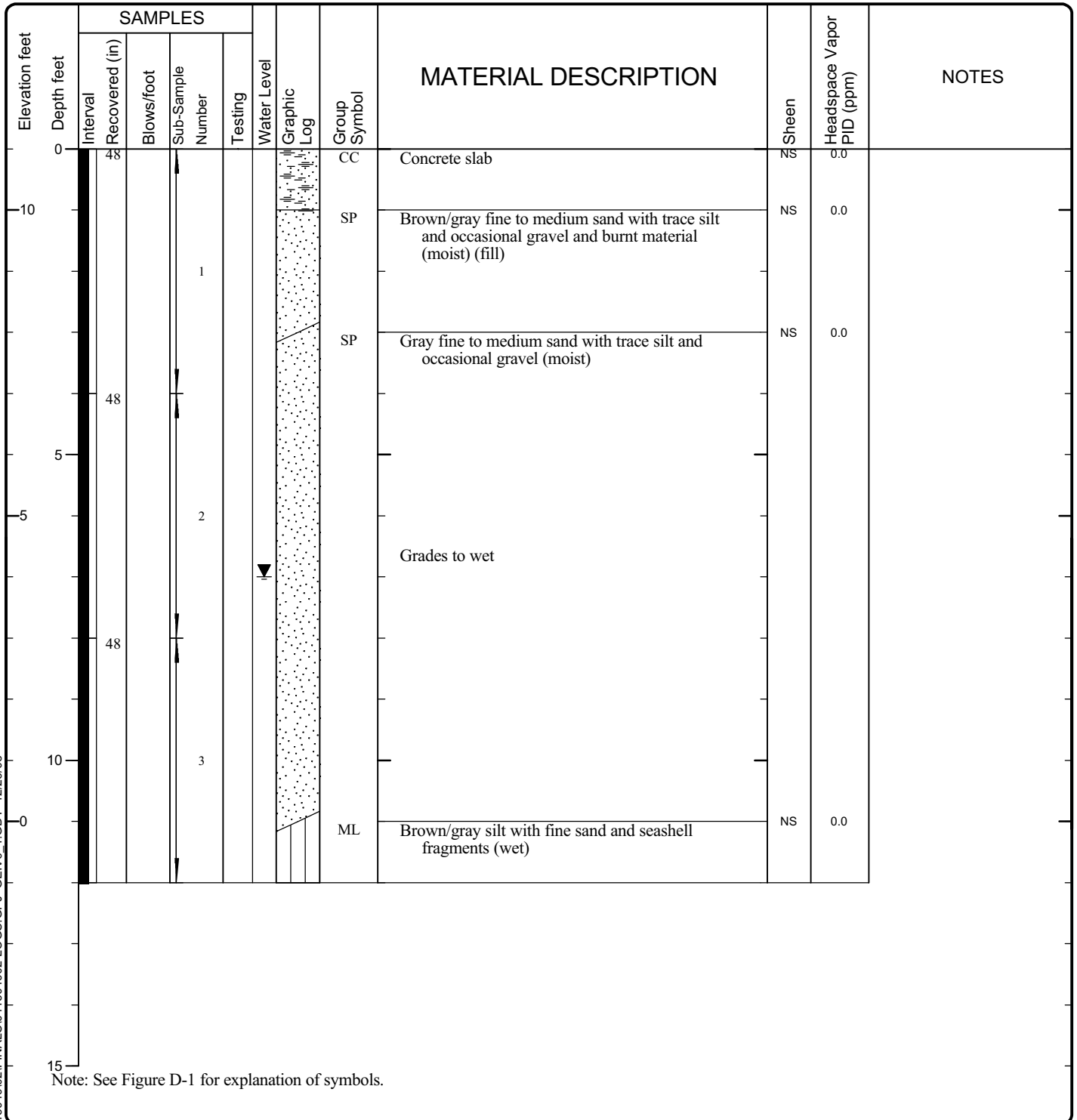


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-31  
Sheet 1 of 1

DRAFT

Date(s) Drilled	09/14/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data		Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	4
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898334 47.046297



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ GEIV6\_1.GDT 12/23/08

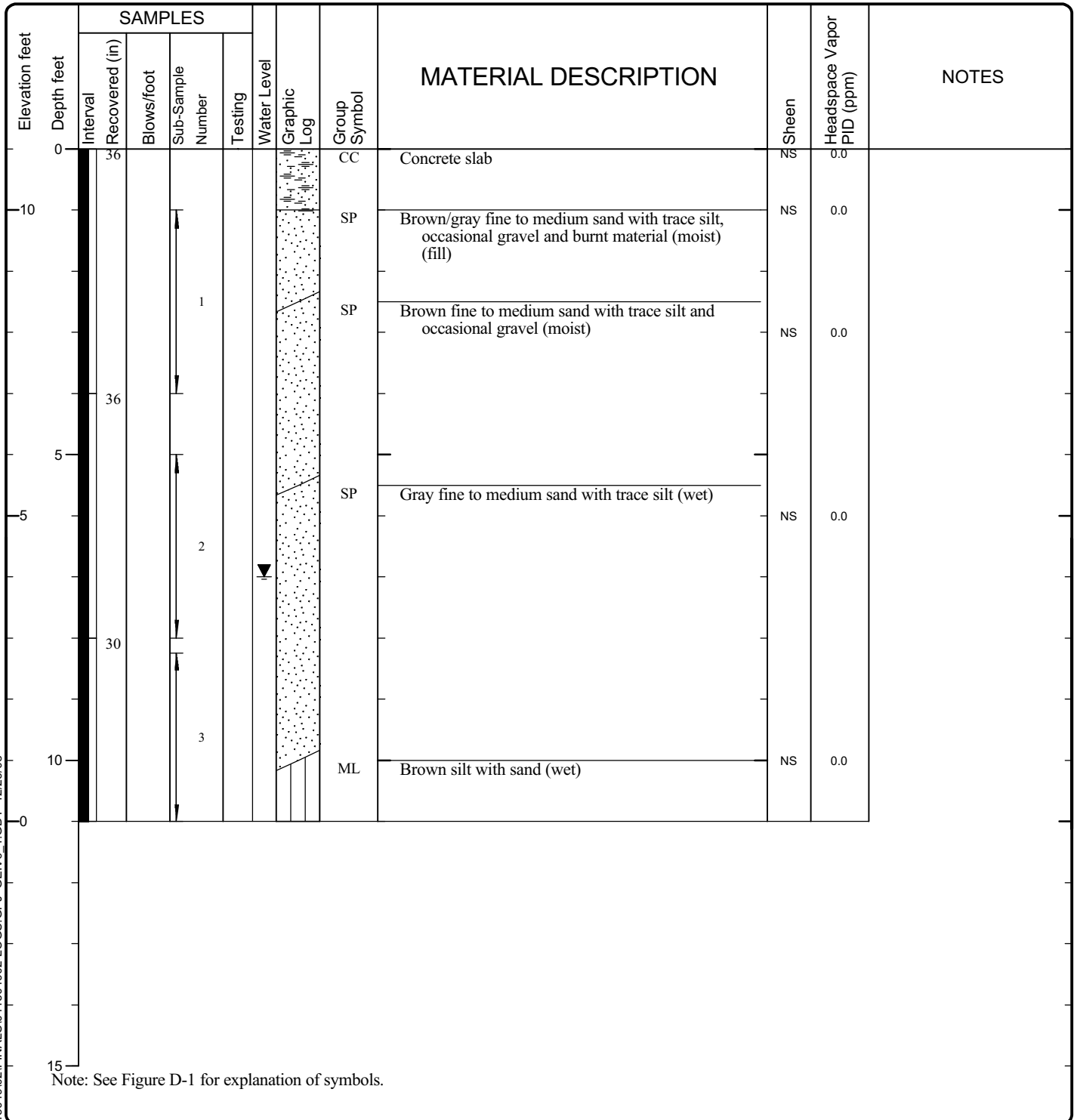
**LOG OF BORING PP-15**



Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-32  
Sheet 1 of 1

Date(s) Drilled	09/14/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data		Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	11	Surface Elevation (ft)	11	Groundwater Elevation (ft)	4
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898308 47.046139



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ GEIV6\_1.GDT 12/23/08

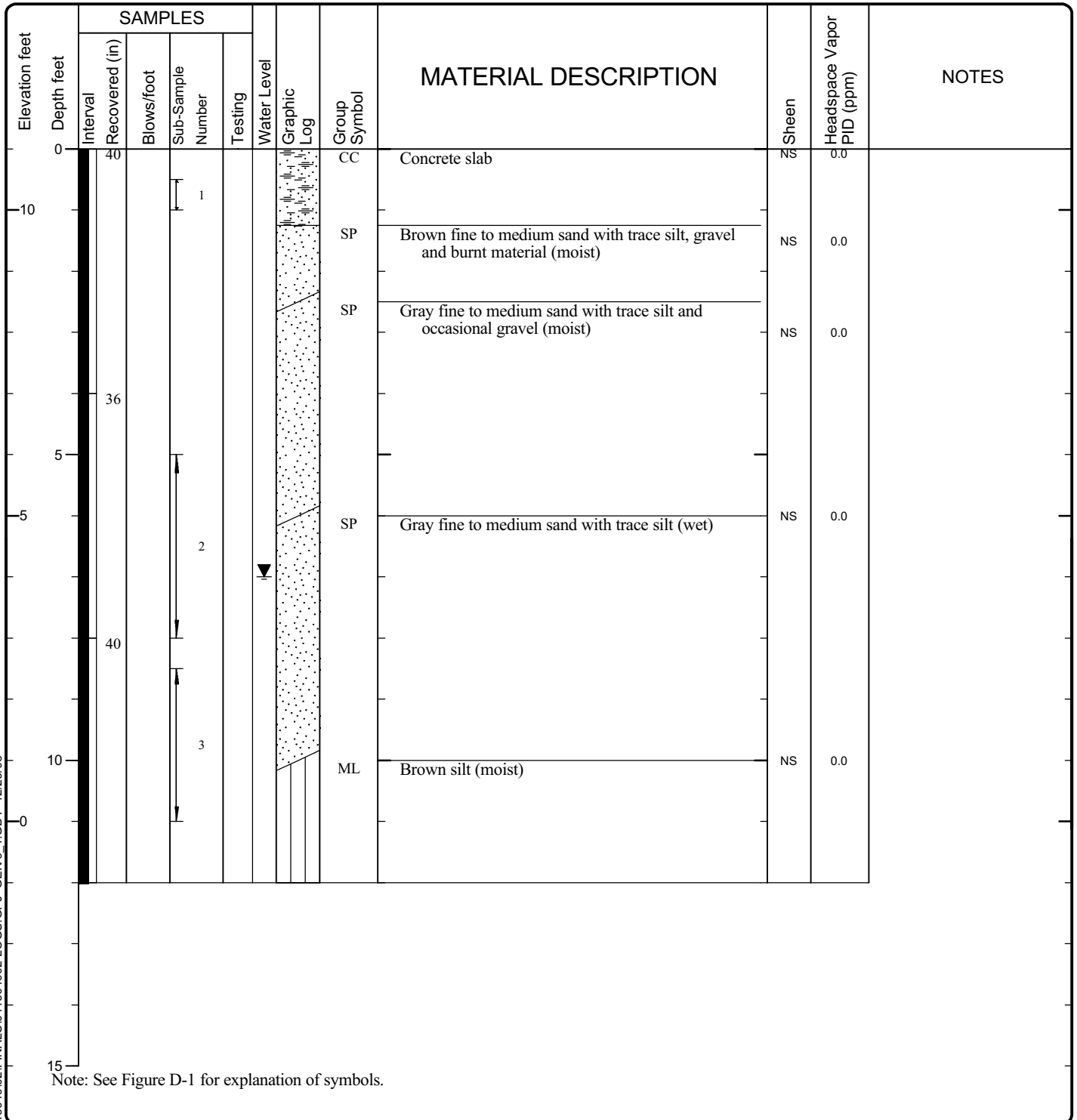
### LOG OF BORING PP-16



Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02



Date(s) Drilled	09/14/06	Logged By	AJF	Checked By	MB/AR
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	Macrocore
Auger Data		Hammer Data	Direct Push	Drilling Equipment	Strataprobe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	4
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898211 47.046292



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ GEIV6 1.GDT 12/23/08

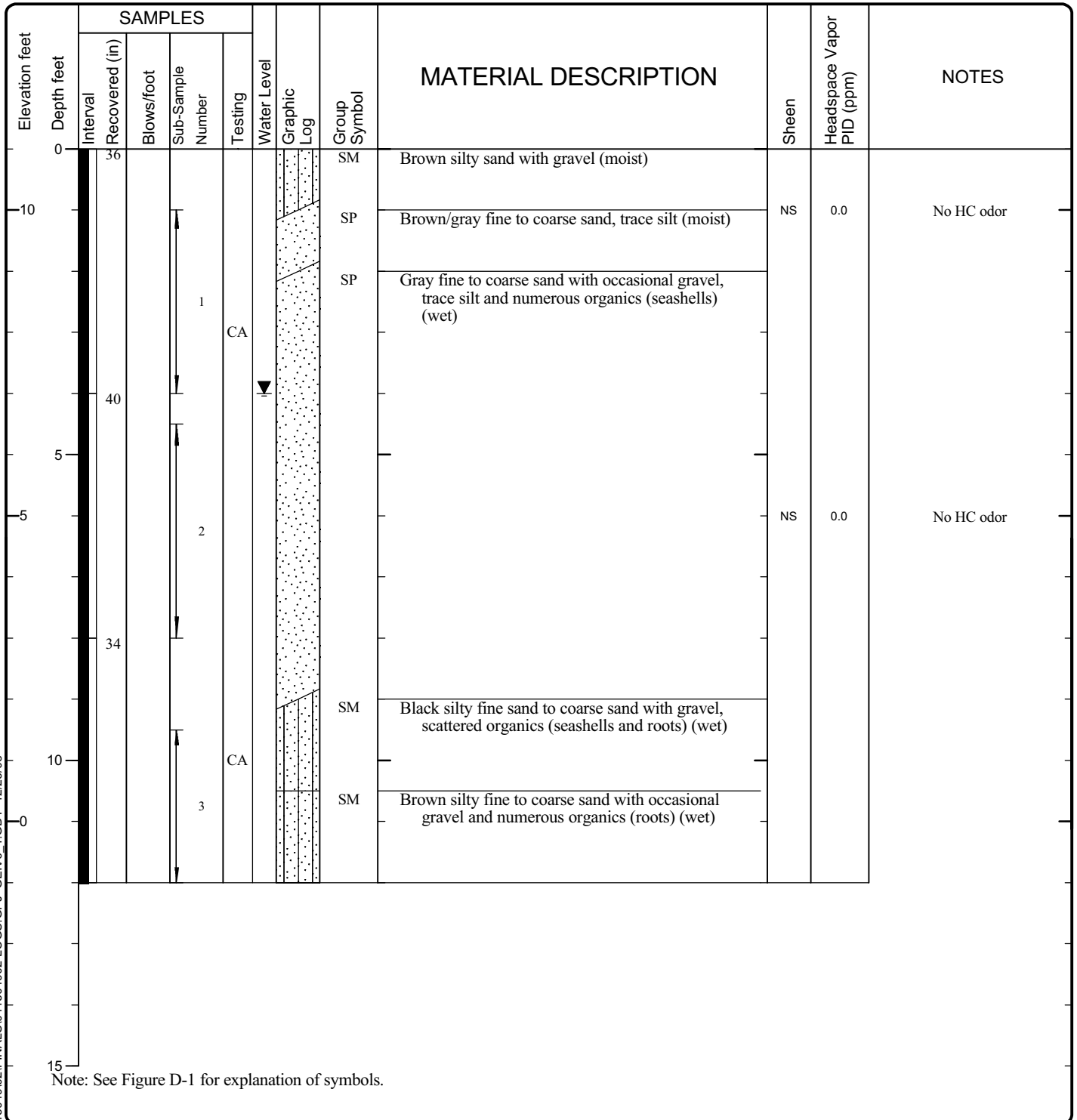
### LOG OF BORING PP-17



Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

DRAFT

Date(s) Drilled	10/30/08	Logged By	JCD	Checked By	
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Power Probe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	7
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898211 47.046292



V6 ENVBORING P:\0\0415049\02\FINALS\041504902 LOGS.GPJ GEIV6\_1.GDT 12/23/08

**LOG OF BORING PP-18**

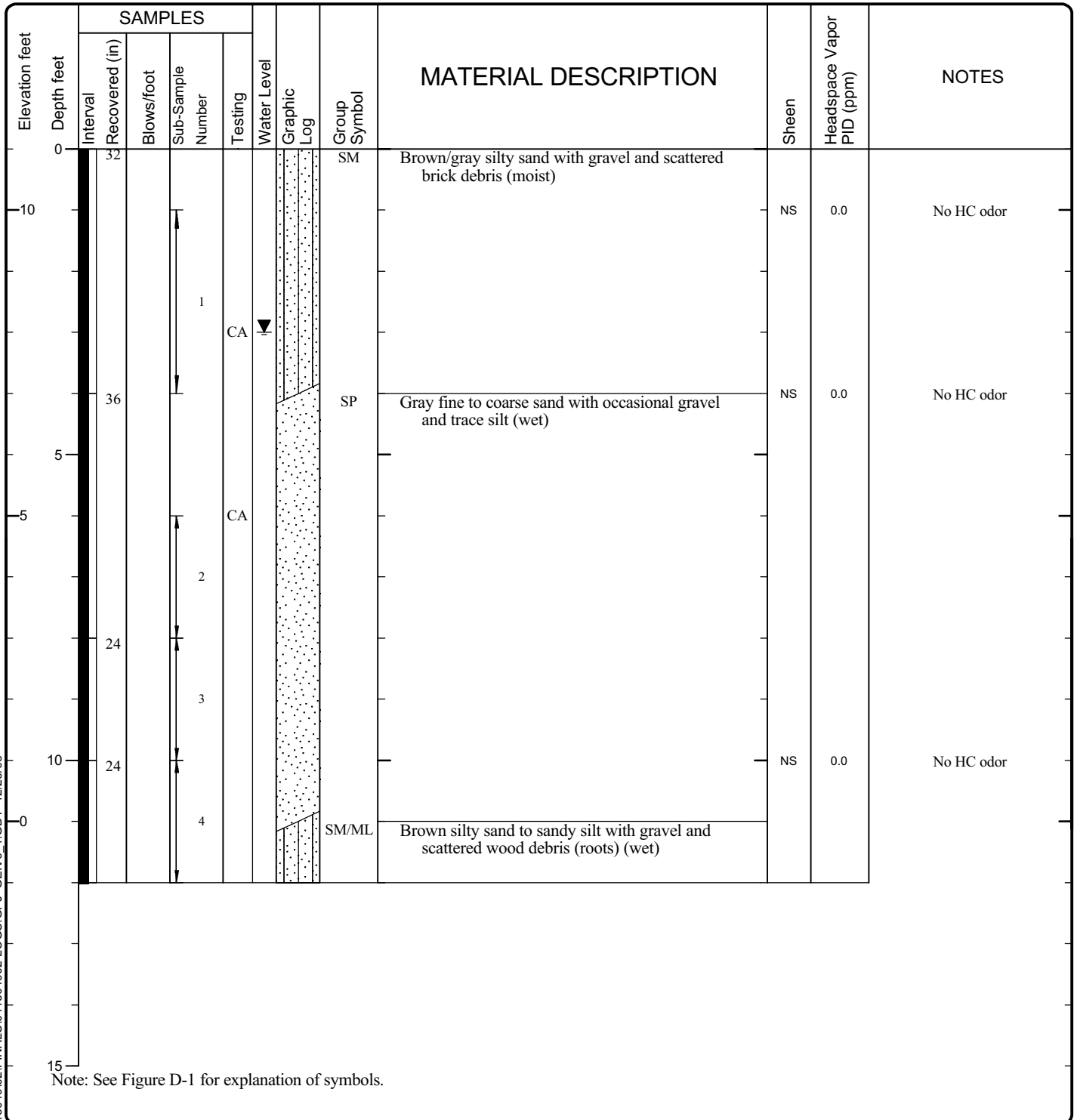


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-35  
Sheet 1 of 1

DRAFT

Date(s) Drilled	10/30/08	Logged By	JCD	Checked By	
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Power Probe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	8
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898225 47.046396



V6 ENVBORING P:\0\0415049\02\FINALS\041504902 LOGS.GPJ GEIV6\_1.GDT 12/23/08

**LOG OF BORING PP-19**

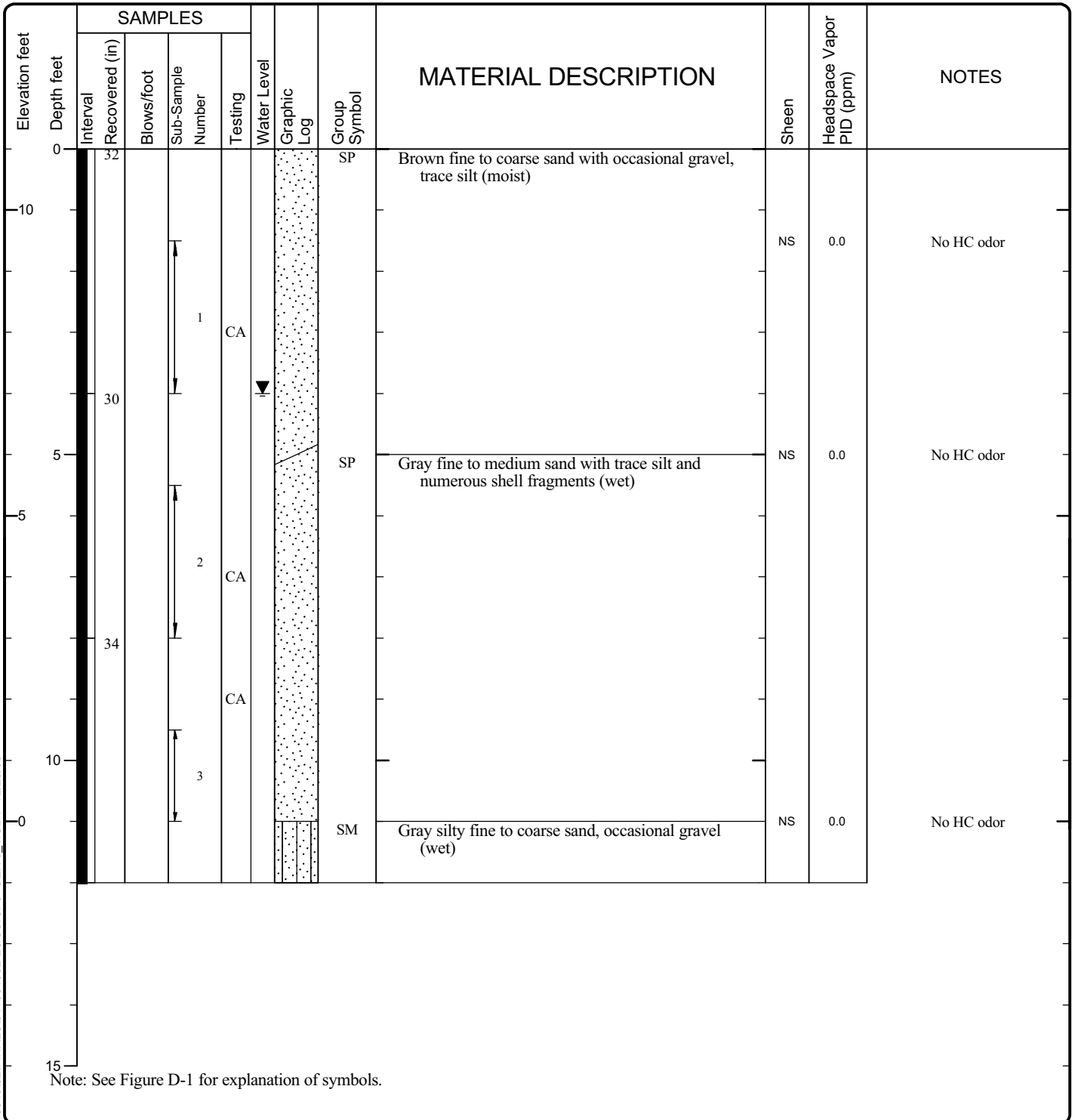


Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-36  
Sheet 1 of 1

DRAFT

Date(s) Drilled	10/30/08	Logged By	JCD	Checked By	
Drilling Contractor	ESN	Drilling Method	Direct Push (DP)	Sampling Methods	DP with hollow-stem auger (HSA) overdrill
Auger Data	4-1/4-inch ID; 5-inch OD	Hammer Data	Direct Push	Drilling Equipment	Power Probe
Total Depth (ft)	12	Surface Elevation (ft)	11	Groundwater Elevation (ft)	7
Vertical Datum	NGVD 29	Datum/System	WGS 84	Easting(x): Northing(y):	-122.898241 47.046498



V6 ENVBORING P:\041504902\FINALS\041504902 LOGS.GPJ GEIV6 1.GDT 12/23/08

**LOG OF BORING PP-20**



Project: 318 State Avenue NE  
 Project Location: Olympia, Washington  
 Project Number: 0415-049-02

Figure D-37  
Sheet 1 of 1

***APPENDIX E***  
***CHEMICAL ANALYTICAL DATA TABLES FOR SOIL AND***  
***GROUNDWATER***

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TABLE E-1  
 CHEMICAL ANALYTICAL DATA - SOIL  
 318 STATE AVENUE NE  
 OLYMPIA, WASHINGTON

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	PP01	PP01	PP02	PP03	PP04	PP05	PP06	PP07	PP08	PP09	PP09	PP09	PP10	PP10	PP11		
			Sample Number	2-6	4-10	3-6	2-6	3-6	3-10	2-6	2-6	3-6	060915-020	060915-060	060915-080	060915-020	060915-060	060915-020		
			Date of Collection	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/20/2006	7/19/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006
			Depth Interval	6-6.5	10-10.5	6-6.5	6-6.5	6-6.5	10-10.5	6-6.5	6-6.5	6-6.5	6-6.5	2-4	6-8	8-10	2-4	6-8	2-4	
<b>Metals (mg/kg)</b>																				
Arsenic	20	0.67		<b>3.78</b>	<b>3.77</b>	<b>1.92</b>	<b>2.74</b>	<b>2.44</b>	<b>2.04</b>	<b>1.73</b>	<b>1.72</b>	<b>1.62</b>	<b>6</b>	<b>5</b>	<b>5.4</b>	<b>4.1</b>	<b>7.2</b>	<b>3.3</b>		
Barium	NC	16,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Cadmium	NC	40		0.6 U	0.657 U	0.607 U	0.524 U	0.355 U	0.57 U	0.416 U	0.486 U	0.561 U	0.25 U	0.29 U	0.29 U	0.25 U	0.48 U	0.24 U		
Chromium	NC	NC		<b>22.9</b>	<b>33.8</b>	<b>18.8</b>	<b>25.7</b>	<b>24.7</b>	<b>25.1</b>	<b>16.5</b>	<b>22.5</b>	<b>20.5</b>	<b>18</b>	<b>24</b>	<b>27</b>	<b>26</b>	<b>36</b>	<b>15</b>		
Chromium, Hexavalent	19	240		1.3 U	--	--	1.1 U	1.1 U	1.1 U	--	1.1 U	1.2 U	--	--	--	--	--	--		
Lead	250	NC		<b>124</b>	<b>2.2</b>	<b>3.76</b>	<b>9.43</b>	<b>14.3</b>	<b>27.1</b>	<b>1.59</b>	<b>3.2</b>	<b>1.47</b>	<b>68</b>	<b>6.7</b>	<b>4.8</b>	<b>44</b>	<b>6.6</b>	<b>8.3</b>		
Mercury	2	24		<b>2.3</b>	0.541 U	0.456 U	0.472 U	0.485 U	0.42 U	0.461 U	0.405 U	0.492 U	<b>0.2 B</b>	<b>0.084 B</b>	<b>0.02 J</b>	<b>0.069 B</b>	0.039 U	<b>0.018 B</b>		
Selenium	NC	400		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Silver	NC	400		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
<b>Volatile Organic Compounds (µg/kg)</b>																				
1,1,1,2-Tetrachloroethane	NC	38,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
1,1,1-Trichloroethane	2,000	72,000,000		--	--	2.11 U	--	--	--	1.15 U	--	2.48 U	--	--	--	--	--	--		
1,1,2,2-Tetrachloroethane	NC	5,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
1,1,2-Trichloroethane	NC	18,000		--	--	1.06 U	--	--	--	0.576 U	--	1.24 U	--	--	--	--	--	--		
1,1-Dichloroethane	NC	8,000,000		--	--	1.69 U	--	--	--	0.922 U	--	1.98 U	--	--	--	--	--	--		
1,1-Dichloroethene	NC	4,000,000		--	--	2.54 U	--	--	--	1.38 U	--	2.97 U	--	--	--	--	--	--		
1,1-Dichloropropene	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
1,2,3-Trichlorobenzene	NC	NC		--	--	8.46 U	--	--	--	4.61 U	--	9.92 U	--	--	--	--	--	--		
1,2,3-Trichloropropane	NC	140		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
1,2,4-Trichlorobenzene	NC	800,000		--	--	8.46 U	--	--	--	4.61 U	--	9.92 U	--	--	--	--	--	--		
1,2,4-Trimethylbenzene	NC	4,000,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
1,2-Dibromo-3-Chloropropane	NC	710		--	--	8.46 U	--	--	--	4.61 U	--	9.92 U	--	--	--	--	--	--		
1,2-Dichlorobenzene	NC	7,200,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
1,2-Dichloroethane	NC	11,000		--	--	1.06 U	--	--	--	0.576 U	--	1.24 U	--	--	--	--	--	--		
1,2-Dichloropropane	NC	15,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
1,3,5-Trimethylbenzene	NC	4,000,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
1,3-Dichlorobenzene	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
1,3-Dichloropropane	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
1,4-Dichlorobenzene	NC	42,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
2,2-Dichloropropane	NC	NC		--	--	8.46 U	--	--	--	4.61 U	--	9.92 U	--	--	--	--	--	--		
2-Butanone	NC	48,000,000		--	--	12.7 U	--	--	--	6.92 U	--	14.9 U	--	--	--	--	--	--		
2-Chlorotoluene	NC	1,600,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
2-Hexanone	NC	NC		--	--	16.9 U	--	--	--	9.22 U	--	19.8 U	--	--	--	--	--	--		
4-Chlorotoluene	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
Acetone	NC	8,000,000		--	--	25.4 U	--	--	--	13.8 U	--	29.7 U	--	--	--	--	--	--		
Benzene	30	18,000		--	--	1.27 U	--	--	--	0.692 U	--	1.49 U	--	--	--	--	--	--		
Bromobenzene	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
Bromochloromethane	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		
Bromoform	NC	130,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--		

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	PP01	PP01	PP02	PP03	PP04	PP05	PP06	PP07	PP08	PP09	PP09	PP09	PP10	PP10	PP11	
			Sample Number	2-6	4-10	3-6	2-6	3-6	3-10	2-6	2-6	3-6	060915-020	060915-060	060915-080	060915-020	060915-060	060915-020	
			Date of Collection	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/20/2006	7/19/2006	7/20/2006	7/20/2006	7/20/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006
			Depth Interval	6-6.5	10-10.5	6-6.5	6-6.5	6-6.5	10-10.5	6-6.5	6-6.5	6-6.5	2-4	6-8	8-10	2-4	6-8	2-4	
Bromomethane	NC	110,000		--	--	8.46 U R	--	--	--	4.61 U	--	9.92 U	--	--	--	--	--	--	
Carbon Disulfide	NC	8,000,000		--	--	2.54 U	--	--	--	1.38 U	--	2.97 U	--	--	--	--	--	--	
Carbon Tetrachloride	NC	7,700		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
CFC-11	NC	24,000,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
CFC-12	NC	16,000,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
Chlorobenzene	NC	1,600,000		--	--	1.69 U	--	--	--	0.922 U	--	1.98 U	--	--	--	--	--	--	
Chloroethane	NC	350,000		--	--	4.23 U R	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
Chloroform	NC	160,000		--	--	2.11 U	--	--	--	1.15 U	--	2.48 U	--	--	--	--	--	--	
Chloromethane	NC	77,000		--	--	8.46 U	--	--	--	4.61 U	--	9.92 U	--	--	--	--	--	--	
Cis-1,2-Dichloroethene	NC	800,000		--	--	2.54 U	--	--	--	1.38 U	--	2.97 U	--	--	--	--	--	--	
Cis-1,3-Dichloropropene	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
Dibromochloromethane	NC	12,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
Dibromomethane	NC	800,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
Dichlorobromomethane	NC	16,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
Ethylbenzene	6,000	8,000,000		--	--	3.38 U	--	--	--	1.84 U	--	3.97 U	--	--	--	--	--	--	
Ethylene dibromide	5	12		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
Hexachlorobutadiene	NC	13,000		--	--	8.46 UJ	--	--	--	4.61 UJ	--	9.92 UJ	--	--	--	--	--	--	
Isopropylbenzene (Cumene)	NC	8,000,000		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
Methyl isobutyl ketone	NC	6,400,000		--	--	16.9 U	--	--	--	9.22 U	--	19.8 U	--	--	--	--	--	--	
Methyl t-butyl ether	100	560,000		--	--	0.846 U	--	--	--	0.461 U	--	0.992 U	--	--	--	--	--	--	
Methylene Chloride	20	130,000		--	--	2.96 U	--	--	--	1.61 U	--	3.47 U	--	--	--	--	--	--	
Naphthalene	5,000	1,600,000		--	--	8.46 U	--	--	--	4.61 U	--	9.92 U	--	--	--	--	--	--	
n-Butylbenzene	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
n-Propylbenzene	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
p-Isopropyltoluene	NC	NC		--	--	4.23 UJ	--	--	--	2.31 UJ	--	4.96 UJ	--	--	--	--	--	--	
Sec-Butylbenzene	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
Styrene	NC	33,000		--	--	0.846 U	--	--	--	0.461 U	--	0.992 U	--	--	--	--	--	--	
Tert-Butylbenzene	NC	NC		--	--	4.23 U	--	--	--	2.31 U	--	4.96 U	--	--	--	--	--	--	
Tetrachloroethene	50	1,900		--	--	1.69 U	--	--	--	0.922 U	--	1.98 U	--	--	--	--	--	--	
Toluene	7,000	6,400,000		--	--	1.27 U	--	--	--	0.692 U	--	1.49 U	--	--	--	--	--	--	
Total Xylenes	9,000	16,000,000		--	--	8.46 U	--	--	--	4.61 U	--	9.92 U	--	--	--	--	--	--	
Trans-1,2-Dichloroethene	NC	1,600,000		--	--	2.11 U	--	--	--	1.15 U	--	2.48 U	--	--	--	--	--	--	
Trans-1,3-Dichloropropene	NC	NC		--	--	1.06 U	--	--	--	0.576 U	--	1.24 U	--	--	--	--	--	--	
Trichloroethene	30	2,500		--	--	2.11 U	--	--	--	1.15 U	--	2.48 U	--	--	--	--	--	--	
Vinyl Chloride	NC	670		--	--	2.11 U	--	--	--	1.15 U	--	2.48 U	--	--	--	--	--	--	
<b>Semi-Volatile Organic Compounds (µg/kg)</b>																			
1,2,4-Trichlorobenzene	NC	800,000		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
1,2-Dichlorobenzene	NC	7,200,000		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
1,3-Dichlorobenzene	NC	NC		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
1,3-Dinitrobenzene	NC	8,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,4-Dichlorobenzene	NC	42,000		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
1,4-Dinitro-Benzene	NC	32,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	PP01	PP01	PP02	PP03	PP04	PP05	PP06	PP07	PP08	PP09	PP09	PP09	PP10	PP10	PP11	
			Sample Number	2-6	4-10	3-6	2-6	3-6	3-10	2-6	2-6	3-6	060915-020	060915-060	060915-080	060915-020	060915-060	060915-020	
			Date of Collection	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/20/2006	7/19/2006	7/20/2006	7/20/2006	7/20/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006
			Depth Interval	6-6.5	10-10.5	6-6.5	6-6.5	6-6.5	10-10.5	6-6.5	6-6.5	6-6.5	2-4	6-8	8-10	2-4	6-8	2-4	
2,2'-Oxybis[1-chloropropane]	NC	14,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
2,3,4,6-Tetrachlorophenol	NC	2,400,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,3,5,6-Tetrachlorophenol	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4,5-Trichlorophenol	NC	8,000,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
2,4,6-Trichlorophenol	NC	91,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
2,4-Dichlorophenol	NC	240,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
2,4-Dimethylphenol	NC	1,600,000		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
2,4-Dinitrophenol	NC	160,000		--	--	3,820 U	--	--	2,170 U	2,410 U	2,850 U	2,670 U	--	--	--	--	--	--	
2,4-Dinitrotoluene	NC	160,000		--	--	954 U	--	--	542 U	602 U	713 U	668 U	--	--	--	--	--	--	
2,6-Dinitrotoluene	NC	80,000		--	--	954 U	--	--	542 U	602 U	713 U	668 U	--	--	--	--	--	--	
2-Chloronaphthalene	NC	6,400,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
2-Chlorophenol	NC	400,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
2-Nitroaniline	NC	NC		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
2-Nitrophenol	NC	NC		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
3,3'-Dichlorobenzidine	NC	2,200		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
4,6-Dinitro-2-Methylphenol	NC	NC		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
4-Bromophenyl phenyl ether	NC	NC		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
4-Chloro-3-Methylphenol	NC	NC		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
4-Chloroaniline	NC	320,000		--	--	3,820 U	--	--	2,170 U	2,410 U	2,850 U	2,670 U	--	--	--	--	--	--	
4-Chlorophenyl-Phenylether	NC	NC		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
4-Nitroaniline	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Nitrophenol	NC	NC		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
Aniline	NC	180,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzoic Acid	NC	320,000,000		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
Benzyl Alcohol	NC	24,000,000		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
Bis(2-Chloroethoxy)Methane	NC	NC		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
Bis(2-Chloroethyl)Ether	NC	910		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bis(2-chloroisopropyl) ether	NC	3,200,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bis(2-Ethylhexyl) Phthalate	NC	71,000		--	--	3,820 U	--	--	2,170 U	2,410 U	2,850 U	2,670 U	--	--	--	--	--	--	
Butyl benzyl phthalate	NC	16,000,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
Carbazole	NC	50,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dibenzofuran	NC	160,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
Dibutyl phthalate	NC	8,000,000		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
Diethyl phthalate	NC	64,000,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
Dimethyl phthalate	NC	80,000,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
Di-N-Octyl Phthalate	NC	1,600,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
Hexachlorobenzene	NC	630		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
Hexachlorobutadiene	NC	13,000		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
Hexachlorocyclopentadiene	NC	480,000		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
Hexachloroethane	NC	71,000		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	NC	830,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Isophorone	NC	1,100,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	



Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	PP01	PP01	PP02	PP03	PP04	PP05	PP06	PP07	PP08	PP09	PP09	PP09	PP10	PP10	PP11	
			Sample Number	2-6	4-10	3-6	2-6	3-6	3-10	2-6	2-6	3-6	060915-020	060915-060	060915-080	060915-020	060915-060	060915-020	
			Date of Collection	7/19/2006	7/19/2006	7/19/2006	7/19/2006	7/20/2006	7/19/2006	7/20/2006	7/20/2006	7/20/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/15/2006
			Depth Interval	6-6.5	10-10.5	6-6.5	6-6.5	6-6.5	10-10.5	6-6.5	6-6.5	6-6.5	2-4	6-8	8-10	2-4	6-8	2-4	
m-Nitroaniline	NC	NC		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
Naphthalene	5,000	1,600,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
Nitrobenzene	NC	40,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
N-Nitrosodi-n-propylamine	NC	140		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
N-Nitrosodiphenylamine	NC	200,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
o-Cresol	NC	4,000,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
p-Cresol	NC	400,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pentachlorophenol	NC	8,300		--	--	1,910 U	--	--	1,080 U	1,200 U	1,430 U	1,340 U	--	--	--	--	--	--	
Phenol	NC	48,000,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
Phenol, 3,4-dimethyl	NC	80,000		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
Pyridine	NC	80,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Quinoline, 4-nitro-, 1-oxid	NC	NC		--	--	630 U	--	--	358 U	397 U	470 U	441 U	--	--	--	--	--	--	
<b>Polycyclic Aromatic Hydrocarbons (µg/kg)</b>																			
1-Methylnaphthalene	NC	24,000		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
2-Methylnaphthalene	NC	320,000		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Acenaphthene	NC	4,800,000		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Acenaphthylene	NC	NC		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Anthracene	NC	24,000,000		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Benz[a]anthracene <sup>2</sup>	NC	NC		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Benzo(a)pyrene <sup>2</sup>	100	140		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	<b>12.6 J</b>	--	--	--	--	--	--	
Benzo(b)fluoranthene <sup>2</sup>	NC	NC		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Benzo(ghi)perylene	NC	NC		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Benzo(k)fluoranthene <sup>2</sup>	NC	NC		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Chrysene <sup>2</sup>	NC	NC		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	<b>12.6 J</b>	--	--	--	--	--	--	
Dibenzo(a,h)anthracene <sup>2</sup>	NC	NC		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Fluoranthene	NC	3,200,000		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	<b>23 J</b>	<b>15 J</b>	--	--	--	--	--	--	
Fluorene	NC	3,200,000		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Indeno(1,2,3-cd)pyrene <sup>2</sup>	NC	NC		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Naphthalene	5,000	1,600,000		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
Phenanthrene	NC	NC		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	<b>35.2 J</b>	11.8 UJ	--	--	--	--	--	--	
Pyrene	NC	2,400,000		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	11.8 UJ	--	--	--	--	--	--	
<b>cPAH Toxic Equivalency<sup>3</sup> (µg/kg)</b>	100	140		--	--	11.2 UJ	--	--	109 UJ	11.9 UJ	10.9 UJ	<b>13</b>	--	--	--	--	--	--	
<b>Total Petroleum Hydrocarbons (mg/kg)</b>																			
Gasoline Range Hydrocarbons	30 /100	NC		3.96 U	--	5.71 U	5.58 U	<b>4.63</b>	4.3 U	3.86 U	3.86 U	4.06 U	--	--	--	--	--	--	
Diesel Range Hydrocarbons	2,000	NC		<b>21.5 UJ</b>	--	11.2 UJ	11.5 UJ	11.9 UJ	<b>12.1 J</b>	11.9 UJ	<b>10.9 J</b>	11.8 UJ	--	--	--	--	--	--	
Heavy Oil Range Hydrocarbons	2,000	NC		<b>206 J</b>	--	28 UJ	28.7 UJ	<b>139 J</b>	<b>150 J</b>	29.8 UJ	<b>56.9 J</b>	29.5 UJ	--	--	--	--	--	--	
<b>Polychlorinated Biphenyls (µg/kg)</b>																			
PCB-aroclor 1016	NC	5,600		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1221	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1232	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1242	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1248	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1254	NC	1,600		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1260	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	PP11	PP11	PP12	PP12	PP13	PP13	PP14	PP14	PP15	PP15	PP16	PP16	PP17	PP17			
			Sample Number	060915-060	060915-080	060915-020	060915-040	060915-020	060915-060	060915-040	060915-060	060915-020	060915-060	060915-020	060915-060	060915-020	060915-060	060915-020	060915-060	
			Date of Collection	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006
			Depth Interval	6-8	8-10	2-4	4-6	2-4	6-8	4-6	6-8	2-4	6-8	2-4	6-8	2-4	6-8	2-4	6-8	2-4
<b>Metals (mg/kg)</b>																				
Arsenic	20	0.67		17	5.9	4.2	4.7	3.7	3	6.4	3	9.4	3.1	16	3	23	2.6 J			
Barium	NC	16,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Cadmium	NC	40		0.72 U	0.24 U	0.27 U	0.23 U	0.21 U	0.25 U	0.22 U	0.24 U	0.22 U	0.28 U	0.25 U	0.26 U	0.23 U	0.27 U			
Chromium	NC	NC		14	27	21	23	18	16	19	16	18	14	18	15	45	15			
Chromium, Hexavalent	19	240		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Lead	250	NC		18	6.8	8.9	14	8.3	2	4.6	1.8	86	1.4	350	2.2	840	9.2			
Mercury	2	24		0.04 J	0.039 B	0.08 B	0.058 B	0.017 U	0.018 U	0.025 B	0.018 U	0.1 B	0.022 J	0.021 U	0.017 U	0.024 B	0.023 B			
Selenium	NC	400		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Silver	NC	400		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
<b>Volatile Organic Compounds (µg/kg)</b>																				
1,1,1,2-Tetrachloroethane	NC	38,000		--	--	--	--	72 UJ	83 UJ	79 UJ	83 UJ	82 UJ	73 UJ	110 UJ	81 UJ	92 UJ	79 UJ			
1,1,1-Trichloroethane	2,000	72,000,000		--	--	--	--	29 U	33 U	32 U	33 U	33 U	29 U	43 U	32 U	37 U	31 U			
1,1,2,2-Tetrachloroethane	NC	5,000		--	--	--	--	14 U	17 U	16 U	17 U	16 U	15 U	21 U	16 U	18 U	16 U			
1,1,2-Trichloroethane	NC	18,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,1-Dichloroethane	NC	8,000,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,1-Dichloroethene	NC	4,000,000		--	--	--	--	29 U	33 U	32 U	33 U	33 U	29 U	43 U	32 U	37 U	31 U			
1,1-Dichloropropene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,2,3-Trichlorobenzene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,2,3-Trichloropropane	NC	140		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,2,4-Trichlorobenzene	NC	800,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,2,4-Trimethylbenzene	NC	4,000,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,2-Dibromo-3-Chloropropane	NC	710		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,2-Dichlorobenzene	NC	7,200,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,2-Dichloroethane	NC	11,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,2-Dichloropropane	NC	15,000		--	--	--	--	14 U	17 U	16 U	17 U	16 U	15 U	21 U	16 U	18 U	16 U			
1,3,5-Trimethylbenzene	NC	4,000,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,3-Dichlorobenzene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
1,3-Dichloropropane	NC	NC		--	--	--	--	29 U	33 U	32 U	33 U	33 U	29 U	43 U	32 U	37 U	31 U			
1,4-Dichlorobenzene	NC	42,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
2,2-Dichloropropane	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
2-Butanone	NC	48,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
2-Chlorotoluene	NC	1,600,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
2-Hexanone	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
4-Chlorotoluene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Acetone	NC	8,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Benzene	30	18,000		--	--	--	--	14 U	17 U	16 U	17 U	16 U	15 U	21 U	16 U	18 U	16 U			
Bromobenzene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Bromochloromethane	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Bromoform	NC	130,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	PP11	PP11	PP12	PP12	PP13	PP13	PP14	PP14	PP15	PP15	PP16	PP16	PP17	PP17			
			Sample Number	060915-060	060915-080	060915-020	060915-040	060915-020	060915-060	060915-040	060915-060	060915-020	060915-060	060915-020	060915-060	060915-020	060915-060	060915-020	060915-060	
			Date of Collection	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006
			Depth Interval	6-8	8-10	2-4	4-6	2-4	6-8	4-6	6-8	2-4	6-8	2-4	6-8	2-4	6-8	2-4	6-8	
Bromomethane	NC	110,000		--	--	--	--	360 UJ	410 UJ	400 UJ	410 UJ	410 UJ	360 UJ	530 UJ	410 UJ	460 UJ	390 UJ			
Carbon Disulfide	NC	8,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Carbon Tetrachloride	NC	7,700		--	--	--	--	29 U	33 U	32 U	33 U	<b>66</b>	29 U	43 U	32 U	37 U	31 U			
CFC-11	NC	24,000,000		--	--	--	--	72 U	<b>15 J</b>	79 U	<b>31 J</b>	82 U	<b>19 J</b>	110 U	81 U	92 U	79 U			
CFC-12	NC	16,000,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Chlorobenzene	NC	1,600,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Chloroethane	NC	350,000		--	--	--	--	360 UJ	410 UJ	400 UJ	410 UJ	410 UJ	360 UJ	530 UJ	410 UJ	460 UJ	390 UJ			
Chloroform	NC	160,000		--	--	--	--	72 U	83 U	79 U	83 U	<b>140</b>	73 U	110 U	81 U	92 U	79 U			
Chloromethane	NC	77,000		--	--	--	--	72 U	83 U	79 U	<b>16 J</b>	82 U	<b>35 J</b>	110 U	81 U	92 U	79 U			
Cis-1,2-Dichloroethene	NC	800,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Cis-1,3-Dichloropropene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Dibromochloromethane	NC	12,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Dibromomethane	NC	800,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Dichlorobromomethane	NC	16,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Ethylbenzene	6,000	8,000,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Ethylene dibromide	5	12		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Hexachlorobutadiene	NC	13,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Isopropylbenzene (Cumene)	NC	8,000,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Methyl isobutyl ketone	NC	6,400,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Methyl t-butyl ether	100	560,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Methylene Chloride	20	130,000		--	--	--	--	72 U	83 U	79 U	<b>21 J</b>	82 U	73 U	110 U	81 U	92 U	79 U			
Naphthalene	5,000	1,600,000		--	--	--	--	72 U	83 U	79 U	83 U	<b>13 J</b>	73 U	110 U	81 U	92 U	79 U			
n-Butylbenzene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
n-Propylbenzene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
p-Isopropyltoluene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Sec-Butylbenzene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Styrene	NC	33,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Tert-Butylbenzene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Tetrachloroethene	50	1,900		--	--	--	--	45 U	52 U	49 U	52 U	<b>54</b>	45 U	67 U	51 U	58 U	49 U			
Toluene	7,000	6,400,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Total Xylenes	9,000	16,000,000		--	--	--	--	144 U	166 U	158 U	166 U	164 U	146 U	220 U	162 U	184 U	158 U			
Trans-1,2-Dichloroethene	NC	1,600,000		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Trans-1,3-Dichloropropene	NC	NC		--	--	--	--	72 U	83 U	79 U	83 U	82 U	73 U	110 U	81 U	92 U	79 U			
Trichloroethene	30	2,500		--	--	--	--	29 U	33 U	<b>12 J</b>	<b>7.7 J</b>	<b>2,300</b>	29 U	<b>46</b>	<b>55</b>	<b>26 J</b>	31 U			
Vinyl Chloride	NC	670		--	--	--	--	29 U	33 U	32 U	33 U	33 U	29 U	43 U	32 U	37 U	31 U			
<b>Semi-Volatile Organic Compounds (µg/kg)</b>																				
1,2,4-Trichlorobenzene	NC	800,000		--	--	--	--	47 U	54 U	56 U	58 U	51 U	57 U	51 U	55 U	50 U	55 U			
1,2-Dichlorobenzene	NC	7,200,000		--	--	--	--	47 U	54 U	56 U	58 U	51 U	57 U	51 U	55 U	50 U	55 U			
1,3-Dichlorobenzene	NC	NC		--	--	--	--	47 U	54 U	56 U	58 U	51 U	57 U	51 U	55 U	50 U	55 U			
1,3-Dinitrobenzene	NC	8,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
1,4-Dichlorobenzene	NC	42,000		--	--	--	--	47 U	54 U	56 U	58 U	51 U	57 U	51 U	55 U	50 U	55 U			
1,4-Dinitro-Benzene	NC	32,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	PP11	PP11	PP12	PP12	PP13	PP13	PP14	PP14	PP15	PP15	PP16	PP16	PP17	PP17			
			Sample Number	060915-060	060915-080	060915-020	060915-040	060915-020	060915-060	060915-040	060915-060	060915-020	060915-060	060915-020	060915-060	060915-020	060915-060	060915-020	060915-060	
			Date of Collection	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006
			Depth Interval	6-8	8-10	2-4	4-6	2-4	6-8	4-6	6-8	2-4	6-8	2-4	6-8	2-4	6-8	2-4	6-8	
2,2'-Oxybis[1-chloropropane]	NC	14,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
2,3,4,6-Tetrachlorophenol	NC	2,400,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
2,3,5,6-Tetrachlorophenol	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
2,4,5-Trichlorophenol	NC	8,000,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
2,4,6-Trichlorophenol	NC	91,000	--	--	--	--	--	140 U	160 U	170 U	170 U	150 U	170 U	150 U	160 U	150 U	160 U			
2,4-Dichlorophenol	NC	240,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
2,4-Dimethylphenol	NC	1,600,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
2,4-Dinitrophenol	NC	160,000	--	--	--	--	--	950 U	1,100 U	1,100 U	1,200 U	1,000 U	1,100 U	1,000 U	1,100 U	990 U	1,100 U			
2,4-Dinitrotoluene	NC	160,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
2,6-Dinitrotoluene	NC	80,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
2-Chloronaphthalene	NC	6,400,000	--	--	--	--	--	19 U	21 U	22 U	23 U	20 U	23 U	20 U	22 U	20 U	22 U			
2-Chlorophenol	NC	400,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
2-Nitroaniline	NC	NC	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
2-Nitrophenol	NC	NC	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
3,3'-Dichlorobenzidine	NC	2,200	--	--	--	--	--	190 U	210 U	220 U	230 U	200 U	230 U	<b>95 J</b>	220 U	200 U	220 U			
4,6-Dinitro-2-Methylphenol	NC	NC	--	--	--	--	--	950 U	1,100 U	1,100 U	1,200 U	1,000 U	1,100 U	1,000 U	1,100 U	990 U	1,100 U			
4-Bromophenyl phenyl ether	NC	NC	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
4-Chloro-3-Methylphenol	NC	NC	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
4-Chloroaniline	NC	320,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
4-Chlorophenyl-Phenylether	NC	NC	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
4-Nitroaniline	NC	NC	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
4-Nitrophenol	NC	NC	--	--	--	--	--	950 U	1,100 U	1,100 U	1,200 U	1,000 U	1,100 U	1,000 U	1,100 U	990 U	1,100 U			
Aniline	NC	180,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Benzoic Acid	NC	320,000,000	--	--	--	--	--	2,400 U	2,700 U	2,800 U	2,900 U	2,600 U	2,800 U	2,500 U	2,700 U	2,500 U	2,700 U			
Benzyl Alcohol	NC	24,000,000	--	--	--	--	--	95 U	110 U	<b>100 J</b>	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
Bis(2-Chloroethoxy)Methane	NC	NC	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
Bis(2-Chloroethyl)Ether	NC	910	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
Bis(2-chloroisopropyl) ether	NC	3,200,000	--	--	--	--	--	140 U	160 U	170 U	170 U	150 U	170 U	150 U	160 U	150 U	160 U			
Bis(2-Ethylhexyl) Phthalate	NC	71,000	--	--	--	--	--	1,400 U	1,600 U	<b>2,600</b>	1,700 U	1,500 U	1,700 U	1,500 U	1,600 U	1,500 U	1,600 U			
Butyl benzyl phthalate	NC	16,000,000	--	--	--	--	--	95 U	110 U	<b>5,100</b>	<b>97 J</b>	100 U	110 U	100 U	110 U	99 U	110 U			
Carbazole	NC	50,000	--	--	--	--	--	140 U	160 U	170 U	170 U	<b>41 J</b>	170 U	150 U	160 U	150 U	160 U			
Dibenzofuran	NC	160,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
Dibutyl phthalate	NC	8,000,000	--	--	--	--	--	190 U	210 U	220 U	230 U	200 U	230 U	200 U	220 U	200 U	220 U			
Diethyl phthalate	NC	64,000,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	<b>12 J</b>	110 U			
Dimethyl phthalate	NC	80,000,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
Di-N-Octyl Phthalate	NC	1,600,000	--	--	--	--	--	190 U	210 U	<b>160 J</b>	230 U	200 U	230 U	200 U	220 U	<b>140 J</b>	220 U			
Hexachlorobenzene	NC	630	--	--	--	--	--	47 U	54 U	56 U	58 U	51 U	57 U	51 U	55 U	50 U	55 U			
Hexachlorobutadiene	NC	13,000	--	--	--	--	--	47 U	54 U	56 U	58 U	51 U	57 U	51 U	55 U	50 U	55 U			
Hexachlorocyclopentadiene	NC	480,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
Hexachloroethane	NC	71,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	NC	830,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Isophorone	NC	1,100,000	--	--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	PP11	PP11	PP12	PP12	PP13	PP13	PP14	PP14	PP15	PP15	PP16	PP16	PP17	PP17			
			Sample Number	060915-060	060915-080	060915-020	060915-040	060915-020	060915-060	060915-040	060915-060	060915-020	060915-060	060915-020	060915-060	060915-020	060915-060	060915-020	060915-060	
			Date of Collection	9/15/2006	9/15/2006	9/15/2006	9/15/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006	9/14/2006
			Depth Interval	6-8	8-10	2-4	4-6	2-4	6-8	4-6	6-8	2-4	6-8	2-4	6-8	2-4	6-8	2-4	6-8	2-4
m-Nitroaniline	NC	NC		--	--	--	--	95 UJ	110 UJ	110 UJ	120 UJ	100 UJ	110 UJ	100 UJ	110 UJ	99 UJ	110 UJ			
Naphthalene	5,000	1,600,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Nitrobenzene	NC	40,000		--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
N-Nitrosodi-n-propylamine	NC	140		--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
N-Nitrosodiphenylamine	NC	200,000		--	--	--	--	47 U	54 U	56 U	58 U	51 U	57 U	51 U	55 U	50 U	55 U			
o-Cresol	NC	4,000,000		--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
p-Cresol	NC	400,000		--	--	--	--	190 U	210 U	220 U	230 U	200 U	230 U	200 U	220 U	200 U	220 U			
Pentachlorophenol	NC	8,300		--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
Phenol	NC	48,000,000		--	--	--	--	95 U	110 U	110 U	120 U	100 U	110 U	100 U	110 U	99 U	110 U			
Phenol, 3,4-dimethyl	NC	80,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Pyridine	NC	80,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Quinoline, 4-nitro-, 1-oxid	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
<b>Polycyclic Aromatic Hydrocarbons (µg/kg)</b>																				
1-Methylnaphthalene	NC	24,000		--	--	--	--	0.82 J	1.3 J	5.6 U	5.8 U	11	5.7 U	2.2 J	5.5 U	39	5.5 U			
2-Methylnaphthalene	NC	320,000		--	--	--	--	0.65 J	1.3 J	0.68 J	5.8 U	11	5.7 U	2.5 J	5.5 U	190	5.5 U			
Acenaphthene	NC	4,800,000		--	--	--	--	4.7 U	1.4 J	5.6 U	5.8 U	8.9	5.7 U	2.6 J	5.5 U	11	5.5 U			
Acenaphthylene	NC	NC		--	--	--	--	1.3 J	1.6 J	5.6 U	5.8 U	2.7 J	5.7 U	0.69 J	5.5 U	5 U	5.5 U			
Anthracene	NC	24,000,000		--	--	--	--	1 J	1.4 J	0.57 J	5.8 U	21	4.1 J	19	5.5 U	4.3 J	5.5 U			
Benz[a]anthracene <sup>2</sup>	NC	NC		--	--	--	--	4.7 U	3.6 J	5.6 U	1.1 J	410 B	7.9 B	790 B	2.1 J	48 B	1.2 J			
Benzo(a)pyrene <sup>2</sup>	100	140		--	--	--	--	2.3 J	3.1 J	2.5 J	5.8 U	480 B	6 B	880 B	1.3 J	38 B	0.72 J			
Benzo(b)fluoranthene <sup>2</sup>	NC	NC		--	--	--	--	5 JB	5.8 JB	6.5 JB	12 U	1,000 B	14 B	1,900 B	2.9 JB	90 B	1.4 JB			
Benzo(ghi)perylene	NC	NC		--	--	--	--	2.3 J	2.5 J	2.6 J	5.8 U	480 B	6.9 B	890 B	5.5 U	38 B	5.5 U			
Benzo(k)fluoranthene <sup>2</sup>	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Chrysene <sup>2</sup>	NC	NC		--	--	--	--	4.7 U	3.5 J	3.1 J	0.74 J	430 B	9.8 B	870 B	1.7 J	46 B	0.76 J			
Dibenzo(a,h)anthracene <sup>2</sup>	NC	NC		--	--	--	--	4.7 U	5.4 U	5.6 U	5.8 U	110	8.6	270	5.5 U	8.3	5.5 U			
Fluoranthene	NC	3,200,000		--	--	--	--	4.1 J	2.7 J	5.2 J	5.8 U	620 B	7.6 B	980 B	1.4 J	100 B	0.75 J			
Fluorene	NC	3,200,000		--	--	--	--	1.1 J	1.5 J	5.6 U	5.8 U	3 J	5.7 U	2.1 J	5.5 U	5 U	5.5 U			
Indeno(1,2,3-cd)pyrene <sup>2</sup>	NC	NC		--	--	--	--	1.9 J	2.2 J	2.1 J	5.8 U	420 B	8 B	860 B	1.6 J	29 B	5.5 U			
Naphthalene	5,000	1,600,000		--	--	--	--	0.75 J	1.4 J	0.96 J	5.8 U	12	0.87 J	6.5	5.5 U	88	5.5 U			
Phenanthrene	NC	NC		--	--	--	--	6 B	1.6 J	2.5 J	5.8 U	140 B	3.4 J	140 B	5.5 U	52 B	5.5 U			
Pyrene	NC	2,400,000		--	--	--	--	5.2 B	3.2 J	4.7 J	5.8 U	550 B	7.5 B	810 B	1.3 J	90 B	0.78 J			
<b>cPAH Toxic Equivalency<sup>3</sup> (ug/kg)</b>	100	140		--	--	--	--	3	4	3	0.1	678	10	1,271	2	56	1			
<b>Total Petroleum Hydrocarbons (mg/kg)</b>																				
Gasoline Range Hydrocarbons	30 /100	NC		--	--	--	--	7.2 U	8.3 U	7.9 U	8.3 U	8.2 U	7.3 U	11 U	8.1 U	9.2 U	7.9 U			
Diesel Range Hydrocarbons	2,000	NC		--	--	--	--	25 U	27 U	28 U	29 U	7.9 J	15 J	25 U	28 U	210	27 U			
Heavy Oil Range Hydrocarbons	2,000	NC		--	--	--	--	49 U	54 U	55 U	58 U	24 J	54 J	51 U	56 U	140	54 U			
<b>Polychlorinated Biphenyls (µg/kg)</b>																				
PCB-aroclor 1016	NC	5,600		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-aroclor 1221	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-aroclor 1232	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-aroclor 1242	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-aroclor 1248	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-aroclor 1254	NC	1,600		--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-aroclor 1260	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	TD01	TD02	TD03	TD04	TD05	TD06	TD07	TD08	TD09	TD10	TD11	MW01	MW01	MW02	
			Sample Number	TD01	TD02	TD03	TD04	TD05	TD06	TD07	TD08	TD09	TD10	TD11	032608-7	032608-10	032608-7	
			Date of Collection	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	3/26/2008	3/26/2008	3/26/2008
			Depth Interval	7-7.5	5-5.5	4-4.5	4-4.5	2-2.5	4-4.5	4-4.5	4-4.5	4-4.5	4-4.5	7-7.5	4-4.5	7-7.5	10-10.5	7-7.5
<b>Metals (mg/kg)</b>																		
Arsenic	20	0.67		<b>8.1</b>	<b>6.5</b>	2.6 U	2.8 U	<b>40</b>	2.8 U	3 U	2.9 U	<b>4.9</b>	<b>18</b>	<b>3.8</b>	3.8 U	<b>4.9</b>	11 U	
Barium	NC	16,000		--	--	--	--	--	--	--	--	--	--	--	<b>50</b>	<b>33</b>	<b>70</b>	
Cadmium	NC	40		--	--	--	--	--	--	--	--	--	--	--	0.63 U	0.61 U	1.9 U	
Chromium	NC	NC		--	--	--	--	--	--	--	--	--	--	--	<b>18</b>	<b>19</b>	<b>14</b>	
Chromium, Hexavalent	19	240		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Lead	250	NC		<b>26</b>	<b>3.8</b>	<b>16</b>	1.4 U	<b>38</b>	<b>2.8</b>	1.5 U	<b>2.2</b>	<b>33</b>	<b>41</b>	<b>13</b>	<b>38</b>	<b>2.5</b>	<b>18</b>	
Mercury	2	24		--	--	--	--	--	--	--	--	--	--	--	<b>0.39</b>	<b>0.024</b>	<b>0.095</b>	
Selenium	NC	400		--	--	--	--	--	--	--	--	--	--	--	6.3 U	6.1 U	19 U	
Silver	NC	400		--	--	--	--	--	--	--	--	--	--	--	<b>2.1</b>	1.2 U	3.8 U	
<b>Volatile Organic Compounds (µg/kg)</b>																		
1,1,1,2-Tetrachloroethane	NC	38,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,1,1-Trichloroethane	2,000	72,000,000		39 U	21 U	15 U	16 U	21 U	18 U	17 U	19 U	21 U	66 U	18 U	17 U	21 U	110 U	
1,1,2,2-Tetrachloroethane	NC	5,000		19 U	10 U	7.5 U	7.9 U	10 U	9 U	8.6 U	9.3 U	11 U	33 U	8.8 U	8.3 U	10 U	55 U	
1,1,2-Trichloroethane	NC	18,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,1-Dichloroethane	NC	8,000,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,1-Dichloroethene	NC	4,000,000		39 U	21 U	15 U	16 U	21 U	18 U	17 U	19 U	21 U	66 U	18 U	17 U	21 U	110 U	
1,1-Dichloropropene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,2,3-Trichlorobenzene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,2,3-Trichloropropane	NC	140		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,2,4-Trichlorobenzene	NC	800,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,2,4-Trimethylbenzene	NC	4,000,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,2-Dibromo-3-Chloropropane	NC	710		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,2-Dichlorobenzene	NC	7,200,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,2-Dichloroethane	NC	11,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,2-Dichloropropane	NC	15,000		19 U	10 U	7.5 U	7.9 U	10 U	9 U	8.6 U	9.3 U	11 U	33 U	8.8 U	<b>3.2 J</b>	10 U	55 U	
1,3,5-Trimethylbenzene	NC	4,000,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,3-Dichlorobenzene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
1,3-Dichloropropane	NC	NC		39 U	21 U	15 U	16 U	21 U	18 U	17 U	19 U	21 U	66 U	18 U	17 U	21 U	110 U	
1,4-Dichlorobenzene	NC	42,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
2,2-Dichloropropane	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
2-Butanone	NC	48,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Chlorotoluene	NC	1,600,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
2-Hexanone	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Chlorotoluene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Acetone	NC	8,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzene	30	18,000		19 U	10 U	7.5 U	7.9 U	10 U	9 U	8.6 U	<b>11</b>	11 U	<b>150</b>	<b>8.9</b>	8.3 U	10 U	<b>1,000</b>	
Bromobenzene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Bromochloromethane	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Bromoform	NC	130,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	TD01	TD02	TD03	TD04	TD05	TD06	TD07	TD08	TD09	TD10	TD11	MW01	MW01	MW02	
			Sample Number	TD01	TD02	TD03	TD04	TD05	TD06	TD07	TD08	TD09	TD10	TD11	032608-7	032608-10	032608-7	
			Date of Collection	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	3/26/2008	3/26/2008	3/26/2008
			Depth Interval	7-7.5	5-5.5	4-4.5	4-4.5	2-2.5	4-4.5	4-4.5	4-4.5	4-4.5	4-4.5	7-7.5	4-4.5	7-7.5	10-10.5	7-7.5
Bromomethane	NC	110,000		480 U	260 U	190 U	200 U	260 U	220 U	210 U	230 U	270 U	830 U	220 U	210 U	260 U	1,400 U	
Carbon Disulfide	NC	8,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Carbon Tetrachloride	NC	7,700		39 U	21 U	15 U	16 U	21 U	18 U	17 U	19 U	21 U	66 U	18 U	17 U	21 U	110 U	
CFC-11	NC	24,000,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
CFC-12	NC	16,000,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Chlorobenzene	NC	1,600,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Chloroethane	NC	350,000		480 UJ	260 UJ	190 UJ	200 UJ	260 UJ	220 UJ	210 UJ	230 UJ	270 UJ	830 UJ	220 UJ	210 U	260 U	1,400 U	
Chloroform	NC	160,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Chloromethane	NC	77,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Cis-1,2-Dichloroethene	NC	800,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	<b>180</b>	44 U	42 U	52 U	<b>920</b>	
Cis-1,3-Dichloropropene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Dibromochloromethane	NC	12,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Dibromomethane	NC	800,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Dichlorobromomethane	NC	16,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Ethylbenzene	6,000	8,000,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Ethylene dibromide	5	12		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Hexachlorobutadiene	NC	13,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Isopropylbenzene (Cumene)	NC	8,000,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Methyl isobutyl ketone	NC	6,400,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Methyl t-butyl ether	100	560,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Methylene Chloride	20	130,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	<b>66 B</b>	<b>10 J</b>	<b>82 J</b>	
Naphthalene	5,000	1,600,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
n-Butylbenzene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
n-Propylbenzene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
p-Isopropyltoluene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	<b>32 J</b>	
Sec-Butylbenzene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	<b>25 J</b>	
Styrene	NC	33,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Tert-Butylbenzene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Tetrachloroethene	50	1,900		60 U	32 U	23 U	25 U	32 U	28 U	27 U	29 U	<b>66</b>	100 U	27 U	26 U	33 U	170 U	
Toluene	7,000	6,400,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	<b>84 J</b>	
Total Xylenes	9,000	16,000,000		192 U	104 U	74 U	80 U	102 U	90 U	86 U	92 U	106 U	340 U	88 U	84 U	104 U	540 U	
Trans-1,2-Dichloroethene	NC	1,600,000		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	<b>550</b>	
Trans-1,3-Dichloropropene	NC	NC		96 U	52 U	37 U	40 U	51 U	45 U	43 U	46 U	53 U	170 U	44 U	42 U	52 U	270 U	
Trichloroethene	30	2,500		39 U	21 U	<b>230</b>	16 U	21 U	18 U	17 U	<b>82</b>	<b>600</b>	66 U	18 U	17 U	21 U	<b>900</b>	
Vinyl Chloride	NC	670		39 U	21 U	15 U	16 U	21 U	18 U	17 U	19 U	21 U	66 U	18 U	17 U	21 U	<b>330</b>	
<b>Semi-Volatile Organic Compounds (µg/kg)</b>																		
1,2,4-Trichlorobenzene	NC	800,000		--	--	--	--	--	--	--	--	--	--	--	60 U	58 U	190 U	
1,2-Dichlorobenzene	NC	7,200,000		--	--	--	--	--	--	--	--	--	--	--	60 U	58 U	190 U	
1,3-Dichlorobenzene	NC	NC		--	--	--	--	--	--	--	--	--	--	--	60 U	58 U	190 U	
1,3-Dinitrobenzene	NC	8,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,4-Dichlorobenzene	NC	42,000		--	--	--	--	--	--	--	--	--	--	--	60 U	58 U	190 U	
1,4-Dinitro-Benzene	NC	32,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	TD01	TD02	TD03	TD04	TD05	TD06	TD07	TD08	TD09	TD10	TD11	MW01	MW01	MW02	
			Sample Number	TD01	TD02	TD03	TD04	TD05	TD06	TD07	TD08	TD09	TD10	TD11	032608-7	032608-10	032608-7	
			Date of Collection	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	3/26/2008	3/26/2008	3/26/2008
			Depth Interval	7-7.5	5-5.5	4-4.5	4-4.5	2-2.5	4-4.5	4-4.5	4-4.5	4-4.5	4-4.5	7-7.5	4-4.5	7-7.5	10-10.5	7-7.5
2,2'-Oxybis[1-chloropropane]	NC	14,000	--	--	--	--	--	--	--	--	--	--	--	--	180 U	180 U	560 U	
2,3,4,6-Tetrachlorophenol	NC	2,400,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,3,5,6-Tetrachlorophenol	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4,5-Trichlorophenol	NC	8,000,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
2,4,6-Trichlorophenol	NC	91,000	--	--	--	--	--	--	--	--	--	--	--	--	180 U	180 U	560 U	
2,4-Dichlorophenol	NC	240,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
2,4-Dimethylphenol	NC	1,600,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
2,4-Dinitrophenol	NC	160,000	--	--	--	--	--	--	--	--	--	--	--	--	1,200 U	1,200 U	3,700 U	
2,4-Dinitrotoluene	NC	160,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
2,6-Dinitrotoluene	NC	80,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
2-Chloronaphthalene	NC	6,400,000	--	--	--	--	--	--	--	--	--	--	--	--	24 U	23 U	74 U	
2-Chlorophenol	NC	400,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
2-Nitroaniline	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
2-Nitrophenol	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
3,3'-Dichlorobenzidine	NC	2,200	--	--	--	--	--	--	--	--	--	--	--	--	240 U	230 U	740 U	
4,6-Dinitro-2-Methylphenol	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	1,200 U	1,200 U	3,700 U	
4-Bromophenyl phenyl ether	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
4-Chloro-3-Methylphenol	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
4-Chloroaniline	NC	320,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
4-Chlorophenyl-Phenylether	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
4-Nitroaniline	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
4-Nitrophenol	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	1,200 U	1,200 U	3,700 U	
Aniline	NC	180,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzoic Acid	NC	320,000,000	--	--	--	--	--	--	--	--	--	--	--	--	3,000 U	2,900 U	9,300 U	
Benzyl Alcohol	NC	24,000,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Bis(2-Chloroethoxy)Methane	NC	NC	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Bis(2-Chloroethyl)Ether	NC	910	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Bis(2-chloroisopropyl) ether	NC	3,200,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bis(2-Ethylhexyl) Phthalate	NC	71,000	--	--	--	--	--	--	--	--	--	--	--	--	1,800 U	1,800 U	5,600 U	
Butyl benzyl phthalate	NC	16,000,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Carbazole	NC	50,000	--	--	--	--	--	--	--	--	--	--	--	--	180 U	180 U	560 U	
Dibenzofuran	NC	160,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Dibutyl phthalate	NC	8,000,000	--	--	--	--	--	--	--	--	--	--	--	--	240 U	230 U	740 U	
Diethyl phthalate	NC	64,000,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Dimethyl phthalate	NC	80,000,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Di-N-Octyl Phthalate	NC	1,600,000	--	--	--	--	--	--	--	--	--	--	--	--	240 U	230 U	740 U	
Hexachlorobenzene	NC	630	--	--	--	--	--	--	--	--	--	--	--	--	60 U	58 U	190 U	
Hexachlorobutadiene	NC	13,000	--	--	--	--	--	--	--	--	--	--	--	--	60 U	58 U	190 U	
Hexachlorocyclopentadiene	NC	480,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Hexachloroethane	NC	71,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	NC	830,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Isophorone	NC	1,100,000	--	--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	



Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	TD01	TD02	TD03	TD04	TD05	TD06	TD07	TD08	TD09	TD10	TD11	MW01	MW01	MW02	
			Sample Number	TD01	TD02	TD03	TD04	TD05	TD06	TD07	TD08	TD09	TD10	TD11	032608-7	032608-10	032608-7	
			Date of Collection	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	10/17/2007	3/26/2008	3/26/2008	3/26/2008
			Depth Interval	7-7.5	5-5.5	4-4.5	4-4.5	2-2.5	4-4.5	4-4.5	4-4.5	4-4.5	4-4.5	7-7.5	4-4.5	7-7.5	10-10.5	7-7.5
m-Nitroaniline	NC	NC		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Naphthalene	5,000	1,600,000		--	--	--	--	--	--	--	--	--	--	--	24 U	23 U	74 U	
Nitrobenzene	NC	40,000		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
N-Nitrosodi-n-propylamine	NC	140		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
N-Nitrosodiphenylamine	NC	200,000		--	--	--	--	--	--	--	--	--	--	--	60 U	58 U	190 U	
o-Cresol	NC	4,000,000		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
p-Cresol	NC	400,000		--	--	--	--	--	--	--	--	--	--	--	240 U	230 U	740 U	
Pentachlorophenol	NC	8,300		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Phenol	NC	48,000,000		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	370 U	
Phenol, 3,4-dimethyl	NC	80,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pyridine	NC	80,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Quinoline, 4-nitro-, 1-oxid	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Polycyclic Aromatic Hydrocarbons (µg/kg)</b>																		
1-Methylnaphthalene	NC	24,000		--	--	--	--	--	--	--	--	--	--	--	36 U	35 U	110 U	
2-Methylnaphthalene	NC	320,000		--	--	--	--	--	--	--	--	--	--	--	24 U	23 U	74 U	
Acenaphthene	NC	4,800,000		--	--	--	--	--	--	--	--	--	--	--	24 U	23 U	74 U	
Acenaphthylene	NC	NC		--	--	--	--	--	--	--	--	--	--	--	24 U	23 U	74 U	
Anthracene	NC	24,000,000		--	--	--	--	--	--	--	--	--	--	--	24 U	23 U	74 U	
Benz[a]anthracene <sup>2</sup>	NC	NC		56 U	34 U	<b>60</b>	27 U	<b>820</b>	28 U	28 U	28 U	30 U	97 U	30 U	30 U	29 U	93 U	
Benzo(a)pyrene <sup>2</sup>	100	140		68 U	41 U	<b>66</b>	33 U	<b>1,200</b>	33 U	34 U	34 U	36 U	120 U	37 U	36 U	35 U	110 U	
Benzo(b)fluoranthene <sup>2</sup>	NC	NC		<b>52</b>	27 U	<b>83</b>	22 U	<b>2,100</b>	22 U	22 U	23 U	24 U	78 U	<b>28</b>	24 U	23 U	74 U	
Benzo(ghi)perylene	NC	NC		--	--	--	--	--	--	--	--	--	--	--	30 U	29 U	93 U	
Benzo(k)fluoranthene <sup>2</sup>	NC	NC		56 U	34 U	28 U	27 U	<b>650</b>	28 U	28 U	28 U	30 U	97 U	30 U	30 U	29 U	93 U	
Chrysene <sup>2</sup>	NC	NC		56 U	34 U	<b>67</b>	27 U	<b>960</b>	28 U	28 U	28 U	30 U	97 U	<b>58</b>	30 U	29 U	93 U	
Dibenzo(a,h)anthracene <sup>2</sup>	NC	NC		90 U	55 U	44 U	43 U	<b>290</b>	44 U	45 U	45 U	48 U	160 U	49 U	48 U	47 U	150 U	
Fluoranthene	NC	3,200,000		--	--	--	--	--	--	--	--	--	--	--	24 U	23 U	74 U	
Fluorene	NC	3,200,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Indeno(1,2,3-cd)pyrene <sup>2</sup>	NC	NC		90 U	55 U	<b>61</b>	43 U	<b>1,200</b>	44 U	45 U	45 U	48 U	160 U	49 U	48 U	47 U	150 U	
Naphthalene	5,000	1,600,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phenanthrene	NC	NC		--	--	--	--	--	--	--	--	--	--	--	<b>46</b>	23 U	74 U	
Pyrene	NC	2,400,000		--	--	--	--	--	--	--	--	--	--	--	24 U	23 U	74 U	
<b>cPAH Toxic Equivalency<sup>3</sup> (ug/kg)</b>	100	140		<b>5</b>	41 U	<b>87</b>	33 U	<b>1,716</b>	33 U	34 U	34 U	36 U	120 U	<b>3</b>	36 U	35 U	110 U	
<b>Total Petroleum Hydrocarbons (mg/kg)</b>																		
Gasoline Range Hydrocarbons	30 /100	NC		--	--	--	--	--	--	--	--	--	--	--	4.2 U	5.2 U	27 U	
Diesel Range Hydrocarbons	2,000	NC		--	--	--	--	--	--	--	--	--	--	--	<b>84</b>	28 U	95 U	
Heavy Oil Range Hydrocarbons	2,000	NC		--	--	--	--	--	--	--	--	--	--	--	<b>1,100</b>	57 U	190 U	
<b>Polychlorinated Biphenyls (µg/kg)</b>																		
PCB-aroclor 1016	NC	5,600		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	400 U	
PCB-aroclor 1221	NC	NC		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	400 U	
PCB-aroclor 1232	NC	NC		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	400 U	
PCB-aroclor 1242	NC	NC		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	400 U	
PCB-aroclor 1248	NC	NC		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	400 U	
PCB-aroclor 1254	NC	1,600		--	--	--	--	--	--	--	--	--	--	--	120 U	120 U	400 U	
PCB-aroclor 1260	NC	NC		--	--	--	--	--	--	--	--	--	--	--	120 UJ	120 UJ	400 UJ	

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW02	MW03	MW03	MW04	MW04	MW05	MW05	MW06	MW06	MW07	MW07	MW08	MW08	MW09
			Sample Number	032608-10	032608-7	032608-10	032608-6	032608-9	032608-7	032608-9	032708-7	032708-10	032708-7	032708-10	032708-6	032708-9	032708-7
			Date of Collection	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008
			Depth Interval	10-10.5	7-7.5	10-10.5	6-6.5	9-9.5	7-7.5	9-9.5	7-7.5	10-10.5	7-7.5	10-10.5	6-6.5	9-9.5	7-7.5
<b>Metals (mg/kg)</b>																	
Arsenic	20	0.67		7.2	3.7 U	3.4 U	7.8	7.1	7.9	3.3 U	5.5	3.3 U	9.7	8	3.5 U	3.8 U	3.2 U
Barium	NC	16,000		40	8	6.3	44	38	25	4.9	37	10	150	69	6.3	7.3	4.8
Cadmium	NC	40		0.76 U	0.62 U	0.57 U	0.58 U	0.67 U	0.56 U	0.55 U	0.69 U	0.55 U	0.63 U	0.6 U	0.59 U	0.64 U	0.53 U
Chromium	NC	NC		24	11	11	27	26	12	8.7	15	10	36	20	10	12	8.6
Chromium, Hexavalent	19	240		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	250	NC		29	1.9 U	1.7 U	230	4.4	55	1.7 U	63	3.2	14	26	1.8 U	1.9 U	1.6 U
Mercury	2	24		0.031 U	0.025 U	0.021 U	0.075	0.049	0.09	0.021 U	0.13	0.023 U	0.025 U	0.025 U	0.023 U	0.023 U	0.022 U
Selenium	NC	400		7.6 U	6.2 U	5.7 U	5.8 U	6.7 U	5.6 U	5.5 U	6.9 U	5.5 U	6.3 U	6 U	5.9 U	6.4 U	5.3 U
Silver	NC	400		1.5 U	1.2 U	1.1 U	1.2 U	1.3 U	1.1 U	1.1 U	1.4 U	1.1 U	1.3 U	1.2 U	1.2 U	1.3 U	1.1 U
<b>Volatile Organic Compounds (µg/kg)</b>																	
1,1,1,2-Tetrachloroethane	NC	38,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,1,1-Trichloroethane	2,000	72,000,000		19 U	17 U	19 U	14 U	19 U	29 U	16 U	22 U	16 U	21 U	34 U	17 U	19 U	16 U
1,1,2,2-Tetrachloroethane	NC	5,000		9.7 U	8.5 U	9.4 U	7.1 U	9.3 U	14 U	8 U	11 U	8.2 U	11 U	17 U	8.6 U	9.3 U	7.9 U
1,1,2-Trichloroethane	NC	18,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,1-Dichloroethane	NC	8,000,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,1-Dichloroethene	NC	4,000,000		19 U	17 U	19 U	14 U	19 U	29 U	16 U	22 U	16 U	21 U	34 U	17 U	19 U	16 U
1,1-Dichloropropene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,2,3-Trichlorobenzene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,2,3-Trichloropropane	NC	140		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,2,4-Trichlorobenzene	NC	800,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,2,4-Trimethylbenzene	NC	4,000,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,2-Dibromo-3-Chloropropane	NC	710		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,2-Dichlorobenzene	NC	7,200,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,2-Dichloroethane	NC	11,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,2-Dichloropropane	NC	15,000		9.7 U	8.5 U	9.4 U	3 J	9.3 U	14 U	8 U	11 U	3.6 J	11 U	17 U	8.6 U	9.3 U	7.9 U
1,3,5-Trimethylbenzene	NC	4,000,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,3-Dichlorobenzene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
1,3-Dichloropropane	NC	NC		19 U	17 U	19 U	14 U	19 U	29 U	16 U	22 U	16 U	21 U	34 U	17 U	19 U	16 U
1,4-Dichlorobenzene	NC	42,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
2,2-Dichloropropane	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
2-Butanone	NC	48,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	NC	1,600,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
2-Hexanone	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Acetone	NC	8,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	30	18,000		9.7 U	8.5 U	9.4 U	7.1 U	9.3 U	14 U	8 U	11 U	3.9 J	70	8.9 J	8.6 U	9.3 U	7.9 U
Bromobenzene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Bromochloromethane	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Bromoform	NC	130,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW02	MW03	MW03	MW04	MW04	MW05	MW05	MW06	MW06	MW07	MW07	MW08	MW08	MW09
			Sample Number	032608-10	032608-7	032608-10	032608-6	032608-9	032608-7	032608-9	032708-7	032708-10	032708-7	032708-10	032708-6	032708-9	032708-7
			Date of Collection	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008
			Depth Interval	10-10.5	7-7.5	10-10.5	6-6.5	9-9.5	7-7.5	9-9.5	7-7.5	10-10.5	7-7.5	10-10.5	6-6.5	9-9.5	7-7.5
Bromomethane	NC	110,000		240 U	210 U	230 U	180 U	230 U	360 U	200 U	280 U	210 U	260 U	420 U	210 U	230 U	200 U
Carbon Disulfide	NC	8,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	NC	7,700		19 U	17 U	19 U	14 U	19 U	29 U	16 U	22 U	16 U	21 U	34 U	17 U	19 U	16 U
CFC-11	NC	24,000,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
CFC-12	NC	16,000,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Chlorobenzene	NC	1,600,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Chloroethane	NC	350,000		240 U	210 U	230 U	180 U	230 U	360 U	200 U	280 U	210 U	260 U	420 U	210 U	230 U	200 U
Chloroform	NC	160,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Chloromethane	NC	77,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Cis-1,2-Dichloroethene	NC	800,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	<b>170</b>	85 U	43 U	46 U	40 U
Cis-1,3-Dichloropropene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Dibromochloromethane	NC	12,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Dibromomethane	NC	800,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Dichlorobromomethane	NC	16,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Ethylbenzene	6,000	8,000,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Ethylene dibromide	5	12		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Hexachlorobutadiene	NC	13,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Isopropylbenzene (Cumene)	NC	8,000,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Methyl isobutyl ketone	NC	6,400,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl t-butyl ether	100	560,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	20	130,000		<b>23 J</b>	<b>19 J</b>	<b>14 J</b>	<b>7.8 J</b>	<b>12 J</b>	<b>15 J</b>	<b>38 J</b>	<b>53 J</b>	<b>8 J</b>	<b>14 J</b>	<b>19 J</b>	<b>11 J</b>	<b>9.2 J</b>	<b>15 J</b>
Naphthalene	5,000	1,600,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	<b>14 J</b>	43 U	46 U	40 U
n-Butylbenzene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
n-Propylbenzene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
p-Isopropyltoluene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	<b>4.9 J</b>	<b>16 J</b>	43 U	46 U	40 U
Sec-Butylbenzene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Styrene	NC	33,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Tert-Butylbenzene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Tetrachloroethene	50	1,900		30 U	27 U	29 U	22 U	29 U	45 U	25 U	35 U	26 U	33 U	<b>53 U</b>	27 U	29 U	25 U
Toluene	7,000	6,400,000		48 U	<b>9.9 J</b>	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Total Xylenes	9,000	16,000,000		96 U	86 U	94 U	72 U	92 U	144 U	80 U	112 U	82 U	106 U	170 U	86 U	92 U	80 U
Trans-1,2-Dichloroethene	NC	1,600,000		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	<b>29 J</b>	85 U	43 U	46 U	40 U
Trans-1,3-Dichloropropene	NC	NC		48 U	43 U	47 U	36 U	46 U	72 U	40 U	56 U	41 U	53 U	85 U	43 U	46 U	40 U
Trichloroethene	30	2,500		19 U	<b>4.6 J</b>	19 U	14 U	19 U	29 U	<b>13 J</b>	22 U	16 U	<b>45</b>	<b>34 U</b>	17 U	19 U	16 U
Vinyl Chloride	NC	670		19 U	17 U	19 U	14 U	19 U	29 U	16 U	22 U	16 U	<b>110</b>	<b>34 J</b>	17 U	19 U	16 U
<b>Semi-Volatile Organic Compounds (µg/kg)</b>																	
1,2,4-Trichlorobenzene	NC	800,000		78 U	62 U	58 U	58 U	65 U	57 U	53 U	66 U	58 U	61 U	62 U	57 U	60 U	52 U
1,2-Dichlorobenzene	NC	7,200,000		78 U	62 U	58 U	58 U	65 U	57 U	53 U	66 U	58 U	61 U	62 U	57 U	60 U	52 U
1,3-Dichlorobenzene	NC	NC		78 U	62 U	58 U	58 U	65 U	57 U	53 U	66 U	58 U	61 U	62 U	57 U	60 U	52 U
1,3-Dinitrobenzene	NC	8,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	NC	42,000		78 U	62 U	58 U	58 U	65 U	57 U	53 U	66 U	58 U	61 U	62 U	57 U	60 U	52 U
1,4-Dinitro-Benzene	NC	32,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW02	MW03	MW03	MW04	MW04	MW05	MW05	MW06	MW06	MW07	MW07	MW08	MW08	MW09
			Sample Number	032608-10	032608-7	032608-10	032608-6	032608-9	032608-7	032608-9	032708-7	032708-10	032708-7	032708-10	032708-6	032708-9	032708-7
			Date of Collection	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008
			Depth Interval	10-10.5	7-7.5	10-10.5	6-6.5	9-9.5	7-7.5	9-9.5	7-7.5	10-10.5	7-7.5	10-10.5	6-6.5	9-9.5	7-7.5
2,2'-Oxybis[1-chloropropane]	NC	14,000		230 U	190 U	180 U	170 U	190 U	170 U	160 U	200 U	170 U	180 U	190 U	170 U	180 U	160 U
2,3,4,6-Tetrachlorophenol	NC	2,400,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,5,6-Tetrachlorophenol	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	NC	8,000,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
2,4,6-Trichlorophenol	NC	91,000		230 U	190 U	180 U	170 U	190 U	170 U	160 U	200 U	170 U	180 U	190 U	170 U	180 U	160 U
2,4-Dichlorophenol	NC	240,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
2,4-Dimethylphenol	NC	1,600,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
2,4-Dinitrophenol	NC	160,000		1,600 U	1,200 U	1,200 U	1,200 U	1,300 U	1,100 U	1,100 U	1,300 U	1,200 U	1,200 U	1,200 U	1,100 U	1,200 U	1,000 U
2,4-Dinitrotoluene	NC	160,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
2,6-Dinitrotoluene	NC	80,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
2-Chloronaphthalene	NC	6,400,000		31 U	25 U	23 U	23 U	26 U	23 U	21 U	26 U	23 U	24 U	25 U	23 U	24 U	21 U
2-Chlorophenol	NC	400,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
2-Nitroaniline	NC	NC		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
2-Nitrophenol	NC	NC		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
3,3'-Dichlorobenzidine	NC	2,200		310 U	250 U	230 U	230 U	260 U	230 U	210 U	260 U	230 U	240 U	250 U	230 U	240 U	210 U
4,6-Dinitro-2-Methylphenol	NC	NC		1,600 U	1,200 U	1,200 U	1,200 U	1,300 U	1,100 U	1,100 U	1,300 U	1,200 U	1,200 U	1,200 U	1,100 U	1,200 U	1,000 U
4-Bromophenyl phenyl ether	NC	NC		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
4-Chloro-3-Methylphenol	NC	NC		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
4-Chloroaniline	NC	320,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
4-Chlorophenyl-Phenylether	NC	NC		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
4-Nitroaniline	NC	NC		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
4-Nitrophenol	NC	NC		1,600 U	1,200 U	1,200 U	1,200 U	1,300 U	1,100 U	1,100 U	1,300 U	1,200 U	1,200 U	1,200 U	1,100 U	1,200 U	1,000 U
Aniline	NC	180,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	NC	320,000,000		3,900 U	3,100 U	2,900 U	2,900 U	3,200 U	2,900 U	2,600 U	3,300 U	2,900 U	3,000 U	3,100 U	2,800 U	3,000 U	2,600 U
Benzyl Alcohol	NC	24,000,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Bis(2-Chloroethoxy)Methane	NC	NC		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Bis(2-Chloroethyl)Ether	NC	910		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Bis(2-chloroisopropyl) ether	NC	3,200,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	NC	71,000		2,300 U	1,900 U	1,800 U	1,700 U	1,900 U	1,700 U	1,600 U	2,000 U	1,700 U	1,800 U	<b>4,200</b>	1,700 U	1,800 U	1,600 U
Butyl benzyl phthalate	NC	16,000,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Carbazole	NC	50,000		230 U	190 U	180 U	170 U	190 U	170 U	160 U	200 U	170 U	180 U	190 U	170 U	180 U	160 U
Dibenzofuran	NC	160,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Dibutyl phthalate	NC	8,000,000		310 U	250 U	230 U	230 U	260 U	230 U	210 U	260 U	230 U	240 U	250 U	230 U	240 U	210 U
Diethyl phthalate	NC	64,000,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Dimethyl phthalate	NC	80,000,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Di-N-Octyl Phthalate	NC	1,600,000		310 U	250 U	230 U	230 U	260 U	230 U	210 U	260 U	230 U	240 U	250 U	230 U	240 U	210 U
Hexachlorobenzene	NC	630		78 U	62 U	58 U	58 U	65 U	57 U	53 U	66 U	58 U	61 U	62 U	57 U	60 U	52 U
Hexachlorobutadiene	NC	13,000		78 U	62 U	58 U	58 U	65 U	57 U	53 U	66 U	58 U	61 U	62 U	57 U	60 U	52 U
Hexachlorocyclopentadiene	NC	480,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Hexachloroethane	NC	71,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	NC	830,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	NC	1,100,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW02	MW03	MW03	MW04	MW04	MW05	MW05	MW06	MW06	MW07	MW07	MW08	MW08	MW09
			Sample Number	032608-10	032608-7	032608-10	032608-6	032608-9	032608-7	032608-9	032708-7	032708-10	032708-7	032708-10	032708-6	032708-9	032708-7
			Date of Collection	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/26/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008	3/27/2008
			Depth Interval	10-10.5	7-7.5	10-10.5	6-6.5	9-9.5	7-7.5	9-9.5	7-7.5	10-10.5	7-7.5	10-10.5	6-6.5	9-9.5	7-7.5
m-Nitroaniline	NC	NC		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Naphthalene	5,000	1,600,000		31 U	25 U	23 U	23 U	26 U	23 U	21 U	26 U	23 U	24 U	25 U	23 U	24 U	21 U
Nitrobenzene	NC	40,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
N-Nitrosodi-n-propylamine	NC	140		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
N-Nitrosodiphenylamine	NC	200,000		78 U	62 U	58 U	58 U	65 U	57 U	53 U	66 U	58 U	61 U	62 U	57 U	60 U	52 U
o-Cresol	NC	4,000,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
p-Cresol	NC	400,000		310 U	250 U	230 U	230 U	260 U	230 U	210 U	260 U	230 U	240 U	250 U	230 U	240 U	210 U
Pentachlorophenol	NC	8,300		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Phenol	NC	48,000,000		160 U	120 U	120 U	120 U	130 U	110 U	110 U	130 U	120 U	120 U	120 U	110 U	120 U	100 U
Phenol, 3,4-dimethyl	NC	80,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyridine	NC	80,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Quinoline, 4-nitro-, 1-oxid	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Polycyclic Aromatic Hydrocarbons (µg/kg)</b>																	
1-Methylnaphthalene	NC	24,000		47 U	37 U	35 U	35 U	39 U	34 U	32 U	39 U	35 U	36 U	37 U	34 U	36 U	31 U
2-Methylnaphthalene	NC	320,000		31 U	25 U	23 U	23 U	26 U	23 U	21 U	26 U	23 U	24 U	25 U	23 U	24 U	21 U
Acenaphthene	NC	4,800,000		31 U	25 U	23 U	23 U	26 U	23 U	21 U	26 U	23 U	24 U	25 U	23 U	24 U	21 U
Acenaphthylene	NC	NC		31 U	25 U	23 U	23 U	26 U	23 U	21 U	26 U	23 U	24 U	25 U	23 U	24 U	21 U
Anthracene	NC	24,000,000		31 U	25 U	23 U	23 U	26 U	23 U	21 U	26 U	23 U	24 U	25 U	23 U	24 U	21 U
Benz[a]anthracene <sup>2</sup>	NC	NC		39 U	31 U	29 U	29 U	32 U	29 U	26 U	33 U	29 U	<b>34</b>	31 U	28 U	30 U	26 U
Benzo(a)pyrene <sup>2</sup>	100	140		47 U	37 U	35 U	35 U	39 U	34 U	32 U	39 U	35 U	36 U	37 U	34 U	36 U	31 U
Benzo(b)fluoranthene <sup>2</sup>	NC	NC		31 U	25 U	23 U	<b>38</b>	26 U	23 U	21 U	26 U	23 U	<b>32</b>	25 U	23 U	24 U	21 U
Benzo(ghi)perylene	NC	NC		39 U	31 U	29 U	29 U	32 U	29 U	26 U	33 U	29 U	30 U	31 U	28 U	30 U	26 U
Benzo(k)fluoranthene <sup>2</sup>	NC	NC		39 U	31 U	29 U	29 U	32 U	29 U	26 U	33 U	29 U	30 U	31 U	28 U	30 U	26 U
Chrysene <sup>2</sup>	NC	NC		39 U	31 U	29 U	<b>30</b>	32 U	29 U	26 U	33 U	29 U	30 U	31 U	28 U	30 U	26 U
Dibenzo(a,h)anthracene <sup>2</sup>	NC	NC		62 U	50 U	47 U	47 U	52 U	46 U	42 U	53 U	46 U	49 U	49 U	45 U	48 U	41 U
Fluoranthene	NC	3,200,000		31 U	25 U	23 U	<b>33</b>	26 U	<b>27</b>	21 U	26 U	23 U	<b>37</b>	<b>53</b>	23 U	24 U	21 U
Fluorene	NC	3,200,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene <sup>2</sup>	NC	NC		62 U	50 U	47 U	47 U	52 U	46 U	42 U	53 U	46 U	49 U	49 U	45 U	48 U	41 U
Naphthalene	5,000	1,600,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	NC	NC		31 U	25 U	23 U	23 U	26 U	23 U	21 U	26 U	23 U	24 U	<b>48</b>	23 U	24 U	21 U
Pyrene	NC	2,400,000		31 U	25 U	23 U	<b>33</b>	26 U	<b>30</b>	21 U	26 U	23 U	<b>49</b>	<b>57</b>	23 U	24 U	21 U
<b>cPAH Toxic Equivalency<sup>3</sup> (ug/kg)</b>	<b>100</b>	<b>140</b>		<b>47 U</b>	<b>37 U</b>	<b>35 U</b>	<b>10</b>	<b>39 U</b>	<b>34 U</b>	<b>32 U</b>	<b>39 U</b>	<b>35 U</b>	<b>7</b>	<b>37 U</b>	<b>34 U</b>	<b>36 U</b>	<b>31 U</b>
<b>Total Petroleum Hydrocarbons (mg/kg)</b>																	
Gasoline Range Hydrocarbons	30 /100	NC		4.8 U	4.3 U	4.7 U	3.6 U	4.6 U	7.2 U	4 U	5.6 U	4.1 U	5.3 U	8.5 U	4.3 U	4.6 U	4 U
Diesel Range Hydrocarbons	2,000	NC		38 U	31 U	28 U	30 U	33 U	30 U	27 U	<b>75</b>	28 U	30 U	<b>120</b>	29 U	30 U	26 U
Heavy Oil Range Hydrocarbons	2,000	NC		76 U	63 U	56 U	60 U	66 U	<b>62</b>	54 U	<b>350</b>	56 U	60 U	<b>290</b>	59 U	60 U	52 U
<b>Polychlorinated Biphenyls (µg/kg)</b>																	
PCB-aroclor 1016	NC	5,600		160 U	120 U	120 U	120 U	130 U	120 U	110 U	130 U	110 U	120 U	120 U	110 U	120 U	110 U
PCB-aroclor 1221	NC	NC		160 U	120 U	120 U	120 U	130 U	120 U	110 U	130 U	110 U	120 U	120 U	110 U	120 U	110 U
PCB-aroclor 1232	NC	NC		160 U	120 U	120 U	120 U	130 U	120 U	110 U	130 U	110 U	120 U	120 U	110 U	120 U	110 U
PCB-aroclor 1242	NC	NC		160 U	120 U	120 U	120 U	130 U	120 U	110 U	130 U	110 U	120 U	120 U	110 U	120 U	110 U
PCB-aroclor 1248	NC	NC		160 U	120 U	120 U	120 U	130 U	120 U	110 U	130 U	110 U	120 U	120 U	110 U	120 U	110 U
PCB-aroclor 1254	NC	1,600		160 U	120 U	120 U	120 U	130 U	120 U	110 U	130 U	110 U	120 U	120 U	110 U	120 U	110 U
PCB-aroclor 1260	NC	NC		160 UJ	120 UJ	120 UJ	120 UJ	130 UJ	120 UJ	110 UJ	130 UJ	110 UJ	120 UJ	120 UJ	110 UJ	120 UJ	110 UJ

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW09	MW10	MW10	MW11	MW11	MW12	MW12	MW13	MW-13	MW14	MW14	MW15	MW15	MW16
			Sample Number	032708-10	103108-3	103108-7	103008-8	103008-8	103108-4.5	103108-8	103008-3	103008-8	103108-4	103108-8	103108-3	103108-5	103108-5
			Date of Collection	3/27/2008	10/31/2008	10/31/2008	10/30/2008	10/30/2008	10/31/2008	10/31/2008	10/30/2008	10/30/2008	10/31/2008	10/31/2008	10/31/2008	10/31/2008	10/31/2008
			Depth Interval	10-10.5	3-3.5	7-7.5	3-3.5	8-8.5	4-4.5	8-8.5	3-3.5	8-8.5	4-4.5	8-8.5	3-3.5	5-5.5	5-5.5
<b>Metals (mg/kg)</b>																	
Arsenic	20	0.67		3.8 U	1.1	5 U	1.6	5 U	1 U	1 U	1.3	1.4	1.7	1	2.1	1 U	1 U
Barium	NC	16,000		9	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	NC	40		0.63 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	NC	NC		11	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium, Hexavalent	19	240		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	250	NC		2.1	8.1	1.2	1.1 U	1 U	1.3	1.4	4	2	1.7	1	510	5 U	5 U
Mercury	2	24		0.025 U	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Selenium	NC	400		6.3 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	NC	400		1.3 U	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Volatile Organic Compounds (µg/kg)</b>																	
1,1,1,2-Tetrachloroethane	NC	38,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,1,1-Trichloroethane	2,000	72,000,000		18 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,1,2,2-Tetrachloroethane	NC	5,000		9.2 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,1,2-Trichloroethane	NC	18,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,1-Dichloroethane	NC	8,000,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,1-Dichloroethene	NC	4,000,000		18 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,1-Dichloropropene	NC	NC		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,2,3-Trichlorobenzene	NC	NC		46 U	100 U	120	100 U	100 U	100 U	100 U	100 U	--	100 U	100 U	100 U	100 U	100 U
1,2,3-Trichloropropane	NC	140		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,2,4-Trichlorobenzene	NC	800,000		46 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	--	100 U	100 U	100 U	100 U	100 U
1,2,4-Trimethylbenzene	NC	4,000,000		46 U	53	110	50 U	50 U	66	50 U	50 U	--	50 U	89	100	60	78
1,2-Dibromo-3-Chloropropane	NC	710		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,2-Dichlorobenzene	NC	7,200,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,2-Dichloroethane	NC	11,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,2-Dichloropropane	NC	15,000		2.9 J	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,3,5-Trimethylbenzene	NC	4,000,000		46 U	50 U	81	50 U	50 U	62	50 U	50 U	--	50 U	66	65	50 U	63
1,3-Dichlorobenzene	NC	NC		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
1,3-Dichloropropane	NC	NC		18 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	NC	42,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
2,2-Dichloropropane	NC	NC		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
2-Butanone	NC	48,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorotoluene	NC	1,600,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
2-Hexanone	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorotoluene	NC	NC		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
Acetone	NC	8,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	30	18,000		9.2 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	--	20 U	20 U	160	20 U	20 U
Bromobenzene	NC	NC		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
Bromochloromethane	NC	NC		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U
Bromoform	NC	130,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW09	MW10	MW10	MW11	MW11	MW12	MW12	MW13	MW-13	MW14	MW14	MW15	MW15	MW16	
			Sample Number	032708-10	103108-3	103108-7	103008-8	103008-8	103108-4.5	103108-8	103008-3	103008-8	103108-4	103108-8	103108-3	103108-5	103108-5	
			Date of Collection	3/27/2008	10/31/2008	10/31/2008	10/30/2008	10/30/2008	10/31/2008	10/31/2008	10/30/2008	10/30/2008	10/31/2008	10/31/2008	10/31/2008	10/31/2008	10/31/2008	10/31/2008
			Depth Interval	10-10.5	3-3.5	7-7.5	3-3.5	8-8.5	4-4.5	8-8.5	3-3.5	8-8.5	4-4.5	8-8.5	3-3.5	5-5.5	5-5.5	
Bromomethane	NC	110,000		230 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Carbon Disulfide	NC	8,000,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Carbon Tetrachloride	NC	7,700		18 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
CFC-11	NC	24,000,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
CFC-12	NC	16,000,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Chlorobenzene	NC	1,600,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Chloroethane	NC	350,000		230 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Chloroform	NC	160,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Chloromethane	NC	77,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Cis-1,2-Dichloroethene	NC	800,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Cis-1,3-Dichloropropene	NC	NC		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Dibromochloromethane	NC	12,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Dibromomethane	NC	800,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Dichlorobromomethane	NC	16,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Ethylbenzene	6,000	8,000,000		46 U	50 U	<b>72</b>	50 U	50 U	50 U	50 U	50 U	--	50 U	<b>68</b>	<b>120</b>	50 U	<b>77</b>	
Ethylene dibromide	5	12		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Hexachlorobutadiene	NC	13,000		46 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	--	100 U	100 U	100 U	100 U	100 U	
Isopropylbenzene (Cumene)	NC	8,000,000		46 U	50 U	<b>71</b>	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Methyl isobutyl ketone	NC	6,400,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Methyl t-butyl ether	100	560,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Methylene Chloride	20	130,000		<b>9.1 J</b>	20 U	20 U	20 U	20 U	20 U	20 U	20 U	--	20 U	20 U	20 U	20 U	20 U	
Naphthalene	5,000	1,600,000		46 U	100 U	100 U	100 U	100 U	<b>120</b>	100 U	100 U	--	100 U	100 U	100 U	100 U	100 U	
n-Butylbenzene	NC	NC		46 U	50 U	<b>74</b>	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	<b>51</b>	50 U	50 U	
n-Propylbenzene	NC	NC		46 U	50 U	<b>75</b>	50 U	50 U	<b>63</b>	50 U	50 U	--	<b>84</b>	<b>64</b>	<b>70</b>	50 U	50 U	
p-Isopropyltoluene	NC	NC		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Sec-Butylbenzene	NC	NC		46 U	50 U	<b>71</b>	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Styrene	NC	33,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Tert-Butylbenzene	NC	NC		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Tetrachloroethene	50	1,900		29 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	--	20 U	20 U	20 U	20 U	<b>230</b>	
Toluene	7,000	6,400,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	<b>82</b>	<b>700</b>	50 U	<b>170</b>	
Total Xylenes	9,000	16,000,000		92 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trans-1,2-Dichloroethene	NC	1,600,000		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Trans-1,3-Dichloropropene	NC	NC		46 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
Trichloroethene	30	2,500		18 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	--	20 U	20 U	20 U	20 U	20 U	
Vinyl Chloride	NC	670		18 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	50 U	50 U	50 U	50 U	50 U	
<b>Semi-Volatile Organic Compounds (µg/kg)</b>																		
1,2,4-Trichlorobenzene	NC	800,000		60 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
1,2-Dichlorobenzene	NC	7,200,000		60 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
1,3-Dichlorobenzene	NC	NC		60 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
1,3-Dinitrobenzene	NC	8,000		--	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	
1,4-Dichlorobenzene	NC	42,000		60 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
1,4-Dinitro-Benzene	NC	32,000		--	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW09	MW10	MW10	MW11	MW11	MW12	MW12	MW13	MW-13	MW14	MW14	MW15	MW15	MW16
			Sample Number	032708-10	103108-3	103108-7	103008-8	103008-8	103108-4.5	103108-8	103008-3	103008-8	103108-4	103108-8	103108-3	103108-5	103108-5
			Date of Collection	3/27/2008	10/31/2008	10/31/2008	10/30/2008	10/30/2008	10/31/2008	10/31/2008	10/30/2008	10/30/2008	10/31/2008	10/31/2008	10/31/2008	10/31/2008	10/31/2008
			Depth Interval	10-10.5	3-3.5	7-7.5	3-3.5	8-8.5	4-4.5	8-8.5	3-3.5	8-8.5	4-4.5	8-8.5	3-3.5	5-5.5	5-5.5
2,2'-Oxybis[1-chloropropane]	NC	14,000		180 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2,3,4,6-Tetrachlorophenol	NC	2,400,000		--	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2,3,5,6-Tetrachlorophenol	NC	NC		--	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2,4,5-Trichlorophenol	NC	8,000,000		120 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2,4,6-Trichlorophenol	NC	91,000		180 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2,4-Dichlorophenol	NC	240,000		120 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2,4-Dimethylphenol	NC	1,600,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2,4-Dinitrophenol	NC	160,000		1,200 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2,4-Dinitrotoluene	NC	160,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2,6-Dinitrotoluene	NC	80,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2-Chloronaphthalene	NC	6,400,000		24 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2-Chlorophenol	NC	400,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2-Nitroaniline	NC	NC		120 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2-Nitrophenol	NC	NC		120 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
3,3'-Dichlorobenzidine	NC	2,200		240 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	NC	NC		1,200 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
4-Bromophenyl phenyl ether	NC	NC		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
4-Chloro-3-Methylphenol	NC	NC		120 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
4-Chloroaniline	NC	320,000		120 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
4-Chlorophenyl-Phenylether	NC	NC		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
4-Nitroaniline	NC	NC		120 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
4-Nitrophenol	NC	NC		1,200 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Aniline	NC	180,000		--	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Benzoic Acid	NC	320,000,000		3,000 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol	NC	24,000,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Bis(2-Chloroethoxy)Methane	NC	NC		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Bis(2-Chloroethyl)Ether	NC	910		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Bis(2-chloroisopropyl) ether	NC	3,200,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	NC	71,000		1,800 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Butyl benzyl phthalate	NC	16,000,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Carbazole	NC	50,000		180 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Dibenzofuran	NC	160,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Dibutyl phthalate	NC	8,000,000		240 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Diethyl phthalate	NC	64,000,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Dimethyl phthalate	NC	80,000,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Di-N-Octyl Phthalate	NC	1,600,000		240 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Hexachlorobenzene	NC	630		60 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Hexachlorobutadiene	NC	13,000		60 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Hexachlorocyclopentadiene	NC	480,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Hexachloroethane	NC	71,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	NC	830,000		--	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Isophorone	NC	1,100,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U



Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW09	MW10	MW10	MW11	MW11	MW12	MW12	MW13	MW-13	MW14	MW14	MW15	MW15	MW16	
			Sample Number	032708-10	103108-3	103108-7	103008-8	103008-8	103108-4.5	103108-8	103008-3	103008-8	103108-4	103108-8	103108-3	103108-5	103108-5	
			Date of Collection	3/27/2008	10/31/2008	10/31/2008	10/30/2008	10/30/2008	10/31/2008	10/31/2008	10/30/2008	10/30/2008	10/31/2008	10/31/2008	10/31/2008	10/31/2008	10/31/2008	10/31/2008
			Depth Interval	10-10.5	3-3.5	7-7.5	3-3.5	8-8.5	4-4.5	8-8.5	3-3.5	8-8.5	4-4.5	8-8.5	3-3.5	5-5.5	5-5.5	
m-Nitroaniline	NC	NC		120 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	
Naphthalene	5,000	1,600,000		24 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
Nitrobenzene	NC	40,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
N-Nitrosodi-n-propylamine	NC	140		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
N-Nitrosodiphenylamine	NC	200,000		60 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
o-Cresol	NC	4,000,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
p-Cresol	NC	400,000		240 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pentachlorophenol	NC	8,300		120 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	
Phenol	NC	48,000,000		120 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
Phenol, 3,4-dimethyl	NC	80,000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pyridine	NC	80,000		--	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	
Quinoline, 4-nitro-, 1-oxid	NC	NC		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Polycyclic Aromatic Hydrocarbons (µg/kg)</b>																		
1-Methylnaphthalene	NC	24,000		36 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50	10 U	
2-Methylnaphthalene	NC	320,000		24 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	140	10 U	
Acenaphthene	NC	4,800,000		24 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	70	50	10 U	10 U	10 U	
Acenaphthylene	NC	NC		24 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Anthracene	NC	24,000,000		24 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Benz[a]anthracene <sup>2</sup>	NC	NC		30 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Benzo(a)pyrene <sup>2</sup>	100	140		36 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Benzo(b)fluoranthene <sup>2</sup>	NC	NC		24 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Benzo(ghi)perylene	NC	NC		30 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Benzo(k)fluoranthene <sup>2</sup>	NC	NC		30 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Chrysene <sup>2</sup>	NC	NC		30 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Dibenzo(a,h)anthracene <sup>2</sup>	NC	NC		48 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Fluoranthene	NC	3,200,000		24 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	80	10 U	
Fluorene	NC	3,200,000		--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Indeno(1,2,3-cd)pyrene <sup>2</sup>	NC	NC		48 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Naphthalene	5,000	1,600,000		--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	240	10 U	
Phenanthrene	NC	NC		24 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Pyrene	NC	2,400,000		29	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	80	10 U	
<b>cPAH Toxic Equivalency<sup>3</sup> (ug/kg)</b>	100	140		36 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
<b>Total Petroleum Hydrocarbons (mg/kg)</b>																		
Gasoline Range Hydrocarbons	30 /100	NC		4.6 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
Diesel Range Hydrocarbons	2,000	NC		30 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
Heavy Oil Range Hydrocarbons	2,000	NC		61 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Polychlorinated Biphenyls (µg/kg)</b>																		
PCB-aroclor 1016	NC	5,600		120 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1221	NC	NC		120 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1232	NC	NC		120 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1242	NC	NC		120 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1248	NC	NC		120 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1254	NC	1,600		120 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-aroclor 1260	NC	NC		120 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--	

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW16	PP18	PP18	PP19	PP19	PP20	PP20
			Sample Number	103108-10	103008-3	103008-10	103008-3	103008-6	103008-3	103008-9
			Date of Collection	10/31/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008
			Depth Interval	10-10.5	3-3.5	10-10.5	3-3.5	6-6.5	3-3.5	9-9.5
<b>Metals (mg/kg)</b>										
Arsenic	20	0.67		1 U	1.8	1.3	1.3	1 U	1.5	1 U
Barium	NC	16,000		--	--	--	--	--	--	--
Cadmium	NC	40		--	--	--	--	--	--	--
Chromium	NC	NC		--	--	--	--	--	--	--
Chromium, Hexavalent	19	240		--	--	--	--	--	--	--
Lead	250	NC		4.4	1.3	7.1	46	1.6	20	1.6
Mercury	2	24		0.5	0.5	0.5	0.5	0.5	0.5	0.5
Selenium	NC	400		--	--	--	--	--	--	--
Silver	NC	400		--	--	--	--	--	--	--
<b>Volatile Organic Compounds (µg/kg)</b>										
1,1,1,2-Tetrachloroethane	NC	38,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,1,1-Trichloroethane	2,000	72,000,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,1,2,2-Tetrachloroethane	NC	5,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,1,2-Trichloroethane	NC	18,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,1-Dichloroethane	NC	8,000,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,1-Dichloroethene	NC	4,000,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,1-Dichloropropene	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2,3-Trichlorobenzene	NC	NC		100 U	100 U	100 U	100 U	100 U	100 U	100 U
1,2,3-Trichloropropane	NC	140		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2,4-Trichlorobenzene	NC	800,000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
1,2,4-Trimethylbenzene	NC	4,000,000		110	50 U	50 U	50 U	50 U	50 U	50 U
1,2-Dibromo-3-Chloropropane	NC	710		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2-Dichlorobenzene	NC	7,200,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2-Dichloroethane	NC	11,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,2-Dichloropropane	NC	15,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,3,5-Trimethylbenzene	NC	4,000,000		74	50 U	50 U	50 U	50 U	50 U	50 U
1,3-Dichlorobenzene	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
1,3-Dichloropropane	NC	NC		--	--	--	--	--	--	--
1,4-Dichlorobenzene	NC	42,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
2,2-Dichloropropane	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	NC	48,000,000		--	--	--	--	--	--	--
2-Chlorotoluene	NC	1,600,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Hexanone	NC	NC		--	--	--	--	--	--	--
4-Chlorotoluene	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	NC	8,000,000		--	--	--	--	--	--	--
Benzene	30	18,000		20 U	20 U	20 U	20 U	20 U	20 U	20 U
Bromobenzene	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Bromochloromethane	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Bromoform	NC	130,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Bromomethane	NC	110,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Carbon Disulfide	NC	8,000,000		--	--	--	--	--	--	--

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW16	PP18	PP18	PP19	PP19	PP20	PP20
			Sample Number	103108-10	103008-3	103008-10	103008-3	103008-6	103008-3	103008-9
			Date of Collection	10/31/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008
			Depth Interval	10-10.5	3-3.5	10-10.5	3-3.5	6-6.5	3-3.5	9-9.5
Carbon Tetrachloride	NC	7,700		50 U	50 U	50 U	50 U	50 U	50 U	50 U
CFC-11	NC	24,000,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
CFC-12	NC	16,000,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Chlorobenzene	NC	1,600,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Chloroethane	NC	350,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Chloroform	NC	160,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Chloromethane	NC	77,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Cis-1,2-Dichloroethene	NC	800,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Cis-1,3-Dichloropropene	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dibromochloromethane	NC	12,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dibromomethane	NC	800,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dichlorobromomethane	NC	16,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Ethylbenzene	6,000	8,000,000		75	50 U	50 U	50 U	50 U	50 U	50 U
Ethylene dibromide	5	12		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Hexachlorobutadiene	NC	13,000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Isopropylbenzene (Cumene)	NC	8,000,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Methyl isobutyl ketone	NC	6,400,000		--	--	--	--	--	--	--
Methyl t-butyl ether	100	560,000		--	--	--	--	--	--	--
Methylene Chloride	20	130,000		20 U	20 U	20 U	20 U	20 U	20 U	20 U
Naphthalene	5,000	1,600,000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
n-Butylbenzene	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
n-Propylbenzene	NC	NC		74	50 U	50 U	50 U	50 U	50 U	50 U
p-Isopropyltoluene	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Sec-Butylbenzene	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Styrene	NC	33,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Tert-Butylbenzene	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Tetrachloroethene	50	1,900		20 U	20 U	20 U	20 U	20 U	20 U	20 U
Toluene	7,000	6,400,000		72	50 U	50 U	50 U	50 U	50 U	50 U
Total Xylenes	9,000	16,000,000		--	--	--	--	--	--	--
Trans-1,2-Dichloroethene	NC	1,600,000		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Trans-1,3-Dichloropropene	NC	NC		50 U	50 U	50 U	50 U	50 U	50 U	50 U
Trichloroethene	30	2,500		20 U	20 U	20 U	20 U	20 U	20 U	20 U
Vinyl Chloride	NC	670		50 U	50 U	50 U	50 U	50 U	50 U	50 U
<b>Semi-Volatile Organic Compounds (µg/kg)</b>										
1,2,4-Trichlorobenzene	NC	800,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
1,2-Dichlorobenzene	NC	7,200,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
1,3-Dichlorobenzene	NC	NC		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
1,3-Dinitrobenzene	NC	8,000		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
1,4-Dichlorobenzene	NC	42,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
1,4-Dinitro-Benzene	NC	32,000		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2,2'-Oxybis[1-chloropropane]	NC	14,000		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2,3,4,6-Tetrachlorophenol	NC	2,400,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2,3,5,6-Tetrachlorophenol	NC	NC		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2,4,5-Trichlorophenol	NC	8,000,000		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2,4,6-Trichlorophenol	NC	91,000		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2,4-Dichlorophenol	NC	240,000		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW16	PP18	PP18	PP19	PP19	PP20	PP20
			Sample Number	103108-10	103008-3	103008-10	103008-3	103008-6	103008-3	103008-9
			Date of Collection	10/31/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008
			Depth Interval	10-10.5	3-3.5	10-10.5	3-3.5	6-6.5	3-3.5	9-9.5
2,4-Dimethylphenol	NC	1,600,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2,4-Dinitrophenol	NC	160,000		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2,4-Dinitrotoluene	NC	160,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2,6-Dinitrotoluene	NC	80,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2-Chloronaphthalene	NC	6,400,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2-Chlorophenol	NC	400,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
2-Nitroaniline	NC	NC		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
2-Nitrophenol	NC	NC		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
3,3'-Dichlorobenzidine	NC	2,200		--	--	--	--	--	--	--
4,6-Dinitro-2-Methylphenol	NC	NC		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
4-Bromophenyl phenyl ether	NC	NC		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
4-Chloro-3-Methylphenol	NC	NC		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
4-Chloroaniline	NC	320,000		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
4-Chlorophenyl-Phenylether	NC	NC		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
4-Nitroaniline	NC	NC		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
4-Nitrophenol	NC	NC		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Aniline	NC	180,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Benzoic Acid	NC	320,000,000		--	--	--	--	--	--	--
Benzyl Alcohol	NC	24,000,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Bis(2-Chloroethoxy)Methane	NC	NC		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Bis(2-Chloroethyl)Ether	NC	910		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Bis(2-chloroisopropyl) ether	NC	3,200,000		--	--	--	--	--	--	--
Bis(2-Ethylhexyl) Phthalate	NC	71,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Butyl benzyl phthalate	NC	16,000,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Carbazole	NC	50,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Dibenzofuran	NC	160,000		1,000 U	1,000 U	1,000 U	<b>300</b>	1,000 U	1,000 U	1,000 U
Dibutyl phthalate	NC	8,000,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Diethyl phthalate	NC	64,000,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Dimethyl phthalate	NC	80,000,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Di-N-Octyl Phthalate	NC	1,600,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Hexachlorobenzene	NC	630		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Hexachlorobutadiene	NC	13,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Hexachlorocyclopentadiene	NC	480,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Hexachloroethane	NC	71,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	NC	830,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Isophorone	NC	1,100,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
m-Nitroaniline	NC	NC		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Naphthalene	5,000	1,600,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Nitrobenzene	NC	40,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
N-Nitrosodi-n-propylamine	NC	140		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
N-Nitrosodiphenylamine	NC	200,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
o-Cresol	NC	4,000,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
p-Cresol	NC	400,000		--	--	--	--	--	--	--
Pentachlorophenol	NC	8,300		5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Phenol	NC	48,000,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Phenol, 3,4-dimethyl	NC	80,000		--	--	--	--	--	--	--

Analyte	MTCA <sup>1</sup> Method A Cleanup Level	MTCA <sup>1</sup> Method B Cleanup Level	Location	MW16	PP18	PP18	PP19	PP19	PP20	PP20
			Sample Number	103108-10	103008-3	103008-10	103008-3	103008-6	103008-3	103008-9
			Date of Collection	10/31/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008	10/30/2008
			Depth Interval	10-10.5	3-3.5	10-10.5	3-3.5	6-6.5	3-3.5	9-9.5
Pyridine	NC	80,000		1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Quinoline, 4-nitro-, 1-oxid	NC	NC		--	--	--	--	--	--	--
<b>Polycyclic Aromatic Hydrocarbons (µg/kg)</b>										
1-Methylnaphthalene	NC	24,000		10 U	10 U	10 U	<b>70</b>	10 U	10 U	10 U
2-Methylnaphthalene	NC	320,000		10 U	10 U	10 U	<b>70</b>	10 U	10 U	10 U
Acenaphthene	NC	4,800,000		10 U	10 U	10 U	<b>350</b>	10 U	10 U	10 U
Acenaphthylene	NC	NC		10 U	10 U	10 U	<b>100</b>	10 U	10 U	10 U
Anthracene	NC	24,000,000		10 U	10 U	<b>180</b>	<b>2,000</b>	10 U	<b>30</b>	10 U
Benz[a]anthracene <sup>2</sup>	NC	NC		10 U	10 U	10 U	<b>260</b>	10 U	10 U	10 U
Benzo(a)pyrene <sup>2</sup>	100	140		10 U	10 U	10 U	<b>4,200</b>	10 U	10 U	10 U
Benzo(b)fluoranthene <sup>2</sup>	NC	NC		10 U	10 U	10 U	<b>750</b>	10 U	10 U	10 U
Benzo(ghi)perylene	NC	NC		10 U	10 U	10 U	<b>1,800</b>	10 U	10 U	10 U
Benzo(k)fluoranthene <sup>2</sup>	NC	NC		10 U	10 U	10 U	<b>2,300</b>	10 U	10 U	10 U
Chrysene <sup>2</sup>	NC	NC		10 U	10 U	10 U	<b>4,300</b>	10 U	10 U	10 U
Dibenzo(a,h)anthracene <sup>2</sup>	NC	NC		10 U	10 U	10 U	<b>260</b>	10 U	10 U	10 U
Fluoranthene	NC	3,200,000		10 U	10 U	<b>1,200</b>	<b>8,500</b>	10 U	<b>140</b>	10 U
Fluorene	NC	3,200,000		10 U	10 U	10 U	<b>1,100</b>	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene <sup>2</sup>	NC	NC		10 U	10 U	10 U	<b>2,600</b>	10 U	10 U	10 U
Naphthalene	5,000	1,600,000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	NC	NC		10 U	10 U	<b>520</b>	<b>8,200</b>	10 U	<b>200</b>	10 U
Pyrene	NC	2,400,000		10 U	10 U	<b>1,200</b>	<b>7,500</b>	10 U	<b>180</b>	10 U
<b>cPAH Toxic Equivalency<sup>3</sup> (ug/kg)</b>	100	140		10 U	10 U	10 U	<b>4,860</b>	10 U	10 U	10 U
<b>Total Petroleum Hydrocarbons (mg/kg)</b>										
Gasoline Range Hydrocarbons	30 /100	NC		--	--	--	--	--	--	--
Diesel Range Hydrocarbons	2,000	NC		--	--	--	--	--	--	--
Heavy Oil Range Hydrocarbons	2,000	NC		--	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (µg/kg)</b>										
PCB-aroclor 1016	NC	5,600		--	--	--	--	--	--	--
PCB-aroclor 1221	NC	NC		--	--	--	--	--	--	--
PCB-aroclor 1232	NC	NC		--	--	--	--	--	--	--
PCB-aroclor 1242	NC	NC		--	--	--	--	--	--	--
PCB-aroclor 1248	NC	NC		--	--	--	--	--	--	--
PCB-aroclor 1254	NC	1,600		--	--	--	--	--	--	--
PCB-aroclor 1260	NC	NC		--	--	--	--	--	--	--

## Notes:

<sup>1</sup> Model Toxics Control Act (MTCA) Cleanup Regulation Chapter 173-340 WAC.

<sup>2</sup> Considered a carcinogen polycyclic aromatic hydrocarbon under WAC 173-340-708 (8)(e).

<sup>3</sup> cPAH testing and regulatory evaluation is completed for individual carcinogenic compounds as well as the for the summation of the mixture of the seven carcinogenic PAHs (known as Ecology's toxicity equivalency methodology). The summation procedure is completed using toxicity equivalency factors for each individual compound which are then added to produce a toxicity equivalency quotient (TEQ), which is then compared to the MTCA cleanup level of 0.1 mg/kg (or 100 µg/kg). Calculations were performed on samples with detections only.

U = The analyte was not detected at a concentration greater than the given reporting limit as shown

J = The analyte concentration is estimated

B = The analyte was found in the method blank

R = The result for the analyte was rejected, and determined to not be usable during data validation

mg/kg = milligram per kilogram

µg/kg = microgram per kilogram

NC = Cleanup level not established by Ecology

-- = Indicates that the chemical analysis was not performed

Values presented in **bold** indicate the chemical was detected

Highlighted items indicate that the chemical concentration is greater than the MTCA cleanup level

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TABLE E-2  
 CHEMICAL ANALYTICAL RESULTS FOR GROUNDWATER - MARCH/APRIL  
 318 STATE AVENUE NE  
 OLYMPIA, WASHINGTON

Analyte	MTCA <sup>1</sup> Cleanup Level	MW01 3/31/2008	MW02 3/31/2008	MW03 3/31/2008	MW04 3/31/2008	MW05 3/31/2008	MW06 3/31/2008	MW07 3/31/2008	MW08 4/1/2008	MW09 4/1/2008
<b>Total Metals (mg/l)</b>										
Arsenic	0.005 <sup>2</sup>	<b>0.0079</b>	<b>0.0025</b>	0.002 U	0.002 U	<b>0.0061</b>	0.002 U	<b>0.0032</b>	0.002 U	<b>0.0034</b>
Barium	3.2 <sup>3</sup>	<b>0.028</b>	<b>0.029</b>	<b>0.012</b>	<b>0.047</b>	<b>0.041</b>	<b>0.025</b>	<b>0.036</b>	<b>0.031</b>	<b>0.023</b>
Cadmium	0.005 <sup>2</sup>	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chromium	0.05 <sup>2</sup>	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Lead	0.015 <sup>2</sup>	0.002 U	0.002 U	0.002 U	0.002 U	<b>0.0039</b>	0.002 U	0.002 U	0.002 U	0.002 U
Mercury	0.002 <sup>2</sup>	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Selenium	0.08 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Silver	0.08 <sup>3</sup>	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
<b>Dissolved Metals (mg/l)</b>										
Arsenic	0.005 <sup>2</sup>	<b>0.0053</b>	0.002 U	0.002 U	0.002 U	<b>0.0047</b>	0.002 U	<b>0.0025</b>	0.002 U	<b>0.0029</b>
Barium	3.2 <sup>3</sup>	<b>0.015</b>	<b>0.025</b>	0.01 U	<b>0.028</b>	<b>0.038</b>	<b>0.013</b>	<b>0.03</b>	<b>0.027</b>	<b>0.021</b>
Cadmium	0.005 <sup>2</sup>	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chromium	0.05 <sup>2</sup>	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Lead	0.015 <sup>2</sup>	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Mercury	0.002 <sup>2</sup>	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Selenium	0.08 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Silver	0.08 <sup>3</sup>	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
<b>Volatile Organic Compounds (µg/l)</b>										
1,1,1,2-Tetrachloroethane	1.7 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,1,1-Trichloroethane	200 <sup>2</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,1,2,2-Tetrachloroethane	0.22 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,1,2-Trichloroethane	0.77 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,1-Dichloroethane	800 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,1-Dichloroethene	400 <sup>3</sup>	0.1 U	0.1 U	<b>0.32</b>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,1-Dichloropropene	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,2,3-Trichlorobenzene	NC	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,3-Trichloropropane	0.0063 <sup>3</sup>	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	80 <sup>3</sup>	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trimethylbenzene	400 <sup>3</sup>	0.1 U	0.1 U	0.1 U	<b>0.12</b>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,2-Dibromo-3-Chloropropane	0.031 <sup>3</sup>	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichlorobenzene	720 <sup>3</sup>	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	5 <sup>2</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,2-Dichloropropane	0.64 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,3,5-Trimethylbenzene	400 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,3-Dichlorobenzene	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichloropropane	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,2-Dichloropropane	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2-Chlorotoluene	160 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4-Chlorotoluene	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Benzene	5 <sup>2</sup>	0.1 U	<b>0.11</b>	0.1 U	<b>0.17</b>	<b>0.33</b>	<b>0.19</b>	<b>0.34</b>	0.1 U	<b>0.12</b>
Bromobenzene	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Bromochloromethane	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Bromoform	5.5 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Bromomethane	11 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Carbon Tetrachloride	0.34 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
CFC-11	2,400 <sup>3</sup>	0.1 U	<b>1.1</b>	0.1 U	0.1 U	<b>7.5</b>	0.1 U	0.1 U	0.1 U	<b>0.18</b>
CFC-12	1,600 <sup>3</sup>	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Chlorobenzene	160 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chloroethane	15 <sup>3</sup>	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	7.2 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chloromethane	3.4 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Cis-1,2-Dichloroethene	80 <sup>3</sup>	0.1 U	<b>0.45</b>	<b>1.7</b>	<b>0.15</b>	<b>0.21</b>	<b>0.22</b>	<b>0.5</b>	0.1 U	0.1 U
Cis-1,3-Dichloropropene	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibromochloromethane	0.52 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibromomethane	80 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dichlorobromomethane	0.71 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Ethylbenzene	700 <sup>2</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Ethylene dibromide	0.01 <sup>2</sup>	0.019 U	0.019 U	0.019 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.019 U
Hexachlorobutadiene	0.56 <sup>3</sup>	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Isopropylbenzene (Cumene)	800 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methylene Chloride	5 <sup>2</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Naphthalene	160 <sup>2,3</sup>	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
n-Butylbenzene	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
n-Propylbenzene	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
p-Isopropyltoluene	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Sec-Butylbenzene	NC	0.1 U	0.1 U	0.1 U	<b>0.12</b>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Styrene	1.5 <sup>3</sup>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tert-Butylbenzene	NC	0.1 U	0.1 U	0.1 U	<b>0.1</b>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachloroethene	5 <sup>2</sup>	0.1 U	<b>0.24</b>	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toluene	1,000 <sup>2</sup>	<b>0.16</b>	<b>0.15</b>	<b>0.13</b>	<b>0.15</b>	<b>0.23</b>	<b>0.16</b>	<b>0.16</b>	<b>0.15</b>	<b>0.15</b>
Total Xylenes	1,000 <sup>2</sup>	0.3 U	<b>0.2</b>	0.3 U	<b>0.34</b>	<b>0.2</b>	0.3 U	0.3 U	0.3 U	0.3 U

Analyte	MTCA <sup>1</sup> Cleanup Level	MW01 3/31/2008	MW02 3/31/2008	MW03 3/31/2008	MW04 3/31/2008	MW05 3/31/2008	MW06 3/31/2008	MW07 3/31/2008	MW08 4/1/2008	MW09 4/1/2008
Trans-1,2-Dichloroethene	160 <sup>3</sup>	0.1 U	0.1 U	0.19	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Trans-1,3-Dichloropropene	NC	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Trichloroethene	5 <sup>2</sup>	0.1 U	5.3	3.8	0.35	1.4	0.1 U	0.22	0.1 U	0.1 U
Vinyl Chloride	0.2 <sup>2</sup>	0.02 U	0.45	1.7	0.35	1.5	0.27	3.5	0.02 U	0.8
<b>Semi-Volatile Organic Compounds (µg/l)</b>										
1,2,4-Trichlorobenzene	80 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
1,2-Dichlorobenzene	720 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
1,3-Dichlorobenzene	NC	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
1,4-Dichlorobenzene	1.8 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
2,2'-Oxybis[1-chloropropane]	0.63 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
2,4,5-Trichlorophenol	800 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
2,4,6-Trichlorophenol	4 <sup>3</sup>	0.29 U	0.29 U	0.28 U	0.29 U	0.3 U	0.29 U	0.29 U	0.29 U	0.29 U
2,4-Dichlorophenol	24 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
2,4-Dimethylphenol	160 <sup>3</sup>	0.98 UJ	0.96 UJ	0.94 UJ	0.96 UJ	0.99 UJ	0.95 UJ	0.96 UJ	0.98 UJ	0.98 UJ
2,4-Dinitrophenol	32 <sup>3</sup>	2.5 U	2.4 U	2.4 U	2.4 U	2.5 U	2.4 U	2.4 U	2.5 U	2.5 U
2,4-Dinitrotoluene	32 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
2,6-Dinitrotoluene	16 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
2-Chloronaphthalene	640 <sup>3</sup>	0.029 U	0.029 U	0.028 U	0.029 U	0.03 U	0.029 U	0.029 U	0.029 U	0.029 U
2-Chlorophenol	40 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
2-Nitroaniline	NC	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
2-Nitrophenol	NC	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
3,3'-Dichlorobenzidine	0.19 <sup>3</sup>	0.98 U	0.96 U	0.94 U	0.96 U	0.99 U	0.95 U	0.96 U	0.98 U	0.98 U
4,6-Dinitro-2-Methylphenol	NC	2 U	1.9 U	1.9 U	1.9 U	2 U	1.9 U	1.9 U	2 U	2 U
4-Bromophenyl phenyl ether	NC	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
4-Chloro-3-Methylphenol	NC	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
4-Chloroaniline	32 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
4-Chlorophenyl-Phenylether	NC	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
4-Nitroaniline	NC	0.29 U	0.29 U	0.28 U	0.29 U	0.3 U	0.29 U	0.29 U	0.29 U	0.29 U
4-Nitrophenol	NC	0.98 U	0.96 U	0.94 U	0.96 U	0.99 U	0.95 U	0.96 U	0.98 U	0.98 U
Anthracene	4,800 <sup>3</sup>	0.02 U	0.019 U	0.019 U	0.019 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U
Benzoic Acid	64,000 <sup>3</sup>	0.98 U	1.2	1.2	1.3	0.99 U	1.2	1.2	0.98 U	0.98 U
Benzyl Alcohol	2,400 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Bis(2-Chloroethoxy)Methane	NC	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Bis(2-Chloroethyl)Ether	0.04 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Bis(2-Ethylhexyl) Phthalate	6.3 <sup>3</sup>	1.5 U	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U	1.5 U	1.5 U
Butyl benzyl phthalate	3,200 <sup>3</sup>	0.29 U	0.29 U	0.28 U	0.29 U	0.3 U	0.29 U	0.29 U	0.29 U	0.29 U
Carbazole	4.4 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Dibenzofuran	32 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Dibutyl phthalate	1,600 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Diethyl phthalate	13,000 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Dimethyl phthalate	16,000 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Di-N-Octyl Phthalate	320 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Hexachlorobenzene	0.055 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Hexachlorobutadiene	0.56 <sup>3</sup>	0.29 U	0.29 U	0.28 U	0.29 U	0.3 U	0.29 U	0.29 U	0.29 U	0.29 U
Hexachlorocyclopentadiene	48 <sup>3</sup>	0.98 U	0.96 U	0.94 U	0.96 U	0.99 U	0.95 U	0.96 U	0.98 U	0.98 U
Hexachloroethane	3.1 <sup>3</sup>	0.29 U	0.29 U	0.28 U	0.29 U	0.3 U	0.29 U	0.29 U	0.29 U	0.29 U
Isophorone	46 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
m-Nitroaniline	NC	0.2 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.2 UJ	0.19 UJ	0.19 UJ	0.2 UJ	0.2 UJ
Nitrobenzene	4 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
N-Nitrosodi-n-propylamine	NC	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
N-Nitrosodiphenylamine	NC	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
o-Cresol	400 <sup>3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
p-Cresol	43 <sup>3</sup>	0.39 U	0.38 U	0.38 U	0.38 U	0.4 U	0.38 U	0.38 U	0.39 U	0.39 U
Pentachlorophenol	0.73 <sup>3</sup>	0.34 U	0.34 U	0.33 U	0.34 U	0.35 U	0.33 U	0.34 U	0.34 U	0.34 U
Phenol	4,800 <sup>3</sup>	0.29 U	0.29 U	0.28 U	0.29 U	0.3 U	0.29 U	0.29 U	0.29 U	0.29 U
Pyrene	480 <sup>3</sup>	0.029 U	0.029 U	0.028 U	0.029 U	0.03 U	0.029 U	0.029 U	0.029 U	0.029 U
<b>Polycyclic Aromatic Hydrocarbons (µg/l)</b>										
1-Methylnaphthalene	2.4 <sup>3</sup>	0.029 U	0.029 U	0.028 U	0.029 U	0.03 U	0.029 U	0.029 U	0.029 U	0.029 U
2-Methylnaphthalene	32 <sup>3</sup>	0.098 U	0.096 U	0.094 U	0.096 U	0.099 U	0.095 U	0.096 U	0.098 U	0.098 U
Acenaphthene	960 <sup>3</sup>	0.049 U	0.048 U	0.047 U	0.048 U	0.05 U	0.048 U	0.048 U	0.049 U	0.049 U
Acenaphthylene	NC	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U	0.038 U	0.038 U	0.039 U	0.039 U
Benz[a]anthracene <sup>4</sup>	NC	0.029 U	0.029 U	0.028 U	0.029 U	0.03 U	0.029 U	0.029 U	0.029 U	0.029 U
Benzo(a)pyrene <sup>4</sup>	0.1 <sup>2</sup>	0.044	0.019 U	0.019 U	0.019 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U
Benzo(b)fluoranthene <sup>4</sup>	NC	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U	0.038 U	0.038 U	0.039 U	0.039 U
Benzo(k)fluoranthene <sup>4</sup>	NC	0.029 U	0.029 U	0.028 U	0.029 U	0.03 U	0.029 U	0.029 U	0.029 U	0.029 U
Benzo(ghi)perylene <sup>4</sup>	NC	0.029 U	0.029 U	0.028 U	0.029 U	0.03 U	0.029 U	0.029 U	0.029 U	0.029 U
Chrysene <sup>4</sup>	NC	0.02 U	0.019 U	0.019 U	0.019 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U
Dibenzo(a,h)anthracene	NC	0.029 U	0.029 U	0.028 U	0.029 U	0.03 U	0.029 U	0.029 U	0.029 U	0.029 U
Fluoranthene	640 <sup>3</sup>	0.025 U	0.024 U	0.024 U	0.024 U	0.025 U	0.024 U	0.024 U	0.025 U	0.025 U
Fluorene	640 <sup>3</sup>	0.029 U	0.029 U	0.028 U	0.029 U	0.03 U	0.029 U	0.029 U	0.029 U	0.029 U
Indeno(1,2,3-cd)pyrene <sup>4</sup>	NC	0.029 U	0.029 U	0.028 U	0.029 U	0.03 U	0.029 U	0.029 U	0.029 U	0.029 U
Naphthalene	160 <sup>2,3</sup>	0.2 U	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U
Phenanthrene	NC	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U	0.038 U	0.038 U	0.039 U	0.039 U
<b>Carcinogenic Polycyclic Aromatic Hydrocarbons (µg/l)<sup>5</sup></b>										
	0.12	0.044	ND	ND	ND	ND	ND	ND	ND	ND
<b>Total Petroleum Hydrocarbons (mg/l)</b>										
Gasoline Range Hydrocarbons	1 / 0.8 <sup>2</sup>	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Diesel Range Hydrocarbons	0.5 <sup>2</sup>	0.12 U	0.12 U	0.12 U	0.012 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Heavy Oil Range Hydrocarbons	0.5 <sup>2</sup>	0.25 U	0.24 U	0.24 U	0.025 U	0.25 U	0.24 U	0.25 U	0.24 U	0.25 U



Analyte	MTCA <sup>1</sup> Cleanup Level	MW01 3/31/2008	MW02 3/31/2008	MW03 3/31/2008	MW04 3/31/2008	MW05 3/31/2008	MW06 3/31/2008	MW07 3/31/2008	MW08 4/1/2008	MW09 4/1/2008
<b>Polychlorinated Biphenyls (µg/l)</b>										
PCB-aroclor 1016	1.1 <sup>3</sup>	0.49 U	0.48 U	0.48 U	0.49 U	0.5 U	0.48 U	0.47 U	0.48 U	0.48 U
PCB-aroclor 1221	NC	0.49 U	0.48 U	0.48 U	0.49 U	0.5 U	0.48 U	0.47 U	0.48 U	0.48 U
PCB-aroclor 1232	NC	0.49 U	0.48 U	0.48 U	0.49 U	0.5 U	0.48 U	0.47 U	0.48 U	0.48 U
PCB-aroclor 1242	NC	0.49 U	0.48 U	0.48 U	0.49 U	0.5 U	0.48 U	0.47 U	0.48 U	0.48 U
PCB-aroclor 1248	NC	0.49 U	0.48 U	0.48 U	0.49 U	0.5 U	0.48 U	0.47 U	0.48 U	0.48 U
PCB-aroclor 1254	0.32 <sup>3</sup>	0.49 U	0.48 U	0.48 U	0.49 U	0.5 U	0.48 U	0.47 U	0.48 U	0.48 U
PCB-aroclor 1260	NC	0.49 U	0.48 U	0.48 U	0.49 U	0.5 U	0.48 U	0.47 U	0.48 U	0.48 U
Total PCBs	0.1 <sup>2</sup>	0.49 U	0.48 U	0.48 U	0.49 U	0.5 U	0.48 U	0.47 U	0.48 U	0.48 U

Notes:

<sup>1</sup> Model Toxics Control Act (MTCA) Cleanup Regulation Chapter 173-340 WAC. MTCA Method A cleanup levels are presented for chemicals that have Method A criteria. Method B cleanup levels are represented for chemicals that do not have Method A criteria.

<sup>2</sup> MTCA Method A cleanup level.

<sup>3</sup> MTCA Method B cleanup level.

<sup>4</sup> Considered a carcinogenic polycyclic aromatic hydrocarbon (cPAH) under WAC 173-349-708(8)(e).

<sup>5</sup> cPAH testing and regulatory evaluation is completed for individual carcinogenic compounds as well as the for the summation of the mixture of the seven carcinogenic PAHs (known as Ecology's toxicity equivalency methodology). The summation procedure is completed using toxicity equivalency factors for each individual compound which are then added to produce a toxicity equivalency quotient (TEQ) which is then compared to the MTCA cleanup level of 0.1 mg/kg (or 100 µg/kg). Calculations were performed on samples with detections only.

U = The analyte was not detected at a concentration greater than the given reporting limit as shown

J = The analyte concentration is estimated

mg/l = milligram per liter

µg/l = microgram per liter

NC = Cleanup level not established by Washington State Department of Ecology

ND = cPAHs were not detected. Therefore, a total cPAH toxic equivalency quotient (TEQ) was not calculated.

Highlighted items indicate that the chemical concentration is greater than the MTCA cleanup level.

Values presented in **bold** indicate that the chemical was detected in the specific sample.

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TABLE E-3  
 CHEMICAL ANALYTICAL RESULTS FOR GROUNDWATER - OCTOBER/NOVEMBER  
 318 STATE AVENUE NE  
 OLYMPIA, WASHINGTON

Analyte	MTCA <sup>1</sup> Cleanup Level	MW01 10/30/2008	MW02 10/30/2008	MW03 10/30/2008	MW04 10/30/2008	MW05 10/31/2008	MW06 10/31/2008	MW07 10/31/2008	MW08 10/31/2008	MW09 10/31/2008	MW10 11/4/2008	MW11 11/4/2008	MW12 11/4/2008	MW13 11/4/2008	MW14 11/6/2008	MW15 11/6/2008	MW16 11/6/2008
<b>Total Metals (mg/l)</b>																	
Arsenic	0.005 <sup>2</sup>	0.013	0.0093	0.0059	0.012	0.014	0.0065	0.0036	0.0062	0.0093	0.0047	0.016	0.0064	0.063	0.0045	0.012	0.0036
Lead	0.015 <sup>2</sup>	0.002 U	0.004	0.002 U	0.0034	0.0074	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Mercury	0.002 <sup>2</sup>	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
<b>Dissolved Metals (mg/l)</b>																	
Arsenic	0.005 <sup>2</sup>	0.014	0.0095	0.0058	0.017	0.015	0.0074	0.005	0.0058	0.0097	0.0059	0.017	0.0093	0.062	0.0056	0.013	0.0039
Lead	0.015 <sup>2</sup>	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Mercury	0.002 <sup>2</sup>	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
<b>Volatile Organic Compounds (µg/l)</b>																	
1,1,1,2-Tetrachloroethane	1.7 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200 <sup>2</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1,2,2-Tetrachloroethane	0.22 <sup>3</sup>	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-Trichloroethane	0.77 <sup>3</sup>	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
1,1-Dichloroethane	1,600 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	400 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloropropene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichloropropane	0.0063 <sup>3</sup>	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
1,2,4-Trichlorobenzene	80 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	400 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.031 <sup>3</sup>	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,2-Dichlorobenzene	720 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5 <sup>2</sup>	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloropropane	0.64 <sup>3</sup>	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,3,5-Trimethylbenzene	400 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1.8 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dinitrobenzene	6.4 <sup>3</sup>	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2-Dichloropropane	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Chlorotoluene	160 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Chlorotoluene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	5 <sup>2</sup>	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.95	0.7	0.37 U	0.37 U	0.4	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Bromobenzene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	5.5 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	11 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	0.34 <sup>3</sup>	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
CFC-11	2,400 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CFC-12	1,600 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	160 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Analyte	MTCA <sup>1</sup> Cleanup Level	MW01 10/30/2008	MW02 10/30/2008	MW03 10/30/2008	MW04 10/30/2008	MW05 10/31/2008	MW06 10/31/2008	MW07 10/31/2008	MW08 10/31/2008	MW09 10/31/2008	MW10 11/4/2008	MW11 11/4/2008	MW12 11/4/2008	MW13 11/4/2008	MW14 11/6/2008	MW15 11/6/2008	MW16 11/6/2008
Chloroethane	15 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7.2 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	3.4 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	80 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	0.52 <sup>3</sup>	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Dibromomethane	80 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorobromomethane	0.71 <sup>3</sup>	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Ethylbenzene	700 <sup>2</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylene dibromide	0.01 <sup>2</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorobutadiene	0.56 <sup>3</sup>	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
Isopropylbenzene (Cumene)	800 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5 <sup>2</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Naphthalene	160 <sup>2,3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p-Isopropyltoluene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Sec-Butylbenzene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1.5 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tert-Butylbenzene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5 <sup>2</sup>	0.47 U	0.47 U	0.47 U	0.47 U	<b>0.98</b>	<b>0.8</b>	<b>0.76</b>	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	<b>0.49</b>	0.47 U	<b>0.5</b>
Toluene	1,000 <sup>2</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total Xylenes	1,000 <sup>2</sup>	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Trans-1,2-Dichloroethene	160 <sup>3</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trans-1,3-Dichloropropene	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5 <sup>2</sup>	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Vinyl Chloride	0.2 <sup>2</sup>	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
<b>Semivolatile Organic Compounds (µg/l)</b>																	
1,2,4-Trichlorobenzene	80 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	720 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,3-Dichlorobenzene	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,3-Dinitrobenzene	1.6 <sup>3</sup>	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	1.8 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2,2'-Oxybis[1-chloropropane]	0.63 <sup>3</sup>	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol	480 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2,3,5,6-Tetrachlorophenol	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2,4,5-Trichlorophenol	800 <sup>3</sup>	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	4 <sup>3</sup>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>	<b>10 U</b>
2,4-Dichlorophenol	24 <sup>3</sup>	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	160 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2,4-Dinitrophenol	32 <sup>3</sup>	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	32 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2,6-Dinitrotoluene	16 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Chloronaphthalene	640 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Chlorophenol	40 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Nitroaniline	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Analyte	MTCA <sup>1</sup> Cleanup Level	MW01 10/30/2008	MW02 10/30/2008	MW03 10/30/2008	MW04 10/30/2008	MW05 10/31/2008	MW06 10/31/2008	MW07 10/31/2008	MW08 10/31/2008	MW09 10/31/2008	MW10 11/4/2008	MW11 11/4/2008	MW12 11/4/2008	MW13 11/4/2008	MW14 11/6/2008	MW15 11/6/2008	MW16 11/6/2008
4,6-Dinitro-2-Methylphenol	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl phenyl ether	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Chloro-3-Methylphenol	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	32 <sup>3</sup>	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-Phenylether	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Nitroaniline	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Aniline	7.7 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(ghi)perylene	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzyl Alcohol	2,400 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Chloroethoxy)Methane	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Chloroethyl)Ether	0.04 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Ethylhexyl) Phthalate	6.3 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Butyl benzyl phthalate	3,200 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Carbazole	4.4 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibenzofuran	32 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibutyl phthalate	1,600 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Diethyl phthalate	13,000 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dimethyl phthalate	16,000 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Di-N-Octyl Phthalate	320 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Hexachlorobenzene	0.055 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Hexachlorobutadiene	0.56 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Hexachlorocyclopentadiene	48 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Hexachloroethane	3.1 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	73 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isophorone	46 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
m-Nitroaniline	NC	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	4 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
N-Nitrosodi-n-propylamine	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
N-Nitrosodiphenylamine	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
o-Cresol	400 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Pentachlorophenol	0.73 <sup>3</sup>	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Phenol	4,800 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Pyridine	8 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
<b>Polycyclic Aromatic Hydrocarbons (µg/l)</b>																	
1-Methylnaphthalene	2.4 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene	32 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acenaphthene	960 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acenaphthylene	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Anthracene	4,800 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benz[a]anthracene <sup>4</sup>	NC	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Benzo(a)pyrene <sup>4</sup>	0.1 <sup>2</sup>	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Benzo(b)fluoranthene <sup>4</sup>	NC	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Benzo(k)fluoranthene <sup>4</sup>	NC	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Chrysene <sup>4</sup>	NC	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

Analyte	MTCA <sup>1</sup> Cleanup Level	MW01 10/30/2008	MW02 10/30/2008	MW03 10/30/2008	MW04 10/30/2008	MW05 10/31/2008	MW06 10/31/2008	MW07 10/31/2008	MW08 10/31/2008	MW09 10/31/2008	MW10 11/4/2008	MW11 11/4/2008	MW12 11/4/2008	MW13 11/4/2008	MW14 11/6/2008	MW15 11/6/2008	MW16 11/6/2008
Dibenzo(a,h)anthracene <sup>4</sup>	NC	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Fluoranthene	640 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Fluorene	640 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Indeno(1,2,3-cd)pyrene <sup>4</sup>	NC	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Naphthalene	160 <sup>2,3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Pyrene	480 <sup>3</sup>	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
<b>Carcinogenic Polycyclic Aromatic Hydrocarbons<sup>5</sup></b>	0.12	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

## Notes:

<sup>1</sup> Model Toxics Control Act (MTCA) Cleanup Regulation Chapter 173-340 WAC. MTCA Method A cleanup levels are presented for chemicals that have Method A criteria. Method B cleanup levels are represented for chemicals that do not have Method A criteria.

<sup>2</sup> MTCA Method A cleanup level

<sup>3</sup> MTCA Method B cleanup level

<sup>4</sup> Considered a carcinogenic polycyclic aromatic hydrocarbon (cPAH) under WAC 173-349-708(8)(e).

<sup>5</sup> cPAH testing and regulatory evaluation is completed for individual carcinogenic compounds as well as the for the summation of the mixture of the seven carcinogenic PAHs (known as Ecology's toxicity equivalency methodology). The summation procedure is completed using toxicity equivalency factors for each individual compound which are then added to produce a toxicity equivalency quotient (TEQ) which is then compared to the MTCA cleanup level of 0.1 mg/kg (or 100 µg/kg). Calculations were performed on samples with detections only.

NC = A cleanup criteria is currently not available for this chemical

ND = cPAHs were not detected, therefore, a total cPAH toxic equivalency quotient (TEQ) was not calculated

U = The analyte was not detected at a concentration greater than the given reporting limit as shown

mg/l = milligram per liter

µg/l = microgram per liter

-- = Chemical analysis was not performed

Values presented in **bold** indicate that the chemical was detected in the specific sample

Highlighted items indicate that the chemical concentration is greater than the MTCA cleanup level

TACO:\0\0415049\02\Finals\041504902\_Tables\_021909.xls

***APPENDIX F***  
***CHEMICAL ANALYTICAL LABORATORY DATA REPORTS***

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August 16, 2006

Kevin Broom  
Geo Engineers - Tacoma  
1101 Fawcett Ave, Suite 200  
Tacoma, WA/USA 98402

RE: TDO

Enclosed are the results of analyses for samples received by the laboratory on 07/21/06 15:15.  
The following list is a summary of the Work Orders contained in this report, generated on 08/16/06  
12:15.

If you have any questions concerning this report, please feel free to contact me.

---

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
BPG0504	TDO	0415-049-00

---



<b>Geo Engineers - Tacoma</b> 1101 Fawcett Ave, Suite 200 Tacoma, WA/USA 98402	Project Name: <b>TDO</b>	Report Created:
	Project Number: 0415-049-00	08/16/06 12:15
	Project Manager: Kevin Broom	

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PP01-W	BPG0504-01	Water	07/19/06 14:00	07/21/06 15:15
PP02-W	BPG0504-02	Water	07/19/06 12:30	07/21/06 15:15
PP03-W	BPG0504-03	Water	07/19/06 11:30	07/21/06 15:15
PP04-W	BPG0504-04	Water	07/20/06 10:20	07/21/06 15:15
PP05-W	BPG0504-05	Water	07/19/06 16:00	07/21/06 15:15
PP06-W	BPG0504-06	Water	07/20/06 12:00	07/21/06 15:15
PP07-W	BPG0504-07	Water	07/20/06 13:00	07/21/06 15:15
PP08-W	BPG0504-08	Water	07/20/06 14:20	07/21/06 15:15
PP01-2-6	BPG0504-10	Soil	07/19/06 14:15	07/21/06 15:15
PP02-3-6	BPG0504-15	Soil	07/19/06 12:15	07/21/06 15:15
PP03-2-6	BPG0504-19	Soil	07/19/06 09:45	07/21/06 15:15
PP04-3-6	BPG0504-23	Soil	07/20/06 09:40	07/21/06 15:15
PP05-3-10	BPG0504-27	Soil	07/19/06 15:55	07/21/06 15:15
PP06-2-6	BPG0504-29	Soil	07/20/06 11:25	07/21/06 15:15
PP07-2-6	BPG0504-33	Soil	07/20/06 12:30	07/21/06 15:15
PP08-3-6	BPG0504-37	Soil	07/20/06 14:15	07/21/06 15:15

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Joy B Chang, Project Manager





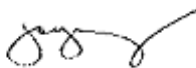
<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Total Metals by EPA 6000/7000 Series Methods**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-01 (PP01-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 14:00</b>				
Arsenic	EPA 6020	<b>0.00811</b>	----	0.00100	mg/l	1x	6G25024	07/25/06 10:19	07/27/06 04:34	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	<b>0.00135</b>	----	0.00100	"	"	"	"	"	
Lead	"	ND	----	0.00100	"	"	"	"	"	
Mercury	EPA 7470A	ND	----	0.000200	"	"	6G28043	07/28/06 17:03	07/31/06 13:30	
<b>BPG0504-02 (PP02-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 12:30</b>				
Arsenic	EPA 6020	<b>0.00141</b>	----	0.00100	mg/l	1x	6G25024	07/25/06 10:19	07/27/06 04:40	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	<b>0.00231</b>	----	0.00100	"	"	"	"	"	
Lead	"	ND	----	0.00100	"	"	"	"	"	
Mercury	EPA 7470A	ND	----	0.000200	"	"	6G28043	07/28/06 17:03	07/31/06 13:33	
<b>BPG0504-03 (PP03-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 11:30</b>				
Arsenic	EPA 6020	<b>0.00292</b>	----	0.00100	mg/l	1x	6G25024	07/25/06 10:19	07/27/06 04:46	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	<b>0.00150</b>	----	0.00100	"	"	"	"	"	
Lead	"	ND	----	0.00100	"	"	"	"	"	
Mercury	EPA 7470A	ND	----	0.000200	"	"	6G28045	07/28/06 17:13	07/29/06 18:36	
<b>BPG0504-04 (PP04-W)</b>		<b>Water</b>				<b>Sampled: 07/20/06 10:20</b>				
Arsenic	EPA 6020	<b>0.00298</b>	----	0.00100	mg/l	1x	6G25024	07/25/06 10:19	07/27/06 04:51	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	<b>0.00487</b>	----	0.00100	"	"	"	"	"	
Lead	"	ND	----	0.00100	"	"	"	"	"	
Mercury	EPA 7470A	ND	----	0.000200	"	"	6G28045	07/28/06 17:13	07/29/06 18:39	
<b>BPG0504-05 (PP05-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 16:00</b>				
Arsenic	EPA 6020	<b>0.00293</b>	----	0.00100	mg/l	1x	6G25024	07/25/06 10:19	07/27/06 04:57	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	<b>0.00500</b>	----	0.00100	"	"	"	"	"	
Lead	"	<b>0.00177</b>	----	0.00100	"	"	"	"	"	
Mercury	EPA 7470A	ND	----	0.000200	"	"	6G28045	07/28/06 17:13	07/29/06 18:41	

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	Report Created:
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	08/16/06 12:15
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	

**Total Metals by EPA 6000/7000 Series Methods**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-06 (PP06-W)</b>		<b>Water</b>				<b>Sampled: 07/20/06 12:00</b>				
Arsenic	EPA 6020	ND	----	0.00100	mg/l	1x	6G25024	07/25/06 10:19	07/27/06 05:03	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	ND	----	0.00100	"	"	"	"	"	
Lead	"	ND	----	0.00100	"	"	"	"	"	
Mercury	EPA 7470A	ND	----	0.000200	"	"	6G28045	07/28/06 17:13	07/29/06 18:44	
<b>BPG0504-07 (PP07-W)</b>		<b>Water</b>				<b>Sampled: 07/20/06 13:00</b>				
Arsenic	EPA 6020	ND	----	0.00100	mg/l	1x	6G25024	07/25/06 10:19	07/27/06 05:09	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	ND	----	0.00100	"	"	"	"	"	
Lead	"	ND	----	0.00100	"	"	"	"	"	
Mercury	EPA 7470A	ND	----	0.000200	"	"	6G28045	07/28/06 17:13	07/29/06 18:46	
<b>BPG0504-08 (PP08-W)</b>		<b>Water</b>				<b>Sampled: 07/20/06 14:20</b>				
Arsenic	EPA 6020	ND	----	0.00100	mg/l	1x	6G25024	07/25/06 10:19	07/27/06 05:26	
Cadmium	"	ND	----	0.00100	"	"	"	"	"	
Chromium	"	ND	----	0.00100	"	"	"	"	"	
Lead	"	ND	----	0.00100	"	"	"	"	"	
Mercury	EPA 7470A	ND	----	0.000200	"	"	6G28045	07/28/06 17:13	07/29/06 18:49	
<b>BPG0504-10 (PP01-2-6)</b>		<b>Soil</b>				<b>Sampled: 07/19/06 14:15</b>				
<b>Arsenic</b>	EPA 6020	<b>3.78</b>	----	0.600	mg/kg dry	1x	6G25055	07/24/06 09:55	07/26/06 20:58	
Cadmium	"	ND	----	0.600	"	"	"	"	"	
<b>Chromium</b>	"	<b>22.9</b>	----	0.600	"	"	"	"	"	
<b>Lead</b>	"	<b>124</b>	----	0.600	"	"	"	"	"	
Mercury	EPA 7471A	<b>2.30</b>	----	0.932	"	2x	6G27061	07/27/06 17:47	07/28/06 13:21	
<b>BPG0504-15 (PP02-3-6)</b>		<b>Soil</b>				<b>Sampled: 07/19/06 12:15</b>				
<b>Arsenic</b>	EPA 6020	<b>1.92</b>	----	0.607	mg/kg dry	1x	6G25055	07/24/06 09:55	07/26/06 21:04	
Cadmium	"	ND	----	0.607	"	"	"	"	"	
<b>Chromium</b>	"	<b>18.8</b>	----	0.607	"	"	"	"	"	
<b>Lead</b>	"	<b>3.76</b>	----	0.607	"	"	"	"	"	
Mercury	EPA 7471A	ND	----	0.456	"	"	6G27061	07/27/06 17:47	07/28/06 11:48	

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Joy B Chang, Project Manager



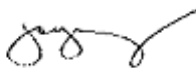
<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	Report Created:
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	08/16/06 12:15
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	

**Total Metals by EPA 6000/7000 Series Methods**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-19 (PP03-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 09:45</b>					
Arsenic	EPA 6020	2.74	----	0.524	mg/kg dry	1x	6G25055	07/24/06 09:55	07/26/06 21:09	
Cadmium	"	ND	----	0.524	"	"	"	"	"	
Chromium	"	25.7	----	0.524	"	"	"	"	"	
Lead	"	9.43	----	0.524	"	"	"	"	"	
Mercury	EPA 7471A	ND	----	0.472	"	"	6G27061	07/27/06 17:47	07/28/06 11:50	
<b>BPG0504-23 (PP04-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 09:40</b>					
Arsenic	EPA 6020	2.44	----	0.355	mg/kg dry	1x	6G25055	07/24/06 09:55	07/26/06 21:15	
Cadmium	"	ND	----	0.355	"	"	"	"	"	
Chromium	"	24.7	----	0.355	"	"	"	"	"	
Lead	"	14.3	----	0.355	"	"	"	"	"	
Mercury	EPA 7471A	ND	----	0.485	"	"	6G27061	07/27/06 17:47	07/28/06 11:53	
<b>BPG0504-27 (PP05-3-10)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 15:55</b>					
Arsenic	EPA 6020	2.04	----	0.570	mg/kg dry	1x	6G25055	07/24/06 09:55	07/26/06 21:32	
Cadmium	"	ND	----	0.570	"	"	"	"	"	
Chromium	"	25.1	----	0.570	"	"	"	"	"	
Lead	"	27.1	----	0.570	"	"	"	"	"	
Mercury	EPA 7471A	ND	----	0.420	"	"	6G27061	07/27/06 17:47	07/28/06 11:56	
<b>BPG0504-29 (PP06-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 11:25</b>					
Arsenic	EPA 6020	1.73	----	0.416	mg/kg dry	1x	6G25055	07/24/06 09:55	07/26/06 21:38	
Cadmium	"	ND	----	0.416	"	"	"	"	"	
Chromium	"	16.5	----	0.416	"	"	"	"	"	
Lead	"	1.59	----	0.416	"	"	"	"	"	
Mercury	EPA 7471A	ND	----	0.461	"	"	6G27061	07/27/06 17:47	07/28/06 11:58	
<b>BPG0504-33 (PP07-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 12:30</b>					
Arsenic	EPA 6020	1.72	----	0.486	mg/kg dry	1x	6G25055	07/24/06 09:55	07/26/06 21:55	
Cadmium	"	ND	----	0.486	"	"	"	"	"	
Chromium	"	22.5	----	0.486	"	"	"	"	"	
Lead	"	3.20	----	0.486	"	"	"	"	"	
Mercury	EPA 7471A	ND	----	0.405	"	"	6G27061	07/27/06 17:47	07/28/06 12:01	

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager




<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Total Metals by EPA 6000/7000 Series Methods**  
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-37 (PP08-3-6)</b>										
		<b>Soil</b>					<b>Sampled: 07/20/06 14:15</b>			
<b>Arsenic</b>	EPA 6020	<b>1.62</b>	----	0.561	mg/kg dry	1x	6G25055	07/24/06 09:55	07/26/06 22:01	
Cadmium	"	ND	----	0.561	"	"	"	"	"	
<b>Chromium</b>	"	<b>20.5</b>	----	0.561	"	"	"	"	"	
<b>Lead</b>	"	<b>1.47</b>	----	0.561	"	"	"	"	"	
Mercury	EPA 7471A	ND	----	0.492	"	"	6G27061	07/27/06 17:47	07/28/06 12:03	

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method)**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-15 (PP02-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 12:15</b>					
Acetone	EPA 8260B	ND	----	25.4	ug/kg dry	1x	6G25050	07/25/06 08:50	07/25/06 16:05	
Benzene	"	ND	----	1.27	"	"	"	"	"	
Bromobenzene	"	ND	----	4.23	"	"	"	"	"	
Bromochloromethane	"	ND	----	4.23	"	"	"	"	"	
Bromodichloromethane	"	ND	----	4.23	"	"	"	"	"	
Bromoform	"	ND	----	4.23	"	"	"	"	"	
Bromomethane	"	ND	----	8.46	"	"	"	"	"	
2-Butanone	"	ND	----	12.7	"	"	"	"	"	
n-Butylbenzene	"	ND	----	4.23	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	4.23	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	4.23	"	"	"	"	"	
Carbon disulfide	"	ND	----	2.54	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	4.23	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.69	"	"	"	"	"	
Chloroethane	"	ND	----	4.23	"	"	"	"	"	
Chloroform	"	ND	----	2.11	"	"	"	"	"	
Chloromethane	"	ND	----	8.46	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	4.23	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	4.23	"	"	"	"	"	
Dibromochloromethane	"	ND	----	4.23	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	8.46	"	"	"	"	"	
1,2-Dibromoethane (EDB)	"	ND	----	4.23	"	"	"	"	"	
Dibromomethane	"	ND	----	4.23	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	4.23	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	4.23	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	4.23	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	4.23	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.69	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	1.06	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	2.54	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	2.54	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	2.11	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	4.23	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	4.23	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	8.46	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	4.23	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	4.23	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.06	"	"	"	"	"	
Ethylbenzene	"	ND	----	3.38	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	8.46	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	0.846	"	"	"	"	"	
2-Hexanone	"	ND	----	16.9	"	"	"	"	"	
Isopropylbenzene	"	ND	----	4.23	"	"	"	"	"	

Q-40

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method)**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-15 (PP02-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 12:15</b>						
p-Isopropyltoluene	EPA 8260B	ND	----	4.23	ug/kg dry	1x	6G25050	07/25/06 08:50	07/25/06 16:05	Q-41
4-Methyl-2-pentanone	"	ND	----	16.9	"	"	"	"	"	
Methylene chloride	"	ND	----	2.96	"	"	"	"	"	
Naphthalene	"	ND	----	8.46	"	"	"	"	"	
n-Propylbenzene	"	ND	----	4.23	"	"	"	"	"	
Styrene	"	ND	----	0.846	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	8.46	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	8.46	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	4.23	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	4.23	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.69	"	"	"	"	"	
Toluene	"	ND	----	1.27	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	2.11	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.06	"	"	"	"	"	
Trichloroethene	"	ND	----	2.11	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	4.23	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	4.23	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	4.23	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	4.23	"	"	"	"	"	
Vinyl chloride	"	ND	----	2.11	"	"	"	"	"	
o-Xylene	"	ND	----	4.23	"	"	"	"	"	
m,p-Xylene	"	ND	----	4.23	"	"	"	"	"	
Total Xylenes	"	ND	----	8.46	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			94.1%		60 - 140 %	"				"
<i>Toluene-d8</i>			99.4%		60 - 140 %	"				"
<i>4-BFB</i>			106%		60 - 140 %	"				"

<b>BPG0504-29 (PP06-2-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 11:25</b>						
Acetone	EPA 8260B	ND	----	13.8	ug/kg dry	1x	6G25050	07/25/06 08:50	07/25/06 16:29	
Benzene	"	ND	----	0.692	"	"	"	"	"	
Bromobenzene	"	ND	----	2.31	"	"	"	"	"	
Bromochloromethane	"	ND	----	2.31	"	"	"	"	"	
Bromodichloromethane	"	ND	----	2.31	"	"	"	"	"	
Bromoform	"	ND	----	2.31	"	"	"	"	"	
Bromomethane	"	ND	----	4.61	"	"	"	"	"	
2-Butanone	"	ND	----	6.92	"	"	"	"	"	
n-Butylbenzene	"	ND	----	2.31	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	2.31	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	2.31	"	"	"	"	"	
Carbon disulfide	"	ND	----	1.38	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	2.31	"	"	"	"	"	
Chlorobenzene	"	ND	----	0.922	"	"	"	"	"	

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method)**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-29 (PP06-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 11:25</b>					
Chloroethane	EPA 8260B	ND	----	2.31	ug/kg dry	1x	6G25050	07/25/06 08:50	07/25/06 16:29	
Chloroform	"	ND	----	1.15	"	"	"	"	"	
Chloromethane	"	ND	----	4.61	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	2.31	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	2.31	"	"	"	"	"	
Dibromochloromethane	"	ND	----	2.31	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	4.61	"	"	"	"	"	
1,2-Dibromoethane (EDB)	"	ND	----	2.31	"	"	"	"	"	
Dibromomethane	"	ND	----	2.31	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	2.31	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	2.31	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	2.31	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	2.31	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	0.922	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	0.576	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	1.38	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	1.38	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	1.15	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	2.31	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	2.31	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	4.61	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	2.31	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	2.31	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	0.576	"	"	"	"	"	
Ethylbenzene	"	ND	----	1.84	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	4.61	"	"	"	"	"	Q-40
Methyl tert-butyl ether	"	ND	----	0.461	"	"	"	"	"	
2-Hexanone	"	ND	----	9.22	"	"	"	"	"	
Isopropylbenzene	"	ND	----	2.31	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	2.31	"	"	"	"	"	Q-41
4-Methyl-2-pentanone	"	ND	----	9.22	"	"	"	"	"	
Methylene chloride	"	ND	----	1.61	"	"	"	"	"	
Naphthalene	"	ND	----	4.61	"	"	"	"	"	
n-Propylbenzene	"	ND	----	2.31	"	"	"	"	"	
Styrene	"	ND	----	0.461	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	4.61	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	4.61	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	2.31	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	2.31	"	"	"	"	"	
Tetrachloroethene	"	ND	----	0.922	"	"	"	"	"	
Toluene	"	ND	----	0.692	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	1.15	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	0.576	"	"	"	"	"	

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Joy B Chang, Project Manager



**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
Tacoma, WA/USA 98402

Project Name: **TDO**

Project Number: 0415-049-00

Project Manager: Kevin Broom

Report Created:

08/16/06 12:15

**Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method)**

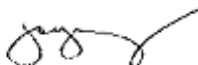
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-29 (PP06-2-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 11:25</b>						
Trichloroethene	EPA 8260B	ND	----	1.15	ug/kg dry	1x	6G25050	07/25/06 08:50	07/25/06 16:29	
Trichlorofluoromethane	"	ND	----	2.31	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	2.31	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	2.31	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	2.31	"	"	"	"	"	
Vinyl chloride	"	ND	----	1.15	"	"	"	"	"	
o-Xylene	"	ND	----	2.31	"	"	"	"	"	
m,p-Xylene	"	ND	----	2.31	"	"	"	"	"	
Total Xylenes	"	ND	----	4.61	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			95.7%		60 - 140 %	"				"
<i>Toluene-d8</i>			101%		60 - 140 %	"				"
<i>4-BFB</i>			103%		60 - 140 %	"				"

<b>BPG0504-37 (PP08-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 14:15</b>						
Acetone	EPA 8260B	ND	----	29.7	ug/kg dry	1x	6G25050	07/25/06 08:50	07/25/06 16:53	
Benzene	"	ND	----	1.49	"	"	"	"	"	
Bromobenzene	"	ND	----	4.96	"	"	"	"	"	
Bromochloromethane	"	ND	----	4.96	"	"	"	"	"	
Bromodichloromethane	"	ND	----	4.96	"	"	"	"	"	
Bromoform	"	ND	----	4.96	"	"	"	"	"	
Bromomethane	"	ND	----	9.92	"	"	"	"	"	
2-Butanone	"	ND	----	14.9	"	"	"	"	"	
n-Butylbenzene	"	ND	----	4.96	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	4.96	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	4.96	"	"	"	"	"	
Carbon disulfide	"	ND	----	2.97	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	4.96	"	"	"	"	"	
Chlorobenzene	"	ND	----	1.98	"	"	"	"	"	
Chloroethane	"	ND	----	4.96	"	"	"	"	"	
Chloroform	"	ND	----	2.48	"	"	"	"	"	
Chloromethane	"	ND	----	9.92	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	4.96	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	4.96	"	"	"	"	"	
Dibromochloromethane	"	ND	----	4.96	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	9.92	"	"	"	"	"	
1,2-Dibromoethane (EDB)	"	ND	----	4.96	"	"	"	"	"	
Dibromomethane	"	ND	----	4.96	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	4.96	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	4.96	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	4.96	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	4.96	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	1.98	"	"	"	"	"	

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Joy B Chang, Project Manager





**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
 Tacoma, WA/USA 98402

Project Name: **TDO**

Project Number: 0415-049-00  
 Project Manager: Kevin Broom

Report Created:  
 08/16/06 12:15

**Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method)**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-37 (PP08-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 14:15</b>					
1,2-Dichloroethane	EPA 8260B	ND	----	1.24	ug/kg dry	1x	6G25050	07/25/06 08:50	07/25/06 16:53	
1,1-Dichloroethene	"	ND	----	2.97	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	2.97	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	2.48	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	4.96	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	4.96	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	9.92	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	4.96	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	4.96	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	1.24	"	"	"	"	"	
Ethylbenzene	"	ND	----	3.97	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	9.92	"	"	"	"	"	Q-40
Methyl tert-butyl ether	"	ND	----	0.992	"	"	"	"	"	
2-Hexanone	"	ND	----	19.8	"	"	"	"	"	
Isopropylbenzene	"	ND	----	4.96	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	4.96	"	"	"	"	"	Q-41
4-Methyl-2-pentanone	"	ND	----	19.8	"	"	"	"	"	
Methylene chloride	"	ND	----	3.47	"	"	"	"	"	
Naphthalene	"	ND	----	9.92	"	"	"	"	"	
n-Propylbenzene	"	ND	----	4.96	"	"	"	"	"	
Styrene	"	ND	----	0.992	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	9.92	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	9.92	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	4.96	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	"	ND	----	4.96	"	"	"	"	"	
Tetrachloroethene	"	ND	----	1.98	"	"	"	"	"	
Toluene	"	ND	----	1.49	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	2.48	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	1.24	"	"	"	"	"	
Trichloroethene	"	ND	----	2.48	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	4.96	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	4.96	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	4.96	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	4.96	"	"	"	"	"	
Vinyl chloride	"	ND	----	2.48	"	"	"	"	"	
o-Xylene	"	ND	----	4.96	"	"	"	"	"	
m,p-Xylene	"	ND	----	4.96	"	"	"	"	"	
Total Xylenes	"	ND	----	9.92	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			97.5%		60 - 140 %	"				"
<i>Toluene-d8</i>			102%		60 - 140 %	"				"
<i>4-BFB</i>			102%		60 - 140 %	"				"

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Joy B Chang, Project Manager



**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
 Tacoma, WA/USA 98402

Project Name: **TDO**

Project Number: 0415-049-00  
 Project Manager: Kevin Broom

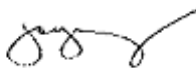
Report Created:  
 08/16/06 12:15

**Volatile Organic Compounds by EPA Method 8260B**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-02 (PP02-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 12:30</b>				
Acetone	EPA 8260B	ND	----	10.0	ug/l	1x	6G26054	07/26/06 14:59	07/27/06 02:45	
Benzene	"	ND	----	0.200	"	"	"	"	"	"
Bromobenzene	"	ND	----	0.500	"	"	"	"	"	"
Bromochloromethane	"	ND	----	0.200	"	"	"	"	"	"
Bromodichloromethane	"	ND	----	0.200	"	"	"	"	"	"
Bromoform	"	ND	----	0.200	"	"	"	"	"	"
Bromomethane	"	ND	----	2.00	"	"	"	"	"	"
2-Butanone	"	ND	----	2.00	"	"	"	"	"	"
n-Butylbenzene	"	ND	----	0.200	"	"	"	"	"	"
sec-Butylbenzene	"	ND	----	0.200	"	"	"	"	"	"
tert-Butylbenzene	"	ND	----	0.500	"	"	"	"	"	"
Carbon disulfide	"	ND	----	0.500	"	"	"	"	"	"
Carbon tetrachloride	"	ND	----	0.200	"	"	"	"	"	"
Chlorobenzene	"	ND	----	0.200	"	"	"	"	"	"
Chloroethane	"	ND	----	1.00	"	"	"	"	"	"
Chloroform	"	ND	----	0.200	"	"	"	"	"	"
Chloromethane	"	ND	----	1.00	"	"	"	"	"	"
2-Chlorotoluene	"	ND	----	0.500	"	"	"	"	"	"
4-Chlorotoluene	"	ND	----	0.500	"	"	"	"	"	"
Dibromochloromethane	"	ND	----	0.200	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	"	ND	----	0.500	"	"	"	"	"	"
1,2-Dibromoethane	"	ND	----	0.200	"	"	"	"	"	"
Dibromomethane	"	ND	----	0.200	"	"	"	"	"	"
1,2-Dichlorobenzene	"	ND	----	0.200	"	"	"	"	"	"
1,3-Dichlorobenzene	"	ND	----	0.200	"	"	"	"	"	"
1,4-Dichlorobenzene	"	ND	----	0.200	"	"	"	"	"	"
Dichlorodifluoromethane	"	ND	----	0.500	"	"	"	"	"	"
1,1-Dichloroethane	"	ND	----	0.200	"	"	"	"	"	"
1,2-Dichloroethane	"	ND	----	0.200	"	"	"	"	"	"
1,1-Dichloroethene	"	ND	----	0.200	"	"	"	"	"	"
cis-1,2-Dichloroethene	"	ND	----	0.200	"	"	"	"	"	"
trans-1,2-Dichloroethene	"	ND	----	0.200	"	"	"	"	"	"
1,2-Dichloropropane	"	ND	----	0.200	"	"	"	"	"	"
1,3-Dichloropropane	"	ND	----	0.200	"	"	"	"	"	"
2,2-Dichloropropane	"	ND	----	0.500	"	"	"	"	"	"
1,1-Dichloropropene	"	ND	----	0.200	"	"	"	"	"	"
cis-1,3-Dichloropropene	"	ND	----	0.200	"	"	"	"	"	"
trans-1,3-Dichloropropene	"	ND	----	0.200	"	"	"	"	"	"
Ethylbenzene	"	ND	----	0.200	"	"	"	"	"	"
Hexachlorobutadiene	"	ND	----	2.50	"	"	"	"	"	"
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	"
n-Hexane	"	ND	----	1.00	"	"	"	"	"	"
2-Hexanone	"	ND	----	2.00	"	"	"	"	"	"

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

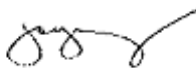
**Volatile Organic Compounds by EPA Method 8260B**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-02 (PP02-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 12:30</b>				
Isopropylbenzene	EPA 8260B	ND	----	0.500	ug/l	1x	6G26054	07/26/06 14:59	07/27/06 02:45	
p-Isopropyltoluene	"	ND	----	0.200	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	2.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.50	"	"	"	"	"	
n-Propylbenzene	"	ND	----	0.500	"	"	"	"	"	
Styrene	"	ND	----	0.500	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	0.200	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	----	0.500	"	"	"	"	"	
Tetrachloroethene	"	ND	----	0.200	"	"	"	"	"	
Toluene	"	ND	----	0.200	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	0.200	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	0.200	"	"	"	"	"	
Trichloroethene	"	ND	----	0.200	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	0.500	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	0.500	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	0.200	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Vinyl chloride	"	ND	----	0.200	"	"	"	"	"	
o-Xylene	"	ND	----	0.250	"	"	"	"	"	
m,p-Xylene	"	ND	----	0.500	"	"	"	"	"	
Total Xylenes	"	ND	----	0.750	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			99.0%		70 - 130 %	"				"
<i>Toluene-d8</i>			96.8%		70 - 130 %	"				"
<i>4-BFB</i>			96.5%		70 - 130 %	"				"

<b>BPG0504-06 (PP06-W)</b>		<b>Water</b>				<b>Sampled: 07/20/06 12:00</b>				
Acetone	EPA 8260B	ND	----	10.0	ug/l	1x	6G26054	07/26/06 14:59	07/27/06 04:25	
<b>Benzene</b>	"	<b>0.540</b>	----	0.200	"	"	"	"	"	
Bromobenzene	"	ND	----	0.500	"	"	"	"	"	
Bromochloromethane	"	ND	----	0.200	"	"	"	"	"	
Bromodichloromethane	"	ND	----	0.200	"	"	"	"	"	
Bromoform	"	ND	----	0.200	"	"	"	"	"	
Bromomethane	"	ND	----	2.00	"	"	"	"	"	
2-Butanone	"	ND	----	2.00	"	"	"	"	"	
n-Butylbenzene	"	ND	----	0.200	"	"	"	"	"	
sec-Butylbenzene	"	ND	----	0.200	"	"	"	"	"	
tert-Butylbenzene	"	ND	----	0.500	"	"	"	"	"	
Carbon disulfide	"	ND	----	0.500	"	"	"	"	"	
Carbon tetrachloride	"	ND	----	0.200	"	"	"	"	"	

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Joy B Chang, Project Manager



**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
 Tacoma, WA/USA 98402

Project Name: **TDO**

Project Number: 0415-049-00

Project Manager: Kevin Broom

Report Created:

08/16/06 12:15

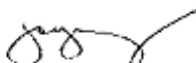
**Volatile Organic Compounds by EPA Method 8260B**

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-06 (PP06-W)</b>		<b>Water</b>		<b>Sampled: 07/20/06 12:00</b>						
Chlorobenzene	EPA 8260B	ND	----	0.200	ug/l	1x	6G26054	07/26/06 14:59	07/27/06 04:25	
Chloroethane	"	ND	----	1.00	"	"	"	"	"	
Chloroform	"	ND	----	0.200	"	"	"	"	"	
Chloromethane	"	ND	----	1.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	----	0.500	"	"	"	"	"	
4-Chlorotoluene	"	ND	----	0.500	"	"	"	"	"	
Dibromochloromethane	"	ND	----	0.200	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	----	0.500	"	"	"	"	"	
1,2-Dibromoethane	"	ND	----	0.200	"	"	"	"	"	
Dibromomethane	"	ND	----	0.200	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	0.200	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	0.200	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	0.200	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	----	0.500	"	"	"	"	"	
1,1-Dichloroethane	"	ND	----	0.200	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	0.200	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	0.200	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	0.200	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	0.200	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	0.200	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	0.200	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	0.500	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	0.200	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	0.200	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	0.200	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.200	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	2.50	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	1.00	"	"	"	"	"	
n-Hexane	"	ND	----	1.00	"	"	"	"	"	
2-Hexanone	"	ND	----	2.00	"	"	"	"	"	
Isopropylbenzene	"	ND	----	0.500	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	0.200	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	2.00	"	"	"	"	"	
Methylene chloride	"	ND	----	5.00	"	"	"	"	"	
Naphthalene	"	ND	----	2.50	"	"	"	"	"	
n-Propylbenzene	"	ND	----	0.500	"	"	"	"	"	
Styrene	"	ND	----	0.500	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	0.200	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	"	ND	----	0.500	"	"	"	"	"	
Tetrachloroethene	"	ND	----	0.200	"	"	"	"	"	
Toluene	"	ND	----	0.200	"	"	"	"	"	

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Joy B Chang, Project Manager



**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
 Tacoma, WA/USA 98402

Project Name: **TDO**

Project Number: 0415-049-00

Project Manager: Kevin Broom

Report Created:

08/16/06 12:15

**Volatile Organic Compounds by EPA Method 8260B**

TestAmerica - Seattle, WA

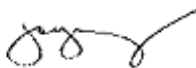
Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-06 (PP06-W)</b>		<b>Water</b>		<b>Sampled: 07/20/06 12:00</b>						
1,1,1-Trichloroethane	EPA 8260B	ND	----	0.200	ug/l	1x	6G26054	07/26/06 14:59	07/27/06 04:25	
1,1,2-Trichloroethane	"	ND	----	0.200	"	"	"	"	"	"
Trichloroethene	"	ND	----	0.200	"	"	"	"	"	"
Trichlorofluoromethane	"	ND	----	0.500	"	"	"	"	"	"
1,2,3-Trichloropropane	"	ND	----	0.500	"	"	"	"	"	"
1,2,4-Trimethylbenzene	"	ND	----	0.200	"	"	"	"	"	"
1,3,5-Trimethylbenzene	"	ND	----	0.500	"	"	"	"	"	"
Vinyl chloride	"	ND	----	0.200	"	"	"	"	"	"
o-Xylene	"	ND	----	0.250	"	"	"	"	"	"
m,p-Xylene	"	ND	----	0.500	"	"	"	"	"	"
Total Xylenes	"	ND	----	0.750	"	"	"	"	"	"

Surrogate(s): 1,2-DCA-d4 100% 70 - 130 % "  
 Toluene-d8 95.2% 70 - 130 % "  
 4-BFB 98.8% 70 - 130 % "

<b>BPG0504-08 (PP08-W)</b>		<b>Water</b>		<b>Sampled: 07/20/06 14:20</b>						
Acetone	EPA 8260B	ND	----	5.00	ug/l	1x	6G27057	07/27/06 08:26	07/27/06 13:16	
Benzene	"	ND	----	0.100	"	"	"	"	"	"
Bromobenzene	"	ND	----	0.250	"	"	"	"	"	"
Bromochloromethane	"	ND	----	0.100	"	"	"	"	"	"
Bromodichloromethane	"	ND	----	0.100	"	"	"	"	"	"
Bromoform	"	ND	----	0.100	"	"	"	"	"	"
Bromomethane	"	ND	----	1.00	"	"	"	"	"	"
2-Butanone	"	ND	----	1.00	"	"	"	"	"	"
n-Butylbenzene	"	ND	----	0.100	"	"	"	"	"	"
sec-Butylbenzene	"	ND	----	0.100	"	"	"	"	"	"
tert-Butylbenzene	"	ND	----	0.250	"	"	"	"	"	"
Carbon disulfide	"	ND	----	0.250	"	"	"	"	"	"
Carbon tetrachloride	"	ND	----	0.100	"	"	"	"	"	"
Chlorobenzene	"	ND	----	0.100	"	"	"	"	"	"
Chloroethane	"	ND	----	0.500	"	"	"	"	"	"
Chloroform	"	ND	----	0.100	"	"	"	"	"	"
Chloromethane	"	ND	----	0.500	"	"	"	"	"	"
2-Chlorotoluene	"	ND	----	0.250	"	"	"	"	"	"
4-Chlorotoluene	"	ND	----	0.250	"	"	"	"	"	"
Dibromochloromethane	"	ND	----	0.100	"	"	"	"	"	"
1,2-Dibromo-3-chloropropane	"	ND	----	0.250	"	"	"	"	"	"
1,2-Dibromoethane	"	ND	----	0.100	"	"	"	"	"	"
Dibromomethane	"	ND	----	0.100	"	"	"	"	"	"
1,2-Dichlorobenzene	"	ND	----	0.100	"	"	"	"	"	"
1,3-Dichlorobenzene	"	ND	----	0.100	"	"	"	"	"	"
1,4-Dichlorobenzene	"	ND	----	0.100	"	"	"	"	"	"

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Joy B Chang, Project Manager



**Geo Engineers - Tacoma**

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 Tacoma, WA/USA 98402

Project Name: **TDO**

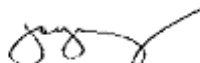
Project Number: 0415-049-00  
 Project Manager: Kevin Broom

Report Created:  
 08/16/06 12:15

**Volatile Organic Compounds by EPA Method 8260B**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-08 (PP08-W)</b>		<b>Water</b>				<b>Sampled: 07/20/06 14:20</b>				
Dichlorodifluoromethane	EPA 8260B	ND	----	0.250	ug/l	1x	6G27057	07/27/06 08:26	07/27/06 13:16	
1,1-Dichloroethane	"	ND	----	0.100	"	"	"	"	"	
1,2-Dichloroethane	"	ND	----	0.100	"	"	"	"	"	
1,1-Dichloroethene	"	ND	----	0.100	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	----	0.100	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	----	0.100	"	"	"	"	"	
1,2-Dichloropropane	"	ND	----	0.100	"	"	"	"	"	
1,3-Dichloropropane	"	ND	----	0.100	"	"	"	"	"	
2,2-Dichloropropane	"	ND	----	0.250	"	"	"	"	"	
1,1-Dichloropropene	"	ND	----	0.100	"	"	"	"	"	
cis-1,3-Dichloropropene	"	ND	----	0.100	"	"	"	"	"	
trans-1,3-Dichloropropene	"	ND	----	0.100	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.100	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	1.25	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	0.500	"	"	"	"	"	
n-Hexane	"	ND	----	0.500	"	"	"	"	"	
2-Hexanone	"	ND	----	1.00	"	"	"	"	"	
Isopropylbenzene	"	ND	----	0.250	"	"	"	"	"	
p-Isopropyltoluene	"	ND	----	0.100	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	----	1.00	"	"	"	"	"	
Methylene chloride	"	ND	----	2.50	"	"	"	"	"	
Naphthalene	"	ND	----	1.25	"	"	"	"	"	
n-Propylbenzene	"	ND	----	0.250	"	"	"	"	"	
Styrene	"	ND	----	0.250	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	----	0.500	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	0.500	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	----	0.100	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	"	ND	----	0.250	"	"	"	"	"	
Tetrachloroethene	"	ND	----	0.100	"	"	"	"	"	
Toluene	"	ND	----	0.100	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	----	0.100	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	----	0.100	"	"	"	"	"	
Trichloroethene	"	ND	----	0.100	"	"	"	"	"	
Trichlorofluoromethane	"	ND	----	0.250	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	----	0.250	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	----	0.100	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	----	0.250	"	"	"	"	"	
Vinyl chloride	"	ND	----	0.100	"	"	"	"	"	
o-Xylene	"	ND	----	0.125	"	"	"	"	"	
m,p-Xylene	"	ND	----	0.250	"	"	"	"	"	
Total Xylenes	"	ND	----	0.375	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>				95.0%		70 - 130 %	"			"

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Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds by EPA Method 8260B**  
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-08</b>	<b>(PP08-W)</b>									
		<b>Water</b>			<b>Sampled: 07/20/06 14:20</b>					
	<i>Toluene-d8</i>	95.5%			70 - 130 %	<i>1x</i>			07/27/06 13:16	
	<i>4-BFB</i>	97.5%			70 - 130 %	"			"	

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Polynuclear Aromatic Compounds by GC/MS with High Volume Injection**  
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-02 (PP02-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 12:30</b>				
Acenaphthene	EPA 8270C-HVI	ND	----	0.0943	ug/l	1x	6G25019	07/25/06 13:22	08/03/06 14:33	
Acenaphthylene	"	ND	----	0.0943	"	"	"	"	"	
Anthracene	"	ND	----	0.0943	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>0.0349</b>	----	0.00943	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.00943	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>0.0592</b>	----	0.00943	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.00943	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0943	"	"	"	"	"	
<b>Chrysene</b>	"	<b>0.0292</b>	----	0.00943	"	"	"	"	"	
Dibenz (a,h) anthracene	"	ND	----	0.00943	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>0.251</b>	----	0.0943	"	"	"	"	"	
Fluorene	"	ND	----	0.0943	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.00943	"	"	"	"	"	
1-Methylnaphthalene	"	ND	----	0.0943	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	0.0943	"	"	"	"	"	
Naphthalene	"	ND	----	0.0943	"	"	"	"	"	
Phenanthrene	"	ND	----	0.0943	"	"	"	"	"	
<b>Pyrene</b>	"	<b>0.136</b>	----	0.0943	"	"	"	"	"	
<i>Surrogate(s): Benzo (a) pyrene-d12</i>			51.1%		20 - 125 %	"				"
<i>1-Methylnaphthalene-d10</i>			75.3%		39 - 125 %	"				"

<b>BPG0504-05 (PP05-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 16:00</b>				
Acenaphthene	EPA 8270C-HVI	ND	----	0.0943	ug/l	1x	6G25019	07/25/06 13:22	08/03/06 15:06	
Acenaphthylene	"	ND	----	0.0943	"	"	"	"	"	
Anthracene	"	ND	----	0.0943	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>0.0105</b>	----	0.00943	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.00943	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.00943	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.00943	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0943	"	"	"	"	"	
<b>Chrysene</b>	"	<b>0.0128</b>	----	0.00943	"	"	"	"	"	
Dibenz (a,h) anthracene	"	ND	----	0.00943	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0943	"	"	"	"	"	
Fluorene	"	ND	----	0.0943	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.00943	"	"	"	"	"	
1-Methylnaphthalene	"	ND	----	0.0943	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	0.0943	"	"	"	"	"	
Naphthalene	"	ND	----	0.0943	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>0.0968</b>	----	0.0943	"	"	"	"	"	
Pyrene	"	ND	----	0.0943	"	"	"	"	"	
<i>Surrogate(s): Benzo (a) pyrene-d12</i>			26.9%		20 - 125 %	"				"

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Joy B Chang, Project Manager





<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Polynuclear Aromatic Compounds by GC/MS with High Volume Injection**  
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
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**BPG0504-05 (PP05-W)** **Water** **Sampled: 07/19/06 16:00**

*1-Methylnaphthalene-d10* 91.2% 39 - 125 % 1x 08/03/06 15:06

**BPG0504-06 (PP06-W)** **Water** **Sampled: 07/20/06 12:00**

Acenaphthene	EPA 8270C-HVI	ND	----	0.0943	ug/l	1x	6G25019	07/25/06 13:15	08/03/06 15:38	
Acenaphthylene	"	ND	----	0.0943	"	"	"	"	"	"
Anthracene	"	ND	----	0.0943	"	"	"	"	"	"
Benzo (a) anthracene	"	ND	----	0.00943	"	"	"	"	"	"
Benzo (a) pyrene	"	ND	----	0.00943	"	"	"	"	"	"
Benzo (b) fluoranthene	"	ND	----	0.00943	"	"	"	"	"	"
Benzo (k) fluoranthene	"	ND	----	0.00943	"	"	"	"	"	"
Benzo (ghi) perylene	"	ND	----	0.0943	"	"	"	"	"	"
Chrysene	"	ND	----	0.00943	"	"	"	"	"	"
Dibenz (a,h) anthracene	"	ND	----	0.00943	"	"	"	"	"	"
Fluoranthene	"	ND	----	0.0943	"	"	"	"	"	"
Fluorene	"	ND	----	0.0943	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	"	ND	----	0.00943	"	"	"	"	"	"
1-Methylnaphthalene	"	ND	----	0.0943	"	"	"	"	"	"
2-Methylnaphthalene	"	ND	----	0.0943	"	"	"	"	"	"
Naphthalene	"	ND	----	0.0943	"	"	"	"	"	"
Phenanthrene	"	ND	----	0.0943	"	"	"	"	"	"
Pyrene	"	ND	----	0.0943	"	"	"	"	"	"

*Surrogate(s): Benzo (a) pyrene-d12* 60.6% 20 - 125 % " "

*1-Methylnaphthalene-d10* 83.7% 39 - 125 % " "

**BPG0504-07 (PP07-W)** **Water** **Sampled: 07/20/06 13:00**

<b>Acenaphthene</b>	EPA 8270C-HVI	<b>0.969</b>	----	0.0943	ug/l	1x	6G25019	07/25/06 13:15	08/03/06 16:11	
Acenaphthylene	"	ND	----	0.0943	"	"	"	"	"	"
<b>Anthracene</b>	"	<b>0.218</b>	----	0.0943	"	"	"	"	"	"
<b>Benzo (a) anthracene</b>	"	<b>0.0324</b>	----	0.00943	"	"	"	"	"	"
<b>Benzo (a) pyrene</b>	"	<b>0.0429</b>	----	0.00943	"	"	"	"	"	"
<b>Benzo (b) fluoranthene</b>	"	<b>0.0682</b>	----	0.00943	"	"	"	"	"	"
Benzo (k) fluoranthene	"	ND	----	0.00943	"	"	"	"	"	"
Benzo (ghi) perylene	"	ND	----	0.0943	"	"	"	"	"	"
<b>Chrysene</b>	"	<b>0.0493</b>	----	0.00943	"	"	"	"	"	"
Dibenz (a,h) anthracene	"	ND	----	0.00943	"	"	"	"	"	"
<b>Fluoranthene</b>	"	<b>0.273</b>	----	0.0943	"	"	"	"	"	"
<b>Fluorene</b>	"	<b>0.456</b>	----	0.0943	"	"	"	"	"	"
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>0.0139</b>	----	0.00943	"	"	"	"	"	"
<b>1-Methylnaphthalene</b>	"	<b>0.555</b>	----	0.0943	"	"	"	"	"	"
<b>2-Methylnaphthalene</b>	"	<b>0.716</b>	----	0.0943	"	"	"	"	"	"
<b>Phenanthrene</b>	"	<b>0.878</b>	----	0.0943	"	"	"	"	"	"

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Polynuclear Aromatic Compounds by GC/MS with High Volume Injection**  
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
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**BPG0504-07 (PP07-W)** Water Sampled: 07/20/06 13:00

<b>Pyrene</b>	EPA 8270C-HVI	<b>0.220</b>	----	0.0943	ug/l	1x	6G25019	07/25/06 13:15	08/03/06 16:11	
<i>Surrogate(s): Benzo (a) pyrene-d12</i>			80.8%		20 - 125 %	"				"
<i>1-Methylnaphthalene-d10</i>			84.0%		39 - 125 %	"				"

**BPG0504-07RE1 (PP07-W)** Water Sampled: 07/20/06 13:00

<b>Naphthalene</b>	EPA 8270C-HVI	<b>3.78</b>	----	0.943	ug/l	10x	6G25019	07/25/06 13:15	08/04/06 16:23	
<i>Surrogate(s): Benzo (a) pyrene-d12</i>			70.2%		20 - 125 %	"				"
<i>1-Methylnaphthalene-d10</i>			80.7%		39 - 125 %	"				"

**BPG0504-08 (PP08-W)** Water Sampled: 07/20/06 14:20

Acenaphthene	EPA 8270C-HVI	ND	----	0.0943	ug/l	1x	6G25019	07/25/06 13:15	08/03/06 16:44	
Acenaphthylene	"	ND	----	0.0943	"	"	"	"	"	"
Anthracene	"	ND	----	0.0943	"	"	"	"	"	"
Benzo (a) anthracene	"	ND	----	0.00943	"	"	"	"	"	"
Benzo (a) pyrene	"	ND	----	0.00943	"	"	"	"	"	"
Benzo (b) fluoranthene	"	ND	----	0.00943	"	"	"	"	"	"
Benzo (k) fluoranthene	"	ND	----	0.00943	"	"	"	"	"	"
Benzo (ghi) perylene	"	ND	----	0.0943	"	"	"	"	"	"
Chrysene	"	ND	----	0.00943	"	"	"	"	"	"
Dibenz (a,h) anthracene	"	ND	----	0.00943	"	"	"	"	"	"
Fluoranthene	"	ND	----	0.0943	"	"	"	"	"	"
Fluorene	"	ND	----	0.0943	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	"	ND	----	0.00943	"	"	"	"	"	"
1-Methylnaphthalene	"	ND	----	0.0943	"	"	"	"	"	"
2-Methylnaphthalene	"	ND	----	0.0943	"	"	"	"	"	"
Naphthalene	"	ND	----	0.0943	"	"	"	"	"	"
Phenanthrene	"	ND	----	0.0943	"	"	"	"	"	"
Pyrene	"	ND	----	0.0943	"	"	"	"	"	"
<i>Surrogate(s): Benzo (a) pyrene-d12</i>			78.3%		20 - 125 %	"				"
<i>1-Methylnaphthalene-d10</i>			78.3%		39 - 125 %	"				"

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Conventional Chemistry Parameters by APHA/EPA Methods**  
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-10 (PP01-2-6)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 14:15</b>						
Hexavalent Chromium	EPA 7196A	ND	----	1.3	mg/kg dry	1x	6H08006	08/08/06 09:03	08/09/06 19:52	
<b>BPG0504-19 (PP03-2-6)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 09:45</b>						
Hexavalent Chromium	EPA 7196A	ND	----	1.1	mg/kg dry	1x	6H08006	08/08/06 09:03	08/09/06 19:52	
<b>BPG0504-23 (PP04-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 09:40</b>						
Hexavalent Chromium	EPA 7196A	ND	----	1.1	mg/kg dry	1x	6H08006	08/08/06 09:03	08/09/06 19:52	
<b>BPG0504-27 (PP05-3-10)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 15:55</b>						
Hexavalent Chromium	EPA 7196A	ND	----	1.1	mg/kg dry	1x	6H08006	08/08/06 09:03	08/09/06 19:52	
<b>BPG0504-33 (PP07-2-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 12:30</b>						
Hexavalent Chromium	EPA 7196A	ND	----	1.1	mg/kg dry	1x	6H08006	08/08/06 09:03	08/09/06 19:52	
<b>BPG0504-37 (PP08-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 14:15</b>						
Hexavalent Chromium	EPA 7196A	ND	----	1.2	mg/kg dry	1x	6H08006	08/08/06 09:03	08/09/06 19:52	

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Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b> 1101 Fawcett Ave, Suite 200 Tacoma, WA/USA 98402	Project Name: <b>TDO</b> Project Number: 0415-049-00 Project Manager: Kevin Broom	Report Created: 08/16/06 12:15
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**Physical Parameters by APHA/ASTM/EPA Methods**  
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-10 (PP01-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 14:15</b>					
Dry Weight	BSOPSPL003R0 8	82.5	----	1.00	%	1x	6G26051	07/26/06 19:51	07/27/06 00:00	
<b>BPG0504-15 (PP02-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 12:15</b>					
Dry Weight	BSOPSPL003R0 8	87.7	----	1.00	%	1x	6G26051	07/26/06 19:51	07/27/06 00:00	
<b>BPG0504-19 (PP03-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 09:45</b>					
Dry Weight	BSOPSPL003R0 8	85.9	----	1.00	%	1x	6G26051	07/26/06 19:51	07/27/06 00:00	
<b>BPG0504-23 (PP04-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 09:40</b>					
Dry Weight	BSOPSPL003R0 8	82.4	----	1.00	%	1x	6G26051	07/26/06 19:51	07/27/06 00:00	
<b>BPG0504-27 (PP05-3-10)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 15:55</b>					
Dry Weight	BSOPSPL003R0 8	90.5	----	1.00	%	1x	6G26052	07/26/06 19:53	07/27/06 00:00	
<b>BPG0504-29 (PP06-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 11:25</b>					
Dry Weight	BSOPSPL003R0 8	83.4	----	1.00	%	1x	6G26052	07/26/06 19:53	07/27/06 00:00	
<b>BPG0504-33 (PP07-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 12:30</b>					
Dry Weight	BSOPSPL003R0 8	87.1	----	1.00	%	1x	6G26052	07/26/06 19:53	07/27/06 00:00	
<b>BPG0504-37 (PP08-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 14:15</b>					
Dry Weight	BSOPSPL003R0 8	80.3	----	1.00	%	1x	6G26052	07/26/06 19:53	07/27/06 00:00	

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b> 1101 Fawcett Ave, Suite 200 Tacoma, WA/USA 98402	Project Name: <b>TDO</b> Project Number: 0415-049-00 Project Manager: Kevin Broom	Report Created: 08/16/06 12:15
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**Purgeable Petroleum Hydrocarbons**  
TestAmerica - Nashville, TN

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-01 (PP01-W)</b>		<b>Water</b>			<b>Sampled: 07/19/06 14:00</b>					
GRO as Gasoline	NWTPH-Gx	ND	----	100	ug/L	1x	6074959	07/19/06 14:00	07/27/06 17:20	
Surrogate(s): a,a,a-Trifluorotoluene			123%		63 - 134 %	"				"
<b>BPG0504-02 (PP02-W)</b>		<b>Water</b>			<b>Sampled: 07/19/06 12:30</b>					
GRO as Gasoline	NWTPH-Gx	ND	----	100	ug/L	1x	6074959	07/19/06 12:30	07/27/06 17:47	
Surrogate(s): a,a,a-Trifluorotoluene			122%		63 - 134 %	"				"
<b>BPG0504-03 (PP03-W)</b>		<b>Water</b>			<b>Sampled: 07/19/06 11:30</b>					
GRO as Gasoline	NWTPH-Gx	ND	----	100	ug/L	1x	6074959	07/19/06 11:30	07/27/06 18:13	
Surrogate(s): a,a,a-Trifluorotoluene			123%		63 - 134 %	"				"
<b>BPG0504-04 (PP04-W)</b>		<b>Water</b>			<b>Sampled: 07/20/06 10:20</b>					
GRO as Gasoline	NWTPH-Gx	ND	----	100	ug/L	1x	6074959	07/20/06 10:20	07/27/06 18:40	
Surrogate(s): a,a,a-Trifluorotoluene			120%		63 - 134 %	"				"
<b>BPG0504-05 (PP05-W)</b>		<b>Water</b>			<b>Sampled: 07/19/06 16:00</b>					
GRO as Gasoline	NWTPH-Gx	ND	----	100	ug/L	1x	6074959	07/19/06 16:00	07/27/06 19:06	
Surrogate(s): a,a,a-Trifluorotoluene			126%		63 - 134 %	"				"
<b>BPG0504-06 (PP06-W)</b>		<b>Water</b>			<b>Sampled: 07/20/06 12:00</b>					
GRO as Gasoline	NWTPH-Gx	ND	----	100	ug/L	1x	6074959	07/20/06 12:00	07/27/06 19:32	
Surrogate(s): a,a,a-Trifluorotoluene			125%		63 - 134 %	"				"
<b>BPG0504-07 (PP07-W)</b>		<b>Water</b>			<b>Sampled: 07/20/06 13:00</b>					
GRO as Gasoline	NWTPH-Gx	ND	----	100	ug/L	1x	6074959	07/20/06 13:00	07/27/06 19:59	
Surrogate(s): a,a,a-Trifluorotoluene			125%		63 - 134 %	"				"
<b>BPG0504-08 (PP08-W)</b>		<b>Water</b>			<b>Sampled: 07/20/06 14:20</b>					
GRO as Gasoline	NWTPH-Gx	ND	----	100	ug/L	1x	6074959	07/20/06 14:20	07/27/06 20:25	
Surrogate(s): a,a,a-Trifluorotoluene			124%		63 - 134 %	"				"

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b> 1101 Fawcett Ave, Suite 200 Tacoma, WA/USA 98402	Project Name: <b>TDO</b> Project Number: 0415-049-00 Project Manager: Kevin Broom	Report Created: 08/16/06 12:15
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**Purgeable Petroleum Hydrocarbons**  
TestAmerica - Nashville, TN

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-10 (PP01-2-6)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 14:15</b>						
GRO as Gasoline	NWTPH-Gx	ND	----	3.96	mg/kg	1x	6074903	07/27/06 12:37	07/27/06 16:59	
Surrogate(s): a,a,a-Trifluorotoluene			122%		56 - 145 %	"				"
<b>BPG0504-15RE1 (PP02-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 12:15</b>						
GRO as Gasoline	NWTPH-Gx	ND	----	5.71	mg/kg	1x	6075203	07/27/06 12:37	07/28/06 09:32	
Surrogate(s): a,a,a-Trifluorotoluene			122%		56 - 145 %	"				"
<b>BPG0504-19RE1 (PP03-2-6)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 09:45</b>						
GRO as Gasoline	NWTPH-Gx	ND	----	5.58	mg/kg	1x	6075203	07/27/06 12:37	07/28/06 10:03	
Surrogate(s): a,a,a-Trifluorotoluene			122%		56 - 145 %	"				"
<b>BPG0504-23RE1 (PP04-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 09:40</b>						
GRO as Gasoline	NWTPH-Gx	<b>4.63</b>	----	3.90	mg/kg	1x	6075203	07/27/06 12:37	07/28/06 10:34	
Surrogate(s): a,a,a-Trifluorotoluene			122%		56 - 145 %	"				"
<b>BPG0504-27RE1 (PP05-3-10)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 15:55</b>						
GRO as Gasoline	NWTPH-Gx	ND	----	4.30	mg/kg	1x	6075203	07/27/06 12:37	07/28/06 11:05	
Surrogate(s): a,a,a-Trifluorotoluene			122%		56 - 145 %	"				"
<b>BPG0504-29RE1 (PP06-2-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 11:25</b>						
GRO as Gasoline	NWTPH-Gx	ND	----	3.86	mg/kg	1x	6075203	07/27/06 12:37	07/28/06 11:36	
Surrogate(s): a,a,a-Trifluorotoluene			122%		56 - 145 %	"				"
<b>BPG0504-33 (PP07-2-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 12:30</b>						
GRO as Gasoline	NWTPH-Gx	ND	----	3.86	mg/kg	1x	6074903	07/27/06 12:37	07/27/06 17:30	
Surrogate(s): a,a,a-Trifluorotoluene			122%		56 - 145 %	"				"
<b>BPG0504-37 (PP08-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 14:15</b>						
GRO as Gasoline	NWTPH-Gx	ND	----	4.06	mg/kg	1x	6074903	07/27/06 12:37	07/27/06 18:01	
Surrogate(s): a,a,a-Trifluorotoluene			122%		56 - 145 %	"				"

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager




<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup**  
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-01 (PP01-W)</b>		<b>Water</b>			<b>Sampled: 07/19/06 14:00</b>			<b>BS-3</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	0.250	mg/l	1x	6070282	07/27/06 08:21	07/27/06 14:30	
Heavy Oil Range Hydrocarbons	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				63.2%		50 - 150 %	"		"	
<i>p-Terphenyl-d14</i>				67.5%		50 - 150 %	"		"	
<b>BPG0504-02 (PP02-W)</b>		<b>Water</b>			<b>Sampled: 07/19/06 12:30</b>			<b>BS-3</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	0.250	mg/l	1x	6070282	07/27/06 08:21	07/27/06 15:11	
Heavy Oil Range Hydrocarbons	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				58.9%		50 - 150 %	"		"	
<i>p-Terphenyl-d14</i>				60.1%		50 - 150 %	"		"	
<b>BPG0504-03 (PP03-W)</b>		<b>Water</b>			<b>Sampled: 07/19/06 11:30</b>			<b>BS-3</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	0.250	mg/l	1x	6070282	07/27/06 08:21	07/27/06 15:53	
Heavy Oil Range Hydrocarbons	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				49.5%		50 - 150 %	"		"	<b>SR-1</b>
<i>p-Terphenyl-d14</i>				57.4%		50 - 150 %	"		"	
<b>BPG0504-04 (PP04-W)</b>		<b>Water</b>			<b>Sampled: 07/20/06 10:20</b>			<b>BS-3</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	0.250	mg/l	1x	6070282	07/27/06 08:21	07/27/06 16:37	
Heavy Oil Range Hydrocarbons	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				63.0%		50 - 150 %	"		"	
<i>p-Terphenyl-d14</i>				69.5%		50 - 150 %	"		"	
<b>BPG0504-05 (PP05-W)</b>		<b>Water</b>			<b>Sampled: 07/19/06 16:00</b>			<b>BS-3</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	0.250	mg/l	1x	6070282	07/27/06 08:21	07/27/06 17:21	
Heavy Oil Range Hydrocarbons	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				62.6%		50 - 150 %	"		"	
<i>p-Terphenyl-d14</i>				63.4%		50 - 150 %	"		"	
<b>BPG0504-06 (PP06-W)</b>		<b>Water</b>			<b>Sampled: 07/20/06 12:00</b>			<b>BS-3</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	0.250	mg/l	1x	6070282	07/27/06 08:21	07/27/06 18:04	
Heavy Oil Range Hydrocarbons	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>				67.2%		50 - 150 %	"		"	
<i>p-Terphenyl-d14</i>				75.3%		50 - 150 %	"		"	

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 Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	Report Created:
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	08/16/06 12:15
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	

**Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup**  
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-07 (PP07-W)</b>		<b>Water</b>			<b>Sampled: 07/20/06 13:00</b>			<b>BS-3</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	0.250	mg/l	1x	6070282	07/27/06 08:21	07/27/06 18:48	
Heavy Oil Range Hydrocarbons	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>			69.5%		50 - 150 %	"				"
<i>p-Terphenyl-d14</i>			74.9%		50 - 150 %	"				"
<b>BPG0504-08 (PP08-W)</b>		<b>Water</b>			<b>Sampled: 07/20/06 14:20</b>			<b>BS-3</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	0.250	mg/l	1x	6070282	07/27/06 08:21	07/27/06 19:32	
Heavy Oil Range Hydrocarbons	"	ND	----	0.500	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>			65.6%		50 - 150 %	"				"
<i>p-Terphenyl-d14</i>			72.1%		50 - 150 %	"				"
<b>BPG0504-10 (PP01-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 14:15</b>			<b>HT-1</b>		
<b>Diesel Range Hydrocarbons</b>	NWTPH-Dx	<b>21.5</b>	----	13.7	mg/kg dry	1x	6080087	08/07/06 14:55	08/13/06 00:05	
<b>Heavy Oil Range Hydrocarbons</b>	"	<b>206</b>	----	34.2	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>			73.0%		50 - 150 %	"				"
<i>p-Terphenyl-d14</i>			77.7%		50 - 150 %	"				"
<b>BPG0504-15 (PP02-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 12:15</b>			<b>HT-1</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	11.2	mg/kg dry	1x	6080087	08/07/06 14:55	08/13/06 00:42	
Heavy Oil Range Hydrocarbons	"	ND	----	28.0	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>			12.2%		50 - 150 %	"				"
<i>p-Terphenyl-d14</i>			0.818%		50 - 150 %	"				"
<b>BPG0504-19 (PP03-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 09:45</b>			<b>HT-1</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	11.5	mg/kg dry	1x	6080087	08/07/06 14:55	08/13/06 01:20	
Heavy Oil Range Hydrocarbons	"	ND	----	28.7	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>			80.9%		50 - 150 %	"				"
<i>p-Terphenyl-d14</i>			83.5%		50 - 150 %	"				"
<b>BPG0504-23 (PP04-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 09:40</b>			<b>HT-1</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	11.9	mg/kg dry	1x	6080087	08/07/06 14:55	08/13/06 01:58	
<b>Heavy Oil Range Hydrocarbons</b>	"	<b>139</b>	----	29.7	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>			87.5%		50 - 150 %	"				"
<i>p-Terphenyl-d14</i>			93.3%		50 - 150 %	"				"

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Joy B Chang, Project Manager





<b>Geo Engineers - Tacoma</b> 1101 Fawcett Ave, Suite 200 Tacoma, WA/USA 98402	Project Name: <b>TDO</b> Project Number: 0415-049-00 Project Manager: Kevin Broom	Report Created: 08/16/06 12:15
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**Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup**  
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-27 (PP05-3-10)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 15:55</b>					<b>HT-1</b>
<b>Diesel Range Hydrocarbons</b>	NWTPH-Dx	<b>12.1</b>	----	10.9	mg/kg dry	1x	6080087	08/07/06 14:55	08/13/06 04:31	
<b>Heavy Oil Range Hydrocarbons</b>	"	<b>150</b>	----	27.2	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>			93.3%		50 - 150 %	"				"
<i>p-Terphenyl-d14</i>			101%		50 - 150 %	"				"
<b>BPG0504-29 (PP06-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 11:25</b>					<b>HT-1</b>
<b>Diesel Range Hydrocarbons</b>	NWTPH-Dx	ND	----	11.9	mg/kg dry	1x	6080087	08/07/06 14:55	08/13/06 05:09	
<b>Heavy Oil Range Hydrocarbons</b>	"	ND	----	29.8	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>			85.3%		50 - 150 %	"				"
<i>p-Terphenyl-d14</i>			85.6%		50 - 150 %	"				"
<b>BPG0504-33 (PP07-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 12:30</b>					<b>HT-1</b>
<b>Diesel Range Hydrocarbons</b>	NWTPH-Dx	<b>10.9</b>	----	10.9	mg/kg dry	1x	6080087	08/07/06 14:55	08/13/06 05:47	
<b>Heavy Oil Range Hydrocarbons</b>	"	<b>56.9</b>	----	27.3	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>			85.7%		50 - 150 %	"				"
<i>p-Terphenyl-d14</i>			93.8%		50 - 150 %	"				"
<b>BPG0504-37 (PP08-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 14:15</b>					<b>HT-1</b>
<b>Diesel Range Hydrocarbons</b>	NWTPH-Dx	ND	----	11.8	mg/kg dry	1x	6080087	08/07/06 14:55	08/13/06 06:24	
<b>Heavy Oil Range Hydrocarbons</b>	"	ND	----	29.5	"	"	"	"	"	
<i>Surrogate(s): 2-FBP</i>			79.8%		50 - 150 %	"				"
<i>p-Terphenyl-d14</i>			82.1%		50 - 150 %	"				"

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

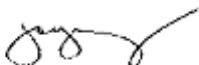
**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-15 (PP02-3-6)</b>		<b>Soil</b>						<b>Sampled: 07/19/06 12:15</b>		<b>HT-1</b>
1-Methylnaphthalene	EPA 8270 mod.	ND	----	0.0112	mg/kg dry	1x	6080088	08/07/06 14:51	08/10/06 15:34	
2-Methylnaphthalene	"	ND	----	0.0112	"	"	"	"	"	
Acenaphthene	"	ND	----	0.0112	"	"	"	"	"	
Acenaphthylene	"	ND	----	0.0112	"	"	"	"	"	
Anthracene	"	ND	----	0.0112	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0112	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0112	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0112	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0112	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0112	"	"	"	"	"	
Chrysene	"	ND	----	0.0112	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0112	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0112	"	"	"	"	"	
Fluorene	"	ND	----	0.0112	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0112	"	"	"	"	"	
Naphthalene	"	ND	----	0.0112	"	"	"	"	"	
Phenanthrene	"	ND	----	0.0112	"	"	"	"	"	
Pyrene	"	ND	----	0.0112	"	"	"	"	"	
<i>Surrogate(s): Nitrobenzene-d5</i>			61.9%		36.3 - 138 %	"				"
<i>2-FBP</i>			75.9%		23.3 - 147 %	"				"
<i>p-Terphenyl-d14</i>			128%		38.6 - 142 %	"				"

<b>BPG0504-27 (PP05-3-10)</b>		<b>Soil</b>						<b>Sampled: 07/19/06 15:55</b>		<b>HT-1, I</b>
1-Methylnaphthalene	EPA 8270 mod.	ND	----	0.109	mg/kg dry	10x	6080088	08/07/06 14:51	08/10/06 16:02	
2-Methylnaphthalene	"	ND	----	0.109	"	"	"	"	"	
Acenaphthene	"	ND	----	0.109	"	"	"	"	"	
Acenaphthylene	"	ND	----	0.109	"	"	"	"	"	
Anthracene	"	ND	----	0.109	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.109	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.109	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.109	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.109	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.109	"	"	"	"	"	
Chrysene	"	ND	----	0.109	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.109	"	"	"	"	"	
Fluoranthene	"	ND	----	0.109	"	"	"	"	"	
Fluorene	"	ND	----	0.109	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.109	"	"	"	"	"	
Naphthalene	"	ND	----	0.109	"	"	"	"	"	
Phenanthrene	"	ND	----	0.109	"	"	"	"	"	
Pyrene	"	ND	----	0.109	"	"	"	"	"	

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Joy B Chang, Project Manager



**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
 Tacoma, WA/USA 98402

Project Name: **TDO**

Project Number: 0415-049-00  
 Project Manager: Kevin Broom

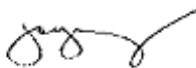
Report Created:  
 08/16/06 12:15

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-27 (PP05-3-10)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 15:55</b>				<b>HT-1, I</b>	
<i>Surrogate(s): Nitrobenzene-d5</i>			106%		36.3 - 138 %	10x			08/10/06 16:02	
<i>2-FBP</i>			132%		23.3 - 147 %	"			"	
<i>p-Terphenyl-d14</i>			138%		38.6 - 142 %	"			"	
<b>BPG0504-29 (PP06-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 11:25</b>				<b>HT-1</b>	
1-Methylnaphthalene	EPA 8270 mod.	ND	----	0.0119	mg/kg dry	1x	6080088	08/07/06 14:51	08/08/06 14:03	
2-Methylnaphthalene	"	ND	----	0.0119	"	"	"	"	"	
Acenaphthene	"	ND	----	0.0119	"	"	"	"	"	
Acenaphthylene	"	ND	----	0.0119	"	"	"	"	"	
Anthracene	"	ND	----	0.0119	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0119	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0119	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0119	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0119	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0119	"	"	"	"	"	
Chrysene	"	ND	----	0.0119	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0119	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0119	"	"	"	"	"	
Fluorene	"	ND	----	0.0119	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0119	"	"	"	"	"	
Naphthalene	"	ND	----	0.0119	"	"	"	"	"	
Phenanthrene	"	ND	----	0.0119	"	"	"	"	"	
Pyrene	"	ND	----	0.0119	"	"	"	"	"	
<i>Surrogate(s): Nitrobenzene-d5</i>			130%		36.3 - 138 %	"			"	
<i>2-FBP</i>			121%		23.3 - 147 %	"			"	
<i>p-Terphenyl-d14</i>			185%		38.6 - 142 %	"			"	<b>SR-2</b>
<b>BPG0504-33 (PP07-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 12:30</b>				<b>HT-1</b>	
1-Methylnaphthalene	EPA 8270 mod.	ND	----	0.0109	mg/kg dry	1x	6080125	08/10/06 06:19	08/10/06 16:59	
2-Methylnaphthalene	"	ND	----	0.0109	"	"	"	"	"	
Acenaphthene	"	ND	----	0.0109	"	"	"	"	"	
Acenaphthylene	"	ND	----	0.0109	"	"	"	"	"	
Anthracene	"	ND	----	0.0109	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0109	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0109	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0109	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0109	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0109	"	"	"	"	"	
Chrysene	"	ND	----	0.0109	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0109	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>0.0230</b>	----	0.0109	"	"	"	"	"	

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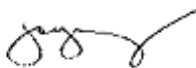
<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	Report Created:
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	08/16/06 12:15
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-33 (PP07-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 12:30</b>					<b>HT-1</b>
Fluorene	EPA 8270 mod.	ND	----	0.0109	mg/kg dry	1x	6080125	08/10/06 06:19	08/10/06 16:59	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0109	"	"	"	"	"	
Naphthalene	"	ND	----	0.0109	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>0.0352</b>	----	0.0109	"	"	"	"	"	
Pyrene	"	ND	----	0.0109	"	"	"	"	"	
<i>Surrogate(s): Nitrobenzene-d5</i>				84.7%	36.3 - 138 %	"				
<i>2-FBP</i>				126%	23.3 - 147 %	"				
<i>p-Terphenyl-d14</i>				201%	38.6 - 142 %	"				<b>SR-2</b>

<b>BPG0504-37 (PP08-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 14:15</b>					<b>HT-1</b>
1-Methylnaphthalene	EPA 8270 mod.	ND	----	0.0118	mg/kg dry	1x	6080125	08/10/06 06:19	08/14/06 07:55	
2-Methylnaphthalene	"	ND	----	0.0118	"	"	"	"	"	
Acenaphthene	"	ND	----	0.0118	"	"	"	"	"	
Acenaphthylene	"	ND	----	0.0118	"	"	"	"	"	
Anthracene	"	ND	----	0.0118	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0118	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>0.0126</b>	----	0.0118	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0118	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0118	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0118	"	"	"	"	"	
<b>Chrysene</b>	"	<b>0.0126</b>	----	0.0118	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.0118	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>0.0150</b>	----	0.0118	"	"	"	"	"	
Fluorene	"	ND	----	0.0118	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0118	"	"	"	"	"	
Naphthalene	"	ND	----	0.0118	"	"	"	"	"	
Phenanthrene	"	ND	----	0.0118	"	"	"	"	"	
<b>Pyrene</b>	"	<b>0.0181</b>	----	0.0118	"	"	"	"	"	
<i>Surrogate(s): Nitrobenzene-d5</i>				78.7%	36.3 - 138 %	"				
<i>2-FBP</i>				104%	23.3 - 147 %	"				
<i>p-Terphenyl-d14</i>				155%	38.6 - 142 %	"				

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b> 1101 Fawcett Ave, Suite 200 Tacoma, WA/USA 98402	Project Name: <b>TDO</b> Project Number: 0415-049-00 Project Manager: Kevin Broom	Report Created: 08/16/06 12:15
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**Conventional Chemistry Parameters by APHA/EPA Methods**  
 TestAmerica - Spokane, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-10 (PP01-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 14:15</b>					
% Solids	CLP SOW ILM 6.X	73.1	----	0.0100	% by Weight	1x	6080092	08/08/06 08:34	08/08/06 08:35	
<b>BPG0504-15 (PP02-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 12:15</b>					
% Solids	CLP SOW ILM 6.X	89.4	----	0.0100	% by Weight	1x	6080092	08/08/06 08:34	08/08/06 08:35	
<b>BPG0504-19 (PP03-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 09:45</b>					
% Solids	CLP SOW ILM 6.X	87.2	----	0.0100	% by Weight	1x	6080092	08/08/06 08:34	08/08/06 08:35	
<b>BPG0504-23 (PP04-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 09:40</b>					
% Solids	CLP SOW ILM 6.X	84.2	----	0.0100	% by Weight	1x	6080092	08/08/06 08:34	08/08/06 08:35	
<b>BPG0504-27 (PP05-3-10)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 15:55</b>					
% Solids	CLP SOW ILM 6.X	91.8	----	0.0100	% by Weight	1x	6080092	08/08/06 08:34	08/08/06 08:35	
<b>BPG0504-29 (PP06-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 11:25</b>					
% Solids	CLP SOW ILM 6.X	84.0	----	0.0100	% by Weight	1x	6080092	08/08/06 08:34	08/08/06 08:35	
<b>BPG0504-33 (PP07-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 12:30</b>					
% Solids	CLP SOW ILM 6.X	91.6	----	0.0100	% by Weight	1x	6080092	08/08/06 08:34	08/08/06 08:35	
<b>BPG0504-37 (PP08-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 14:15</b>					
% Solids	CLP SOW ILM 6.X	84.7	----	0.0100	% by Weight	1x	6080092	08/08/06 08:34	08/08/06 08:35	

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

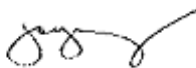
**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-02 (PP02-W)</b>		<b>Water</b>			<b>Sampled: 07/19/06 12:30</b>					
Acenaphthene	EPA 8270C	ND	----	4.81	ug/l	1x	6071137	07/26/06 17:15	08/14/06 18:58	
Acenaphthylene	"	ND	----	4.81	"	"	"	"	"	
Anthracene	"	ND	----	4.81	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	4.81	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	4.81	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	4.81	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	4.81	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	4.81	"	"	"	"	"	
Benzoic Acid	"	ND	----	48.1	"	"	"	"	"	
Benzyl alcohol	"	ND	----	9.62	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND	----	4.81	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	4.81	"	"	"	"	"	
4-Chloro-3-methylphenol	"	ND	----	4.81	"	"	"	"	"	
4-Chloroaniline	"	ND	----	19.2	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	----	9.62	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	----	4.81	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	----	9.62	"	"	"	"	"	
2-Chloronaphthalene	"	ND	----	4.81	"	"	"	"	"	
2-Chlorophenol	"	ND	----	4.81	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	----	4.81	"	"	"	"	"	
Chrysene	"	ND	----	4.81	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	4.81	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	4.81	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	4.81	"	"	"	"	"	
Dibenzofuran	"	ND	----	4.81	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	4.81	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	4.81	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	4.81	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	4.81	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	4.81	"	"	"	"	"	
Diethyl phthalate	"	ND	----	4.81	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	9.62	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	4.81	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	9.62	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	24.0	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	4.81	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	----	4.81	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	9.62	"	"	"	"	"	
Fluoranthene	"	ND	----	4.81	"	"	"	"	"	
Fluorene	"	ND	----	4.81	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	4.81	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	9.62	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	9.62	"	"	"	"	"	

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Joy B Chang, Project Manager



**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
 Tacoma, WA/USA 98402

Project Name: **TDO**

Project Number: 0415-049-00  
 Project Manager: Kevin Broom

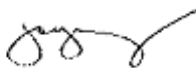
Report Created:  
 08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-02 (PP02-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 12:30</b>				
Hexachloroethane	EPA 8270C	ND	----	9.62	ug/l	1x	6071137	07/26/06 17:15	08/14/06 18:58	
Indeno (1,2,3-cd) pyrene	"	ND	----	4.81	"	"	"	"	"	"
Isophorone	"	ND	----	4.81	"	"	"	"	"	"
2-Methylnaphthalene	"	ND	----	4.81	"	"	"	"	"	"
2-Methylphenol	"	ND	----	9.62	"	"	"	"	"	"
3-,4-Methylphenol	"	ND	----	4.81	"	"	"	"	"	"
Naphthalene	"	ND	----	4.81	"	"	"	"	"	"
2-Nitroaniline	"	ND	----	4.81	"	"	"	"	"	"
3-Nitroaniline	"	ND	----	9.62	"	"	"	"	"	"
4-Nitroaniline	"	ND	----	9.62	"	"	"	"	"	"
Nitrobenzene	"	ND	----	4.81	"	"	"	"	"	"
2-Nitrophenol	"	ND	----	4.81	"	"	"	"	"	"
4-Nitrophenol	"	ND	----	24.0	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	"	ND	----	9.62	"	"	"	"	"	"
N-Nitrosodiphenylamine	"	ND	----	4.81	"	"	"	"	"	"
Pentachlorophenol	"	ND	----	9.62	"	"	"	"	"	"
Phenanthrene	"	ND	----	4.81	"	"	"	"	"	"
Phenol	"	ND	----	4.81	"	"	"	"	"	"
Pyrene	"	ND	----	4.81	"	"	"	"	"	"
1,2,4-Trichlorobenzene	"	ND	----	4.81	"	"	"	"	"	"
2,4,5-Trichlorophenol	"	ND	----	4.81	"	"	"	"	"	"
2,4,6-Trichlorophenol	"	ND	----	4.81	"	"	"	"	"	"
<hr/>										
<i>Surrogate(s):</i>										
	<i>2-Fluorobiphenyl</i>			<i>69.9%</i>		<i>22 - 120 %</i>				
	<i>2-Fluorophenol</i>			<i>53.2%</i>		<i>5 - 120 %</i>				
	<i>Nitrobenzene-d5</i>			<i>67.7%</i>		<i>26 - 127 %</i>				
	<i>Phenol-d6</i>			<i>56.3%</i>		<i>4 - 121 %</i>				
	<i>p-Terphenyl-d14</i>			<i>97.2%</i>		<i>37 - 130 %</i>				
	<i>2,4,6-Tribromophenol</i>			<i>93.1%</i>		<i>21 - 129 %</i>				
<hr/>										
<b>BPG0504-05 (PP05-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 16:00</b>				
Acenaphthene	EPA 8270C	ND	----	4.76	ug/l	1x	6071137	07/26/06 17:15	08/08/06 21:19	
Acenaphthylene	"	ND	----	4.76	"	"	"	"	"	"
Anthracene	"	ND	----	4.76	"	"	"	"	"	"
Benzo (a) anthracene	"	ND	----	4.76	"	"	"	"	"	"
Benzo (a) pyrene	"	ND	----	4.76	"	"	"	"	"	"
Benzo (b) fluoranthene	"	ND	----	4.76	"	"	"	"	"	"
Benzo (ghi) perylene	"	ND	----	4.76	"	"	"	"	"	"
Benzo (k) fluoranthene	"	ND	----	4.76	"	"	"	"	"	"
Benzoic Acid	"	ND	----	47.6	"	"	"	"	"	"
Benzyl alcohol	"	ND	----	9.52	"	"	"	"	"	"
4-Bromophenyl phenyl ether	"	ND	----	4.76	"	"	"	"	"	"
Butyl benzyl phthalate	"	ND	----	4.76	"	"	"	"	"	"

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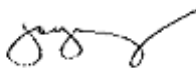
<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-05 (PP05-W)</b>		<b>Water</b>			<b>Sampled: 07/19/06 16:00</b>					
4-Chloro-3-methylphenol	EPA 8270C	ND	----	4.76	ug/l	1x	6071137	07/26/06 17:15	08/08/06 21:19	
4-Chloroaniline	"	ND	----	19.0	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	----	9.52	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	----	4.76	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	----	9.52	"	"	"	"	"	
2-Chloronaphthalene	"	ND	----	4.76	"	"	"	"	"	
2-Chlorophenol	"	ND	----	4.76	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	----	4.76	"	"	"	"	"	
Chrysene	"	ND	----	4.76	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	4.76	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	4.76	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	4.76	"	"	"	"	"	
Dibenzofuran	"	ND	----	4.76	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	4.76	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	4.76	"	"	"	"	"	
Diethyl phthalate	"	ND	----	4.76	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	9.52	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	4.76	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	9.52	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	23.8	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	4.76	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	----	4.76	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	9.52	"	"	"	"	"	B-18
Fluoranthene	"	ND	----	4.76	"	"	"	"	"	
Fluorene	"	ND	----	4.76	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	4.76	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	9.52	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	9.52	"	"	"	"	"	
Hexachloroethane	"	ND	----	9.52	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	4.76	"	"	"	"	"	
Isophorone	"	ND	----	4.76	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	4.76	"	"	"	"	"	
2-Methylphenol	"	ND	----	9.52	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	4.76	"	"	"	"	"	
Naphthalene	"	ND	----	4.76	"	"	"	"	"	
2-Nitroaniline	"	ND	----	4.76	"	"	"	"	"	
3-Nitroaniline	"	ND	----	9.52	"	"	"	"	"	
4-Nitroaniline	"	ND	----	9.52	"	"	"	"	"	
Nitrobenzene	"	ND	----	4.76	"	"	"	"	"	
2-Nitrophenol	"	ND	----	4.76	"	"	"	"	"	

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Joy B Chang, Project Manager





<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
TestAmerica - Portland, OR

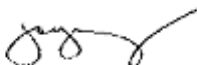
Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes	
<b>BPG0504-05 (PP05-W)</b>		<b>Water</b>				<b>Sampled: 07/19/06 16:00</b>					
4-Nitrophenol	EPA 8270C	ND	----	23.8	ug/l	1x	6071137	07/26/06 17:15	08/08/06 21:19		
N-Nitrosodi-n-propylamine	"	ND	----	9.52	"	"	"	"	"		
N-Nitrosodiphenylamine	"	ND	----	4.76	"	"	"	"	"		
Pentachlorophenol	"	ND	----	9.52	"	"	"	"	"		
Phenanthrene	"	ND	----	4.76	"	"	"	"	"		
Phenol	"	ND	----	4.76	"	"	"	"	"		
Pyrene	"	ND	----	4.76	"	"	"	"	"		
1,2,4-Trichlorobenzene	"	ND	----	4.76	"	"	"	"	"		
2,4,5-Trichlorophenol	"	ND	----	4.76	"	"	"	"	"		
2,4,6-Trichlorophenol	"	ND	----	4.76	"	"	"	"	"		

<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>84.6%</i>	<i>22 - 120 %</i>	<i>"</i>	<i>"</i>
	<i>2-Fluorophenol</i>	<i>57.3%</i>	<i>5 - 120 %</i>	<i>"</i>	<i>"</i>
	<i>Nitrobenzene-d5</i>	<i>84.2%</i>	<i>26 - 127 %</i>	<i>"</i>	<i>"</i>
	<i>Phenol-d6</i>	<i>77.6%</i>	<i>4 - 121 %</i>	<i>"</i>	<i>"</i>
	<i>p-Terphenyl-d14</i>	<i>84.7%</i>	<i>37 - 130 %</i>	<i>"</i>	<i>"</i>
	<i>2,4,6-Tribromophenol</i>	<i>95.1%</i>	<i>21 - 129 %</i>	<i>"</i>	<i>"</i>

<b>BPG0504-06 (PP06-W)</b>		<b>Water</b>				<b>Sampled: 07/20/06 12:00</b>					
Acenaphthene	EPA 8270C	ND	----	4.76	ug/l	1x	6071137	07/26/06 17:15	08/08/06 22:02		
Acenaphthylene	"	ND	----	4.76	"	"	"	"	"		
Anthracene	"	ND	----	4.76	"	"	"	"	"		
Benzo (a) anthracene	"	ND	----	4.76	"	"	"	"	"		
Benzo (a) pyrene	"	ND	----	4.76	"	"	"	"	"		
Benzo (b) fluoranthene	"	ND	----	4.76	"	"	"	"	"		
Benzo (ghi) perylene	"	ND	----	4.76	"	"	"	"	"		
Benzo (k) fluoranthene	"	ND	----	4.76	"	"	"	"	"		
Benzoic Acid	"	ND	----	47.6	"	"	"	"	"		
Benzyl alcohol	"	ND	----	9.52	"	"	"	"	"		
4-Bromophenyl phenyl ether	"	ND	----	4.76	"	"	"	"	"		
Butyl benzyl phthalate	"	ND	----	4.76	"	"	"	"	"		
4-Chloro-3-methylphenol	"	ND	----	4.76	"	"	"	"	"		
4-Chloroaniline	"	ND	----	19.0	"	"	"	"	"		
Bis(2-chloroethoxy)methane	"	ND	----	9.52	"	"	"	"	"		
Bis(2-chloroethyl)ether	"	ND	----	4.76	"	"	"	"	"		
Bis(2-chloroisopropyl)ether	"	ND	----	9.52	"	"	"	"	"		
2-Chloronaphthalene	"	ND	----	4.76	"	"	"	"	"		
2-Chlorophenol	"	ND	----	4.76	"	"	"	"	"		
4-Chlorophenyl phenyl ether	"	ND	----	4.76	"	"	"	"	"		
Chrysene	"	ND	----	4.76	"	"	"	"	"		
Di-n-butyl phthalate	"	ND	----	4.76	"	"	"	"	"		
Di-n-octyl phthalate	"	ND	----	4.76	"	"	"	"	"		
Dibenzo (a,h) anthracene	"	ND	----	4.76	"	"	"	"	"		

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-06 (PP06-W)</b>		<b>Water</b>			<b>Sampled: 07/20/06 12:00</b>					
Dibenzofuran	EPA 8270C	ND	----	4.76	ug/l	1x	6071137	07/26/06 17:15	08/08/06 22:02	
1,2-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	4.76	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	4.76	"	"	"	"	"	
Diethyl phthalate	"	ND	----	4.76	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	9.52	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	4.76	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	9.52	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	23.8	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	4.76	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	----	4.76	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	9.52	"	"	"	"	"	<b>B-18</b>
Fluoranthene	"	ND	----	4.76	"	"	"	"	"	
Fluorene	"	ND	----	4.76	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	4.76	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	9.52	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	9.52	"	"	"	"	"	
Hexachloroethane	"	ND	----	9.52	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	4.76	"	"	"	"	"	
Isophorone	"	ND	----	4.76	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	4.76	"	"	"	"	"	
2-Methylphenol	"	ND	----	9.52	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	4.76	"	"	"	"	"	
Naphthalene	"	ND	----	4.76	"	"	"	"	"	
2-Nitroaniline	"	ND	----	4.76	"	"	"	"	"	
3-Nitroaniline	"	ND	----	9.52	"	"	"	"	"	
4-Nitroaniline	"	ND	----	9.52	"	"	"	"	"	
Nitrobenzene	"	ND	----	4.76	"	"	"	"	"	
2-Nitrophenol	"	ND	----	4.76	"	"	"	"	"	
4-Nitrophenol	"	ND	----	23.8	"	"	"	"	"	
N-Nitrosodi-n-propylamine	"	ND	----	9.52	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	4.76	"	"	"	"	"	
Pentachlorophenol	"	ND	----	9.52	"	"	"	"	"	
Phenanthrene	"	ND	----	4.76	"	"	"	"	"	
Phenol	"	ND	----	4.76	"	"	"	"	"	
Pyrene	"	ND	----	4.76	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	4.76	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	4.76	"	"	"	"	"	
<i>Surrogate(s): 2-Fluorobiphenyl</i>			87.4%		22 - 120 %	"			"	

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

BPG0504-06 (PP06-W)		Water			Sampled: 07/20/06 12:00					
	2-Fluorophenol	64.5%			5 - 120 %	1x				08/08/06 22:02
	Nitrobenzene-d5	89.8%			26 - 127 %	"				"
	Phenol-d6	83.2%			4 - 121 %	"				"
	p-Terphenyl-d14	84.3%			37 - 130 %	"				"
	2,4,6-Tribromophenol	90.9%			21 - 129 %	"				"

BPG0504-07 (PP07-W)		Water			Sampled: 07/20/06 13:00					
Acenaphthene	EPA 8270C	ND	----	4.76	ug/l	1x	6071137	07/26/06 17:15	08/09/06 03:48	
Acenaphthylene	"	ND	----	4.76	"	"	"	"	"	"
Anthracene	"	ND	----	4.76	"	"	"	"	"	"
Benzo (a) anthracene	"	ND	----	4.76	"	"	"	"	"	"
Benzo (a) pyrene	"	ND	----	4.76	"	"	"	"	"	"
Benzo (b) fluoranthene	"	ND	----	4.76	"	"	"	"	"	"
Benzo (ghi) perylene	"	ND	----	4.76	"	"	"	"	"	"
Benzo (k) fluoranthene	"	ND	----	4.76	"	"	"	"	"	"
Benzoic Acid	"	ND	----	47.6	"	"	"	"	"	"
Benzyl alcohol	"	ND	----	9.52	"	"	"	"	"	"
4-Bromophenyl phenyl ether	"	ND	----	4.76	"	"	"	"	"	"
Butyl benzyl phthalate	"	ND	----	4.76	"	"	"	"	"	"
4-Chloro-3-methylphenol	"	ND	----	4.76	"	"	"	"	"	"
4-Chloroaniline	"	ND	----	19.0	"	"	"	"	"	"
Bis(2-chloroethoxy)methane	"	ND	----	9.52	"	"	"	"	"	"
Bis(2-chloroethyl)ether	"	ND	----	4.76	"	"	"	"	"	"
Bis(2-chloroisopropyl)ether	"	ND	----	9.52	"	"	"	"	"	"
2-Chloronaphthalene	"	ND	----	4.76	"	"	"	"	"	"
2-Chlorophenol	"	ND	----	4.76	"	"	"	"	"	"
4-Chlorophenyl phenyl ether	"	ND	----	4.76	"	"	"	"	"	"
Chrysene	"	ND	----	4.76	"	"	"	"	"	"
Di-n-butyl phthalate	"	ND	----	4.76	"	"	"	"	"	"
Di-n-octyl phthalate	"	ND	----	4.76	"	"	"	"	"	"
Dibenzo (a,h) anthracene	"	ND	----	4.76	"	"	"	"	"	"
Dibenzofuran	"	ND	----	4.76	"	"	"	"	"	"
1,2-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	"
1,3-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	"
1,4-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	"
3,3'-Dichlorobenzidine	"	ND	----	4.76	"	"	"	"	"	"
2,4-Dichlorophenol	"	ND	----	4.76	"	"	"	"	"	"
Diethyl phthalate	"	ND	----	4.76	"	"	"	"	"	"
2,4-Dimethylphenol	"	ND	----	9.52	"	"	"	"	"	"
Dimethyl phthalate	"	ND	----	4.76	"	"	"	"	"	"
4,6-Dinitro-2-methylphenol	"	ND	----	9.52	"	"	"	"	"	"
2,4-Dinitrophenol	"	ND	----	23.8	"	"	"	"	"	"
2,4-Dinitrotoluene	"	ND	----	4.76	"	"	"	"	"	"

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

BPG0504-07 (PP07-W)		Water			Sampled: 07/20/06 13:00					
2,6-Dinitrotoluene	EPA 8270C	ND	----	4.76	ug/l	1x	6071137	07/26/06 17:15	08/09/06 03:48	
Bis(2-ethylhexyl)phthalate	"	ND	----	9.52	"	"	"	"	"	B-18
Fluoranthene	"	ND	----	4.76	"	"	"	"	"	
Fluorene	"	ND	----	4.76	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	4.76	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	9.52	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	9.52	"	"	"	"	"	
Hexachloroethane	"	ND	----	9.52	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	4.76	"	"	"	"	"	
Isophorone	"	ND	----	4.76	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	4.76	"	"	"	"	"	
2-Methylphenol	"	ND	----	9.52	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	4.76	"	"	"	"	"	
Naphthalene	"	ND	----	4.76	"	"	"	"	"	
2-Nitroaniline	"	ND	----	4.76	"	"	"	"	"	
3-Nitroaniline	"	ND	----	9.52	"	"	"	"	"	
4-Nitroaniline	"	ND	----	9.52	"	"	"	"	"	
Nitrobenzene	"	ND	----	4.76	"	"	"	"	"	
2-Nitrophenol	"	ND	----	4.76	"	"	"	"	"	
4-Nitrophenol	"	ND	----	23.8	"	"	"	"	"	
N-Nitrosodi-n-propylamine	"	ND	----	9.52	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	4.76	"	"	"	"	"	
Pentachlorophenol	"	ND	----	9.52	"	"	"	"	"	
Phenanthrene	"	ND	----	4.76	"	"	"	"	"	
Phenol	"	ND	----	4.76	"	"	"	"	"	
Pyrene	"	ND	----	4.76	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	4.76	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	4.76	"	"	"	"	"	

<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>65.7%</i>	<i>22 - 120 %</i>	<i>"</i>	<i>"</i>
	<i>2-Fluorophenol</i>	<i>41.8%</i>	<i>5 - 120 %</i>	<i>"</i>	<i>"</i>
	<i>Nitrobenzene-d5</i>	<i>63.0%</i>	<i>26 - 127 %</i>	<i>"</i>	<i>"</i>
	<i>Phenol-d6</i>	<i>51.6%</i>	<i>4 - 121 %</i>	<i>"</i>	<i>"</i>
	<i>p-Terphenyl-d14</i>	<i>79.1%</i>	<i>37 - 130 %</i>	<i>"</i>	<i>"</i>
	<i>2,4,6-Tribromophenol</i>	<i>69.8%</i>	<i>21 - 129 %</i>	<i>"</i>	<i>"</i>

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-08 (PP08-W)</b>		<b>Water</b>			<b>Sampled: 07/20/06 14:20</b>					
Acenaphthene	EPA 8270C	ND	----	4.76	ug/l	1x	6071137	07/26/06 17:15	08/09/06 04:32	
Acenaphthylene	"	ND	----	4.76	"	"	"	"	"	
Anthracene	"	ND	----	4.76	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	4.76	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	4.76	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	4.76	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	4.76	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	4.76	"	"	"	"	"	
Benzoic Acid	"	ND	----	47.6	"	"	"	"	"	
Benzyl alcohol	"	ND	----	9.52	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND	----	4.76	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	4.76	"	"	"	"	"	
4-Chloro-3-methylphenol	"	ND	----	4.76	"	"	"	"	"	
4-Chloroaniline	"	ND	----	19.0	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	----	9.52	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	----	4.76	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	----	9.52	"	"	"	"	"	
2-Chloronaphthalene	"	ND	----	4.76	"	"	"	"	"	
2-Chlorophenol	"	ND	----	4.76	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	----	4.76	"	"	"	"	"	
Chrysene	"	ND	----	4.76	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	4.76	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	4.76	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	4.76	"	"	"	"	"	
Dibenzofuran	"	ND	----	4.76	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	4.76	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	4.76	"	"	"	"	"	
Diethyl phthalate	"	ND	----	4.76	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	9.52	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	4.76	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	9.52	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	23.8	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	4.76	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	----	4.76	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	9.52	"	"	"	"	"	
Fluoranthene	"	ND	----	4.76	"	"	"	"	"	
Fluorene	"	ND	----	4.76	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	4.76	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	9.52	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	9.52	"	"	"	"	"	

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Joy B Chang, Project Manager



**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
 Tacoma, WA/USA 98402

Project Name: **TDO**

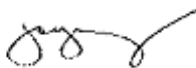
Project Number: 0415-049-00  
 Project Manager: Kevin Broom

Report Created:  
 08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-08 (PP08-W)</b>		<b>Water</b>		<b>Sampled: 07/20/06 14:20</b>						
Hexachloroethane	EPA 8270C	ND	----	9.52	ug/l	1x	6071137	07/26/06 17:15	08/09/06 04:32	
Indeno (1,2,3-cd) pyrene	"	ND	----	4.76	"	"	"	"	"	
Isophorone	"	ND	----	4.76	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	4.76	"	"	"	"	"	
2-Methylphenol	"	ND	----	9.52	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	4.76	"	"	"	"	"	
Naphthalene	"	ND	----	4.76	"	"	"	"	"	
2-Nitroaniline	"	ND	----	4.76	"	"	"	"	"	
3-Nitroaniline	"	ND	----	9.52	"	"	"	"	"	
4-Nitroaniline	"	ND	----	9.52	"	"	"	"	"	
Nitrobenzene	"	ND	----	4.76	"	"	"	"	"	
2-Nitrophenol	"	ND	----	4.76	"	"	"	"	"	
4-Nitrophenol	"	ND	----	23.8	"	"	"	"	"	
N-Nitrosodi-n-propylamine	"	ND	----	9.52	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	4.76	"	"	"	"	"	
Pentachlorophenol	"	ND	----	9.52	"	"	"	"	"	
Phenanthrene	"	ND	----	4.76	"	"	"	"	"	
Phenol	"	ND	----	4.76	"	"	"	"	"	
Pyrene	"	ND	----	4.76	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	4.76	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	4.76	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	4.76	"	"	"	"	"	
<i>Surrogate(s):</i>										
	<i>2-Fluorobiphenyl</i>		<i>68.3%</i>		<i>22 - 120 %</i>					
	<i>2-Fluorophenol</i>		<i>51.3%</i>		<i>5 - 120 %</i>					
	<i>Nitrobenzene-d5</i>		<i>68.9%</i>		<i>26 - 127 %</i>					
	<i>Phenol-d6</i>		<i>68.0%</i>		<i>4 - 121 %</i>					
	<i>p-Terphenyl-d14</i>		<i>85.7%</i>		<i>37 - 130 %</i>					
	<i>2,4,6-Tribromophenol</i>		<i>84.6%</i>		<i>21 - 129 %</i>					
<b>BPG0504-15RE2 (PP02-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 12:15</b>						
Acenaphthene	EPA 8270C	ND	----	0.630	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 19:55	
Acenaphthylene	"	ND	----	0.630	"	"	"	"	"	
Anthracene	"	ND	----	0.630	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.630	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.630	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.630	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.630	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.630	"	"	"	"	"	
Benzoic Acid	"	ND	----	1.91	"	"	"	"	"	
Benzyl alcohol	"	ND	----	1.91	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND	----	0.630	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	0.630	"	"	"	"	"	

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Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-15RE2 (PP02-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 12:15</b>						
4-Chloro-3-methylphenol	EPA 8270C	ND	----	0.630	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 19:55	
4-Chloroaniline	"	ND	----	3.82	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	----	0.630	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	----	0.630	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	----	0.630	"	"	"	"	"	
2-Chloronaphthalene	"	ND	----	0.630	"	"	"	"	"	
2-Chlorophenol	"	ND	----	0.630	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	----	0.630	"	"	"	"	"	
Chrysene	"	ND	----	0.630	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	1.91	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	0.630	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.630	"	"	"	"	"	
Dibenzofuran	"	ND	----	0.630	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.91	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.91	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.91	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	1.91	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	0.630	"	"	"	"	"	
Diethyl phthalate	"	ND	----	0.630	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	1.91	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	0.630	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	1.91	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	3.82	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	0.954	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	----	0.954	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	3.82	"	"	"	"	"	
Fluoranthene	"	ND	----	0.630	"	"	"	"	"	
Fluorene	"	ND	----	0.630	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	0.630	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	1.91	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	1.91	"	"	"	"	"	
Hexachloroethane	"	ND	----	1.91	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.630	"	"	"	"	"	
Isophorone	"	ND	----	0.630	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	0.630	"	"	"	"	"	
2-Methylphenol	"	ND	----	0.630	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	0.630	"	"	"	"	"	
Naphthalene	"	ND	----	0.630	"	"	"	"	"	
2-Nitroaniline	"	ND	----	0.630	"	"	"	"	"	
3-Nitroaniline	"	ND	----	1.91	"	"	"	"	"	
4-Nitroaniline	"	ND	----	0.630	"	"	"	"	"	
Nitrobenzene	"	ND	----	0.630	"	"	"	"	"	
2-Nitrophenol	"	ND	----	0.630	"	"	"	"	"	

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
TestAmerica - Portland, OR

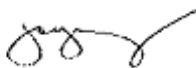
Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-15RE2 (PP02-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 12:15</b>						
4-Nitrophenol	EPA 8270C	ND	----	1.91	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 19:55	
N-Nitrosodi-n-propylamine	"	ND	----	0.630	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	0.630	"	"	"	"	"	
Pentachlorophenol	"	ND	----	1.91	"	"	"	"	"	
Phenanthrene	"	ND	----	0.630	"	"	"	"	"	
Phenol	"	ND	----	0.630	"	"	"	"	"	
Pyrene	"	ND	----	0.630	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.91	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	0.630	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	0.630	"	"	"	"	"	

<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>82.0%</i>	<i>30 - 115 %</i>	<i>"</i>	<i>"</i>	<i>"</i>
	<i>2-Fluorophenol</i>	<i>68.6%</i>	<i>25 - 121 %</i>	<i>"</i>	<i>"</i>	<i>"</i>
	<i>Nitrobenzene-d5</i>	<i>82.2%</i>	<i>23 - 120 %</i>	<i>"</i>	<i>"</i>	<i>"</i>
	<i>Phenol-d6</i>	<i>91.3%</i>	<i>24 - 113 %</i>	<i>"</i>	<i>"</i>	<i>"</i>
	<i>p-Terphenyl-d14</i>	<i>83.2%</i>	<i>18 - 137 %</i>	<i>"</i>	<i>"</i>	<i>"</i>
	<i>2,4,6-Tribromophenol</i>	<i>85.1%</i>	<i>19 - 122 %</i>	<i>"</i>	<i>"</i>	<i>"</i>

<b>BPG0504-27RE2 (PP05-3-10)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 15:55</b>						
Acenaphthene	EPA 8270C	ND	----	0.358	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 20:38	
Acenaphthylene	"	ND	----	0.358	"	"	"	"	"	
Anthracene	"	ND	----	0.358	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.358	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.358	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.358	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.358	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.358	"	"	"	"	"	
Benzoic Acid	"	ND	----	1.08	"	"	"	"	"	
Benzyl alcohol	"	ND	----	1.08	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND	----	0.358	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	0.358	"	"	"	"	"	
4-Chloro-3-methylphenol	"	ND	----	0.358	"	"	"	"	"	
4-Chloroaniline	"	ND	----	2.17	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	----	0.358	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	----	0.358	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	----	0.358	"	"	"	"	"	
2-Chloronaphthalene	"	ND	----	0.358	"	"	"	"	"	
2-Chlorophenol	"	ND	----	0.358	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	----	0.358	"	"	"	"	"	
Chrysene	"	ND	----	0.358	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	1.08	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	0.358	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.358	"	"	"	"	"	

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Joy B Chang, Project Manager





<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-27RE2 (PP05-3-10)</b>		<b>Soil</b>		<b>Sampled: 07/19/06 15:55</b>						
Dibenzofuran	EPA 8270C	ND	----	0.358	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 20:38	
1,2-Dichlorobenzene	"	ND	----	1.08	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.08	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.08	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	1.08	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	0.358	"	"	"	"	"	
Diethyl phthalate	"	ND	----	0.358	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	1.08	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	0.358	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	1.08	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	2.17	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	0.542	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	----	0.542	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	2.17	"	"	"	"	"	
Fluoranthene	"	ND	----	0.358	"	"	"	"	"	
Fluorene	"	ND	----	0.358	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	0.358	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	1.08	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	1.08	"	"	"	"	"	
Hexachloroethane	"	ND	----	1.08	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.358	"	"	"	"	"	
Isophorone	"	ND	----	0.358	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	0.358	"	"	"	"	"	
2-Methylphenol	"	ND	----	0.358	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	0.358	"	"	"	"	"	
Naphthalene	"	ND	----	0.358	"	"	"	"	"	
2-Nitroaniline	"	ND	----	0.358	"	"	"	"	"	
3-Nitroaniline	"	ND	----	1.08	"	"	"	"	"	
4-Nitroaniline	"	ND	----	0.358	"	"	"	"	"	
Nitrobenzene	"	ND	----	0.358	"	"	"	"	"	
2-Nitrophenol	"	ND	----	0.358	"	"	"	"	"	
4-Nitrophenol	"	ND	----	1.08	"	"	"	"	"	
N-Nitrosodi-n-propylamine	"	ND	----	0.358	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	0.358	"	"	"	"	"	
Pentachlorophenol	"	ND	----	1.08	"	"	"	"	"	
Phenanthrene	"	ND	----	0.358	"	"	"	"	"	
Phenol	"	ND	----	0.358	"	"	"	"	"	
Pyrene	"	ND	----	0.358	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.08	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	0.358	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	0.358	"	"	"	"	"	
<i>Surrogate(s): 2-Fluorobiphenyl</i>			92.3%		30 - 115 %	"			"	

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
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BPG0504-27RE2 (PP05-3-10)		Soil	Sampled: 07/19/06 15:55							
	2-Fluorophenol	68.5%		25 - 121 %		1x			08/06/06 20:38	
	Nitrobenzene-d5	83.0%		23 - 120 %		"			"	
	Phenol-d6	95.6%		24 - 113 %		"			"	
	p-Terphenyl-d14	88.2%		18 - 137 %		"			"	
	2,4,6-Tribromophenol	85.8%		19 - 122 %		"			"	

BPG0504-29RE2 (PP06-2-6)		Soil	Sampled: 07/20/06 11:25							
Acenaphthene	EPA 8270C	ND	----	0.397	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 21:22	
Acenaphthylene	"	ND	----	0.397	"	"	"	"	"	
Anthracene	"	ND	----	0.397	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.397	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.397	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.397	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.397	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.397	"	"	"	"	"	
Benzoic Acid	"	ND	----	1.20	"	"	"	"	"	
Benzyl alcohol	"	ND	----	1.20	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND	----	0.397	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	0.397	"	"	"	"	"	
4-Chloro-3-methylphenol	"	ND	----	0.397	"	"	"	"	"	
4-Chloroaniline	"	ND	----	2.41	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	----	0.397	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	----	0.397	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	----	0.397	"	"	"	"	"	
2-Chloronaphthalene	"	ND	----	0.397	"	"	"	"	"	
2-Chlorophenol	"	ND	----	0.397	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	----	0.397	"	"	"	"	"	
Chrysene	"	ND	----	0.397	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	1.20	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	0.397	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.397	"	"	"	"	"	
Dibenzofuran	"	ND	----	0.397	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.20	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.20	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.20	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	1.20	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	0.397	"	"	"	"	"	
Diethyl phthalate	"	ND	----	0.397	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	1.20	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	0.397	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	1.20	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	2.41	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	0.602	"	"	"	"	"	

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

BPG0504-29RE2 (PP06-2-6)		Soil		Sampled: 07/20/06 11:25						
2,6-Dinitrotoluene	EPA 8270C	ND	----	0.602	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 21:22	
Bis(2-ethylhexyl)phthalate	"	ND	----	2.41	"	"	"	"	"	
Fluoranthene	"	ND	----	0.397	"	"	"	"	"	
Fluorene	"	ND	----	0.397	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	0.397	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	1.20	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	1.20	"	"	"	"	"	
Hexachloroethane	"	ND	----	1.20	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.397	"	"	"	"	"	
Isophorone	"	ND	----	0.397	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	0.397	"	"	"	"	"	
2-Methylphenol	"	ND	----	0.397	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	0.397	"	"	"	"	"	
Naphthalene	"	ND	----	0.397	"	"	"	"	"	
2-Nitroaniline	"	ND	----	0.397	"	"	"	"	"	
3-Nitroaniline	"	ND	----	1.20	"	"	"	"	"	
4-Nitroaniline	"	ND	----	0.397	"	"	"	"	"	
Nitrobenzene	"	ND	----	0.397	"	"	"	"	"	
2-Nitrophenol	"	ND	----	0.397	"	"	"	"	"	
4-Nitrophenol	"	ND	----	1.20	"	"	"	"	"	
N-Nitrosodi-n-propylamine	"	ND	----	0.397	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	0.397	"	"	"	"	"	
Pentachlorophenol	"	ND	----	1.20	"	"	"	"	"	
Phenanthrene	"	ND	----	0.397	"	"	"	"	"	
Phenol	"	ND	----	0.397	"	"	"	"	"	
Pyrene	"	ND	----	0.397	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.20	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	0.397	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	0.397	"	"	"	"	"	

<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>87.7%</i>	<i>30 - 115 %</i>	<i>"</i>	<i>"</i>
	<i>2-Fluorophenol</i>	<i>67.6%</i>	<i>25 - 121 %</i>	<i>"</i>	<i>"</i>
	<i>Nitrobenzene-d5</i>	<i>82.7%</i>	<i>23 - 120 %</i>	<i>"</i>	<i>"</i>
	<i>Phenol-d6</i>	<i>87.4%</i>	<i>24 - 113 %</i>	<i>"</i>	<i>"</i>
	<i>p-Terphenyl-d14</i>	<i>89.4%</i>	<i>18 - 137 %</i>	<i>"</i>	<i>"</i>
	<i>2,4,6-Tribromophenol</i>	<i>77.1%</i>	<i>19 - 122 %</i>	<i>"</i>	<i>"</i>

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Joy B Chang, Project Manager



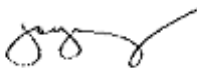
<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-33RE2 (PP07-2-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 12:30</b>						
Acenaphthene	EPA 8270C	ND	----	0.470	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 22:05	
Acenaphthylene	"	ND	----	0.470	"	"	"	"	"	
Anthracene	"	ND	----	0.470	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.470	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.470	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.470	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.470	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.470	"	"	"	"	"	
Benzoic Acid	"	ND	----	1.43	"	"	"	"	"	
Benzyl alcohol	"	ND	----	1.43	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND	----	0.470	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	0.470	"	"	"	"	"	
4-Chloro-3-methylphenol	"	ND	----	0.470	"	"	"	"	"	
4-Chloroaniline	"	ND	----	2.85	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	----	0.470	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	----	0.470	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	----	0.470	"	"	"	"	"	
2-Chloronaphthalene	"	ND	----	0.470	"	"	"	"	"	
2-Chlorophenol	"	ND	----	0.470	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	----	0.470	"	"	"	"	"	
Chrysene	"	ND	----	0.470	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	1.43	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	0.470	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.470	"	"	"	"	"	
Dibenzofuran	"	ND	----	0.470	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.43	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.43	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.43	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	1.43	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	0.470	"	"	"	"	"	
Diethyl phthalate	"	ND	----	0.470	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	1.43	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	0.470	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	1.43	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	2.85	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	0.713	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	----	0.713	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	2.85	"	"	"	"	"	
Fluoranthene	"	ND	----	0.470	"	"	"	"	"	
Fluorene	"	ND	----	0.470	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	0.470	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	1.43	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	1.43	"	"	"	"	"	

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

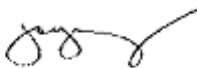
Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

BPG0504-33RE2 (PP07-2-6)		Soil	Sampled: 07/20/06 12:30							
Hexachloroethane	EPA 8270C	ND	----	1.43	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 22:05	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.470	"	"	"	"	"	
Isophorone	"	ND	----	0.470	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	0.470	"	"	"	"	"	
2-Methylphenol	"	ND	----	0.470	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	0.470	"	"	"	"	"	
Naphthalene	"	ND	----	0.470	"	"	"	"	"	
2-Nitroaniline	"	ND	----	0.470	"	"	"	"	"	
3-Nitroaniline	"	ND	----	1.43	"	"	"	"	"	
4-Nitroaniline	"	ND	----	0.470	"	"	"	"	"	
Nitrobenzene	"	ND	----	0.470	"	"	"	"	"	
2-Nitrophenol	"	ND	----	0.470	"	"	"	"	"	
4-Nitrophenol	"	ND	----	1.43	"	"	"	"	"	
N-Nitrosodi-n-propylamine	"	ND	----	0.470	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	0.470	"	"	"	"	"	
Pentachlorophenol	"	ND	----	1.43	"	"	"	"	"	
Phenanthrene	"	ND	----	0.470	"	"	"	"	"	
Phenol	"	ND	----	0.470	"	"	"	"	"	
Pyrene	"	ND	----	0.470	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.43	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	0.470	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	0.470	"	"	"	"	"	
<i>Surrogate(s):</i>										
2-Fluorobiphenyl			80.6%		30 - 115 %	"				"
2-Fluorophenol			62.7%		25 - 121 %	"				"
Nitrobenzene-d5			75.8%		23 - 120 %	"				"
Phenol-d6			81.3%		24 - 113 %	"				"
p-Terphenyl-d14			87.4%		18 - 137 %	"				"
2,4,6-Tribromophenol			75.2%		19 - 122 %	"				"

BPG0504-37RE2 (PP08-3-6)		Soil	Sampled: 07/20/06 14:15							
Acenaphthene	EPA 8270C	ND	----	0.441	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 22:48	
Acenaphthylene	"	ND	----	0.441	"	"	"	"	"	
Anthracene	"	ND	----	0.441	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.441	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.441	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.441	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.441	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.441	"	"	"	"	"	
Benzoic Acid	"	ND	----	1.34	"	"	"	"	"	
Benzyl alcohol	"	ND	----	1.34	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND	----	0.441	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	0.441	"	"	"	"	"	

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Joy B Chang, Project Manager



**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
 Tacoma, WA/USA 98402

Project Name: **TDO**

Project Number: 0415-049-00  
 Project Manager: Kevin Broom

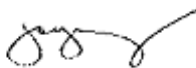
Report Created:  
 08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-37RE2 (PP08-3-6)</b>		<b>Soil</b>		<b>Sampled: 07/20/06 14:15</b>						
4-Chloro-3-methylphenol	EPA 8270C	ND	----	0.441	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 22:48	
4-Chloroaniline	"	ND	----	2.67	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND	----	0.441	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND	----	0.441	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND	----	0.441	"	"	"	"	"	
2-Chloronaphthalene	"	ND	----	0.441	"	"	"	"	"	
2-Chlorophenol	"	ND	----	0.441	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND	----	0.441	"	"	"	"	"	
Chrysene	"	ND	----	0.441	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	1.34	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	0.441	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.441	"	"	"	"	"	
Dibenzofuran	"	ND	----	0.441	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	----	1.34	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	----	1.34	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	----	1.34	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND	----	1.34	"	"	"	"	"	
2,4-Dichlorophenol	"	ND	----	0.441	"	"	"	"	"	
Diethyl phthalate	"	ND	----	0.441	"	"	"	"	"	
2,4-Dimethylphenol	"	ND	----	1.34	"	"	"	"	"	
Dimethyl phthalate	"	ND	----	0.441	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND	----	1.34	"	"	"	"	"	
2,4-Dinitrophenol	"	ND	----	2.67	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND	----	0.668	"	"	"	"	"	
2,6-Dinitrotoluene	"	ND	----	0.668	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	2.67	"	"	"	"	"	
Fluoranthene	"	ND	----	0.441	"	"	"	"	"	
Fluorene	"	ND	----	0.441	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	0.441	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	1.34	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	1.34	"	"	"	"	"	
Hexachloroethane	"	ND	----	1.34	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.441	"	"	"	"	"	
Isophorone	"	ND	----	0.441	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	0.441	"	"	"	"	"	
2-Methylphenol	"	ND	----	0.441	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	0.441	"	"	"	"	"	
Naphthalene	"	ND	----	0.441	"	"	"	"	"	
2-Nitroaniline	"	ND	----	0.441	"	"	"	"	"	
3-Nitroaniline	"	ND	----	1.34	"	"	"	"	"	
4-Nitroaniline	"	ND	----	0.441	"	"	"	"	"	
Nitrobenzene	"	ND	----	0.441	"	"	"	"	"	
2-Nitrophenol	"	ND	----	0.441	"	"	"	"	"	

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-37RE2 (PP08-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 14:15</b>					
4-Nitrophenol	EPA 8270C	ND	----	1.34	mg/kg dry	1x	6080071	08/02/06 11:40	08/06/06 22:48	
N-Nitrosodi-n-propylamine	"	ND	----	0.441	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	0.441	"	"	"	"	"	
Pentachlorophenol	"	ND	----	1.34	"	"	"	"	"	
Phenanthrene	"	ND	----	0.441	"	"	"	"	"	
Phenol	"	ND	----	0.441	"	"	"	"	"	
Pyrene	"	ND	----	0.441	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	1.34	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	0.441	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	0.441	"	"	"	"	"	

<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>77.8%</i>	<i>30 - 115 %</i>	<i>"</i>	<i>"</i>	<i>"</i>
	<i>2-Fluorophenol</i>	<i>59.7%</i>	<i>25 - 121 %</i>	<i>"</i>	<i>"</i>	<i>"</i>
	<i>Nitrobenzene-d5</i>	<i>77.5%</i>	<i>23 - 120 %</i>	<i>"</i>	<i>"</i>	<i>"</i>
	<i>Phenol-d6</i>	<i>79.6%</i>	<i>24 - 113 %</i>	<i>"</i>	<i>"</i>	<i>"</i>
	<i>p-Terphenyl-d14</i>	<i>88.0%</i>	<i>18 - 137 %</i>	<i>"</i>	<i>"</i>	<i>"</i>
	<i>2,4,6-Tribromophenol</i>	<i>68.6%</i>	<i>19 - 122 %</i>	<i>"</i>	<i>"</i>	<i>"</i>

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Percent Dry Weight (Solids) per Standard Methods**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-15 (PP02-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 12:15</b>					
% Solids	NCA SOP	87.9	----	0.00	% by Weight	1x	6071189	07/27/06 12:03	07/27/06 12:03	
<b>BPG0504-27 (PP05-3-10)</b>		<b>Soil</b>			<b>Sampled: 07/19/06 15:55</b>					
% Solids	NCA SOP	92.0	----	0.00	% by Weight	1x	6071189	07/27/06 12:03	07/27/06 12:03	
<b>BPG0504-29 (PP06-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 11:25</b>					
% Solids	NCA SOP	82.7	----	0.00	% by Weight	1x	6071189	07/27/06 12:03	07/27/06 12:03	
<b>BPG0504-33 (PP07-2-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 12:30</b>					
% Solids	NCA SOP	87.6	----	0.00	% by Weight	1x	6071189	07/27/06 12:03	07/27/06 12:03	
<b>BPG0504-37 (PP08-3-6)</b>		<b>Soil</b>			<b>Sampled: 07/20/06 14:15</b>					
% Solids	NCA SOP	74.7	----	0.00	% by Weight	1x	6071189	07/27/06 12:03	07/27/06 12:03	

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Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G25024      Water Preparation Method: EPA 3020A**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

**Blank (6G25024-BLK1)** Extracted: 07/25/06 10:19

Lead	EPA 6020	ND	---	0.00100	mg/l	1x	--	--	--	--	--	--	07/27/06 02:33	
Chromium	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Cadmium	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Arsenic	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	

**LCS (6G25024-BS1)** Extracted: 07/25/06 10:19

Lead	EPA 6020	0.0836	---	0.00100	mg/l	1x	--	0.0800	104%	(80-120)	--	--	07/27/06 02:38	
Cadmium	"	0.0806	---	0.00100	"	"	--	"	101%	"	--	--	"	
Chromium	"	0.0910	---	0.00100	"	"	--	"	114%	"	--	--	"	
Arsenic	"	0.0771	---	0.00100	"	"	--	"	96.4%	"	--	--	"	

**Duplicate (6G25024-DUP1)** QC Source: BPG0484-14      Extracted: 07/25/06 10:19

Arsenic	EPA 6020	0.0238	---	0.00100	mg/l	1x	0.0248	--	--	--	4.12%	(20)	07/27/06 03:07	
Cadmium	"	ND	---	0.00100	"	"	ND	--	--	--	34.1%	"	"	DP-1
Chromium	"	0.00128	---	0.00100	"	"	0.00125	--	--	--	2.37%	"	"	
Lead	"	ND	---	0.00100	"	"	ND	--	--	--	12.2%	"	"	

**Matrix Spike (6G25024-MS1)** QC Source: BPG0484-14      Extracted: 07/25/06 10:19

Lead	EPA 6020	0.0769	---	0.00100	mg/l	1x	0.000230	0.0800	95.8%	(80-120)	--	--	07/27/06 02:50	
Chromium	"	0.0849	---	0.00100	"	"	0.00125	"	105%	"	--	--	"	
Arsenic	"	0.100	---	0.00100	"	"	0.0248	"	94.0%	(75-125)	--	--	"	
Cadmium	"	0.0746	---	0.00100	"	"	0.000170	"	93.0%	(80-120)	--	--	"	

**Post Spike (6G25024-PS1)** QC Source: BPG0484-14      Extracted: 07/25/06 10:19

Lead	EPA 6020	0.0992	---		ug/ml	1x	0.000230	0.0995	99.5%	(75-125)	--	--	07/27/06 02:44	
Chromium	"	0.111	---		"	"	0.00125	0.100	110%	"	--	--	"	
Cadmium	"	0.0974	---		"	"	0.000170	"	97.2%	"	--	--	"	
Arsenic	"	0.128	---		"	"	0.0248	"	103%	"	--	--	"	

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G25055      Soil Preparation Method: EPA 3050B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

**Blank (6G25055-BLK1)** Extracted: 07/25/06 15:54

Cadmium	EPA 6020	ND	---	0.510	mg/kg wet	1x	--	--	--	--	--	--	07/26/06 19:15	
Arsenic	"	ND	---	0.510	"	"	--	--	--	--	--	--	"	
Chromium	"	ND	---	0.510	"	"	--	--	--	--	--	--	"	
Lead	"	ND	---	0.510	"	"	--	--	--	--	--	--	"	

**LCS (6G25055-BS1)** Extracted: 07/25/06 15:54

Cadmium	EPA 6020	45.3	---	0.556	mg/kg wet	1x	--	44.4	102%	(80-120)	--	--	07/26/06 19:21	
Lead	"	44.8	---	0.556	"	"	--	"	101%	"	--	--	"	
Chromium	"	45.3	---	0.556	"	"	--	"	102%	"	--	--	"	
Arsenic	"	44.5	---	0.556	"	"	--	"	100%	"	--	--	"	

**Duplicate (6G25055-DUP1)** QC Source: BPG0427-01RE1      Extracted: 07/25/06 15:54

Arsenic	EPA 6020	5.37	---	0.681	mg/kg dry	1x	5.41	--	--	--	0.742% (30)	--	07/26/06 19:38	
Lead	"	4.09	---	0.681	"	"	4.27	--	--	--	4.31%	"	"	
Chromium	"	46.2	---	0.681	"	"	53.3	--	--	--	14.3%	"	"	
Cadmium	"	ND	---	0.681	"	"	ND	--	--	--	33.1%	"	"	<b>DP-1</b>

**Matrix Spike (6G25055-MS1)** QC Source: BPG0427-01RE1      Extracted: 07/25/06 15:54

Arsenic	EPA 6020	53.3	---	0.637	mg/kg dry	1x	5.41	51.0	93.9%	(57-125)	--	--	07/26/06 19:32	
Cadmium	"	51.2	---	0.637	"	"	0.151	"	100%	(80-120)	--	--	"	
Chromium	"	108	---	0.637	"	"	53.3	"	107%	(30-163)	--	--	"	
Lead	"	54.9	---	0.637	"	"	4.27	"	99.3%	(29-166)	--	--	"	

**Post Spike (6G25055-PS1)** QC Source: BPG0427-01RE1      Extracted: 07/25/06 15:54

Chromium	EPA 6020	0.182	---		ug/ml	1x	0.0809	0.100	101%	(75-125)	--	--	07/26/06 19:26	
Arsenic	"	0.110	---		"	"	0.00822	"	102%	"	--	--	"	
Cadmium	"	0.0979	---		"	"	0.000230	"	97.7%	"	--	--	"	
Lead	"	0.103	---		"	"	0.00648	0.0995	97.0%	"	--	--	"	

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

<b>QC Batch: 6G27061</b>	<b>Soil Preparation Method: EPA 7471A</b>
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Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6G27061-BLK1)</b>								Extracted: 07/27/06 17:47						
Mercury	EPA 7471A	ND	---	0.423	mg/kg wet	1x	--	--	--	--	--	--	07/28/06 11:28	
<b>LCS (6G27061-BS1)</b>								Extracted: 07/27/06 17:47						
Mercury	EPA 7471A	0.699	---	0.400	mg/kg wet	1x	--	0.667	105%	(80-120)	--	--	07/28/06 11:30	
<b>LCS Dup (6G27061-BSD1)</b>								Extracted: 07/27/06 17:47						
Mercury	EPA 7471A	0.583	---	0.349	mg/kg wet	1x	--	0.581	100%	(80-120)	18.1% (20)		07/28/06 11:33	
<b>Duplicate (6G27061-DUP1)</b>								QC Source: BPG0504-10		Extracted: 07/27/06 17:47				
Mercury	EPA 7471A	1.69	---	0.970	mg/kg dry	2x	2.30	--	--	--	30.6% (30)		07/28/06 13:19	Q-14
<b>Matrix Spike (6G27061-MS1)</b>								QC Source: BPG0504-10		Extracted: 07/27/06 17:47				
Mercury	EPA 7471A	2.11	---	0.983	mg/kg dry	2x	2.30	0.819	-23.2%	(70-130)	--	--	07/28/06 13:16	MS-2

<b>QC Batch: 6G28043</b>	<b>Water Preparation Method: EPA 7470A</b>
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Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6G28043-BLK1)</b>								Extracted: 07/28/06 17:03						
Mercury	EPA 7470A	ND	---	0.000200	mg/l	1x	--	--	--	--	--	--	07/31/06 12:25	
<b>LCS (6G28043-BS1)</b>								Extracted: 07/28/06 17:03						
Mercury	EPA 7470A	0.00479	---	0.000200	mg/l	1x	--	0.00500	95.8%	(80-120)	--	--	07/31/06 12:27	
<b>LCS Dup (6G28043-BSD1)</b>								Extracted: 07/28/06 17:03						
Mercury	EPA 7470A	0.00461	---	0.000200	mg/l	1x	--	0.00500	92.2%	(80-120)	3.83% (20)		07/31/06 12:30	
<b>Duplicate (6G28043-DUP1)</b>								QC Source: BPG0341-14		Extracted: 07/28/06 17:03				
Mercury	EPA 7470A	ND	---	0.000200	mg/l	1x	ND	--	--	--	NR (20)		07/31/06 12:37	
<b>Matrix Spike (6G28043-MS1)</b>								QC Source: BPG0341-14		Extracted: 07/28/06 17:03				
Mercury	EPA 7470A	0.00458	---	0.000200	mg/l	1x	ND	0.00500	91.6%	(70-130)	--	--	07/31/06 12:32	
<b>Matrix Spike (6G28043-MS2)</b>								QC Source: BPG0570-04		Extracted: 07/28/06 17:03				
Mercury	EPA 7470A	0.00424	---	0.000200	mg/l	1x	ND	0.00500	84.8%	(70-130)	--	--	07/31/06 12:35	

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Joy B Chang, Project Manager




<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results**  
TestAmerica - Seattle, WA

**QC Batch: 6G28045      Water Preparation Method: EPA 7470A**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6G28045-BLK1)</b>								Extracted: 07/28/06 17:13						
Mercury	EPA 7470A	ND	---	0.000200	mg/l	1x	--	--	--	--	--	--	07/29/06 17:53	
<b>LCS (6G28045-BS1)</b>								Extracted: 07/28/06 17:13						
Mercury	EPA 7470A	0.00486	---	0.000200	mg/l	1x	--	0.00500	97.2%	(80-120)	--	--	07/29/06 17:55	
<b>Duplicate (6G28045-DUP1)</b>				QC Source: BPG0504-04				Extracted: 07/28/06 17:13						
Mercury	EPA 7470A	ND	---	0.000200	mg/l	1x	ND	--	--	--	NR (20)		07/29/06 18:08	
<b>Matrix Spike (6G28045-MS1)</b>				QC Source: BPG0504-04				Extracted: 07/28/06 17:13						
Mercury	EPA 7470A	0.00479	---	0.000200	mg/l	1x	ND	0.00500	95.8%	(70-130)	--	--	07/29/06 18:06	

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Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method) - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G25050**      **Soil Preparation Method: EPA 5035**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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**Blank (6G25050-BLK1)**

Extracted: 07/25/06 08:50

Acetone	EPA 8260B	ND	---	30.0	ug/kg wet	1x	--	--	--	--	--	--	07/25/06 10:56	
Benzene	"	ND	---	1.50	"	"	--	--	--	--	--	--	"	
Bromobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bromochloromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bromodichloromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bromoform	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bromomethane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
2-Butanone	"	ND	---	15.0	"	"	--	--	--	--	--	--	"	
n-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Carbon disulfide	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Chloroethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
Chloromethane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Dibromochloromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane (EDB)	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Dibromomethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane	"	ND	---	1.25	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	3.00	"	"	--	--	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	1.25	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	4.00	"	"	--	--	--	--	--	--	"	

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method) - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G25050**      **Soil Preparation Method: EPA 5035**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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**Blank (6G25050-BLK1)**

Extracted: 07/25/06 08:50

Hexachlorobutadiene	EPA 8260B	ND	---	10.0	ug/kg wet	1x	--	--	--	--	--	--	07/25/06 10:56	Q-40
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2-Hexanone	"	ND	---	20.0	"	"	--	--	--	--	--	--	"	
Isopropylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
p-Isopropyltoluene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	Q-41
4-Methyl-2-pentanone	"	ND	---	20.0	"	"	--	--	--	--	--	--	"	
Methylene chloride	"	ND	---	3.50	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	1.50	"	"	--	--	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	1.25	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Total Xylenes	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	

<i>Surrogate(s):</i> 1,2-DCA-d4	<i>Recovery:</i> 116%	<i>Limits:</i> 60-140%	"	07/25/06 10:56
Toluene-d8	99.8%	60-140%	"	"
4-BFB	110%	60-140%	"	"

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds (Special List) per EPA Method 8260B (Low Soil Method) - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G25050      Soil Preparation Method: EPA 5035**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>LCS (6G25050-BS1)</b>														
<b>Extracted: 07/25/06 08:50</b>														
Acetone	EPA 8260B	402	---	30.0	ug/kg wet	1x	--	400	100%	(70-130)	--	--	07/25/06 09:17	
Benzene	"	40.5	---	1.50	"	"	--	40.0	101%	"	--	--	"	
2-Butanone	"	464	---	15.0	"	"	--	400	116%	"	--	--	"	
Carbon disulfide	"	40.7	---	3.00	"	"	--	40.0	102%	"	--	--	"	
Chlorobenzene	"	39.6	---	2.00	"	"	--	"	99.0%	"	--	--	"	
1,1-Dichloroethane	"	42.7	---	2.00	"	"	--	"	107%	"	--	--	"	
1,1-Dichloroethene	"	41.7	---	3.00	"	"	--	"	104%	"	--	--	"	
cis-1,2-Dichloroethene	"	41.7	---	3.00	"	"	--	"	104%	"	--	--	"	
Ethylbenzene	"	39.5	---	4.00	"	"	--	"	98.8%	"	--	--	"	
Hexachlorobutadiene	"	36.2	---	10.0	"	"	--	"	90.5%	"	--	--	"	Q-40
4-Methyl-2-pentanone	"	463	---	20.0	"	"	--	400	116%	"	--	--	"	
Tetrachloroethene	"	39.9	---	2.00	"	"	--	40.0	99.8%	"	--	--	"	
Toluene	"	40.5	---	1.50	"	"	--	"	101%	"	--	--	"	
1,1,1-Trichloroethane	"	42.5	---	2.50	"	"	--	"	106%	"	--	--	"	
Trichloroethene	"	40.3	---	2.50	"	"	--	"	101%	"	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4      Recovery: 100%      Limits: 60-140%      "</i>													07/25/06 09:17	
<i>Toluene-d8      102%      60-140%      "</i>													"	
<i>4-BFB      105%      60-140%      "</i>													"	

<b>LCS Dup (6G25050-BSD1)</b>														
<b>Extracted: 07/25/06 08:50</b>														
Acetone	EPA 8260B	387	---	30.0	ug/kg wet	1x	--	400	96.8%	(70-130)	3.80% (30)		07/25/06 09:41	
Benzene	"	39.9	---	1.50	"	"	--	40.0	99.8%	"	1.49%	"	"	
2-Butanone	"	421	---	15.0	"	"	--	400	105%	"	9.72%	"	"	
Carbon disulfide	"	41.2	---	3.00	"	"	--	40.0	103%	"	1.22%	"	"	
Chlorobenzene	"	38.0	---	2.00	"	"	--	"	95.0%	"	4.12%	"	"	
1,1-Dichloroethane	"	42.5	---	2.00	"	"	--	"	106%	"	0.469%	"	"	
1,1-Dichloroethene	"	41.2	---	3.00	"	"	--	"	103%	"	1.21%	"	"	
cis-1,2-Dichloroethene	"	41.9	---	3.00	"	"	--	"	105%	"	0.478%	"	"	
Ethylbenzene	"	38.2	---	4.00	"	"	--	"	95.5%	"	3.35%	"	"	
Hexachlorobutadiene	"	29.4	---	10.0	"	"	--	"	73.5%	"	20.7%	"	"	Q-40
4-Methyl-2-pentanone	"	425	---	20.0	"	"	--	400	106%	"	8.56%	"	"	
Tetrachloroethene	"	38.2	---	2.00	"	"	--	40.0	95.5%	"	4.35%	"	"	
Toluene	"	39.4	---	1.50	"	"	--	"	98.5%	"	2.75%	"	"	
1,1,1-Trichloroethane	"	42.1	---	2.50	"	"	--	"	105%	"	0.946%	"	"	
Trichloroethene	"	40.7	---	2.50	"	"	--	"	102%	"	0.988%	"	"	
<i>Surrogate(s): 1,2-DCA-d4      Recovery: 95.2%      Limits: 60-140%      "</i>													07/25/06 09:41	
<i>Toluene-d8      101%      60-140%      "</i>													"	
<i>4-BFB      103%      60-140%      "</i>													"	

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results**  
TestAmerica - Seattle, WA

**QC Batch: 6G26054**      **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6G26054-BLK1)</b>										Extracted: 07/26/06 14:59				
Acetone	EPA 8260B	ND	---	10.0	ug/l	1x	--	--	--	--	--	--	07/26/06 20:22	
Benzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Bromobenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Bromochloromethane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Bromodichloromethane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Bromoform	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Bromomethane	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
2-Butanone	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
n-Butylbenzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Carbon disulfide	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Chloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Chloromethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Dibromochloromethane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Dibromomethane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager





<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G26054      Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6G26054-BLK1)</b>													<b>Extracted: 07/26/06 14:59</b>	
Hexachlorobutadiene	EPA 8260B	ND	---	2.50	ug/l	1x	--	--	--	--	--	--	07/26/06 20:22	
Methyl tert-butyl ether	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
n-Hexane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2-Hexanone	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Isopropylbenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
p-Isopropyltoluene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	---	2.00	"	"	--	--	--	--	--	--	"	
Methylene chloride	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Total Xylenes	"	ND	---	0.750	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s):</i>	<i>1,2-DCA-d4</i>	<i>Recovery:</i>	<i>86.2%</i>	<i>Limits:</i>	<i>70-130%</i>	<i>"</i>							<i>07/26/06 20:22</i>	
	<i>Toluene-d8</i>		<i>96.2%</i>		<i>70-130%</i>	<i>"</i>							<i>"</i>	
	<i>4-BFB</i>		<i>96.0%</i>		<i>70-130%</i>	<i>"</i>							<i>"</i>	

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results**  
TestAmerica - Seattle, WA

**QC Batch: 6G26054      Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>LCS (6G26054-BS1)</b>													<b>Extracted: 07/26/06 14:59</b>	
Benzene	EPA 8260B	34.1	---	0.200	ug/l	1x	--	40.0	85.2%	(80-120)	--	--	07/26/06 19:04	
Chlorobenzene	"	40.0	---	0.200	"	"	--	"	100%	(79-120)	--	--	"	
1,1-Dichloroethene	"	40.1	---	0.200	"	"	--	"	100%	(80-120)	--	--	"	
Methyl tert-butyl ether	"	39.1	---	1.00	"	"	--	"	97.8%	(79-120)	--	--	"	
Tetrachloroethene	"	42.6	---	0.200	"	"	--	"	106%	(75-125)	--	--	"	
Toluene	"	36.7	---	0.200	"	"	--	"	91.8%	(78-120)	--	--	"	
Trichloroethene	"	36.1	---	0.200	"	"	--	"	90.2%	(80-120)	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery:</i>	<i>87.2%</i>			<i>Limits:</i>	<i>70-130%</i>	<i>"</i>						<i>07/26/06 19:04</i>
<i>Toluene-d8</i>			<i>97.2%</i>				<i>70-130%</i>	<i>"</i>						<i>"</i>
<i>4-BFB</i>			<i>94.5%</i>				<i>70-130%</i>	<i>"</i>						<i>"</i>

<b>LCS Dup (6G26054-BSD1)</b>													<b>Extracted: 07/26/06 14:59</b>	
Benzene	EPA 8260B	34.3	---	0.200	ug/l	1x	--	40.0	85.8%	(80-120)	0.585% (20)		07/26/06 19:31	
Chlorobenzene	"	39.1	---	0.200	"	"	--	"	97.8%	(79-120)	2.28%	"	"	
1,1-Dichloroethene	"	38.4	---	0.200	"	"	--	"	96.0%	(80-120)	4.33%	"	"	
Methyl tert-butyl ether	"	39.7	---	1.00	"	"	--	"	99.2%	(79-120)	1.52%	"	"	
Tetrachloroethene	"	41.2	---	0.200	"	"	--	"	103%	(75-125)	3.34%	"	"	
Toluene	"	36.0	---	0.200	"	"	--	"	90.0%	(78-120)	1.93%	"	"	
Trichloroethene	"	35.5	---	0.200	"	"	--	"	88.8%	(80-120)	1.68%	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery:</i>	<i>88.0%</i>			<i>Limits:</i>	<i>70-130%</i>	<i>"</i>						<i>07/26/06 19:31</i>
<i>Toluene-d8</i>			<i>96.5%</i>				<i>70-130%</i>	<i>"</i>						<i>"</i>
<i>4-BFB</i>			<i>96.2%</i>				<i>70-130%</i>	<i>"</i>						<i>"</i>

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results**  
TestAmerica - Seattle, WA

**QC Batch: 6G27057**      **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6G27057-BLK1)</b>													<b>Extracted: 07/27/06 08:26</b>	
Acetone	EPA 8260B	ND	---	5.00	ug/l	1x	--	--	--	--	--	--	07/27/06 11:31	
Benzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Bromobenzene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
Bromochloromethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Bromodichloromethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Bromoform	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Bromomethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2-Butanone	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
n-Butylbenzene	"	0.230	---	0.100	"	"	--	--	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
Carbon disulfide	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chloroethane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chloromethane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
Dibromochloromethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Dibromomethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager




<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G27057      Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6G27057-BLK1)</b>										<b>Extracted: 07/27/06 08:26</b>				
Hexachlorobutadiene	EPA 8260B	ND	---	1.25	ug/l	1x	--	--	--	--	--	--	07/27/06 11:31	
Methyl tert-butyl ether	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
n-Hexane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
2-Hexanone	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Isopropylbenzene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
p-Isopropyltoluene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Methylene chloride	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	1.25	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	0.870	---	0.500	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	0.700	---	0.500	"	"	--	--	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	0.125	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	0.250	"	"	--	--	--	--	--	--	"	
Total Xylenes	"	ND	---	0.375	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery:</i>	<i>90.2%</i>	<i>Limits:</i>	<i>70-130%</i>	<i>"</i>							<i>07/27/06 11:31</i>	
<i>Toluene-d8</i>			<i>97.2%</i>		<i>70-130%</i>	<i>"</i>							<i>"</i>	
<i>4-BFB</i>			<i>95.0%</i>		<i>70-130%</i>	<i>"</i>							<i>"</i>	

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G27057      Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>LCS (6G27057-BS1)</b>													<b>Extracted: 07/27/06 08:26</b>	
Benzene	EPA 8260B	34.7	---	0.100	ug/l	1x	--	40.0	86.8%	(80-120)	--	--	07/27/06 09:23	
Chlorobenzene	"	39.7	---	0.100	"	"	--	"	99.2%	(79-120)	--	--	"	
1,1-Dichloroethene	"	38.8	---	0.100	"	"	--	"	97.0%	(80-120)	--	--	"	
Methyl tert-butyl ether	"	38.9	---	0.500	"	"	--	"	97.2%	(79-120)	--	--	"	
Toluene	"	36.0	---	0.100	"	"	--	"	90.0%	(78-120)	--	--	"	
Trichloroethene	"	36.5	---	0.100	"	"	--	"	91.2%	(80-120)	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery:</i>	<i>90.2%</i>	<i>Limits: 70-130%</i>		<i>"</i>								<i>07/27/06 09:23</i>
<i>Toluene-d8</i>		<i>95.0%</i>	<i>70-130%</i>		<i>"</i>								<i>"</i>	
<i>4-BFB</i>		<i>95.8%</i>	<i>70-130%</i>		<i>"</i>								<i>"</i>	

<b>Matrix Spike (6G27057-MS1)</b>													<b>QC Source: BPG0496-07</b>		<b>Extracted: 07/27/06 08:26</b>	
Benzene	EPA 8260B	39.1	---	0.100	ug/l	1x	ND	40.0	97.8%	(75-126)	--	--	07/27/06 09:57			
Chlorobenzene	"	44.8	---	0.100	"	"	ND	"	112%	(75-125)	--	--	"			
1,1-Dichloroethene	"	46.0	---	0.100	"	"	ND	"	115%	"	--	--	"			
Methyl tert-butyl ether	"	44.3	---	0.500	"	"	ND	"	111%	(70-128)	--	--	"			
Toluene	"	41.3	---	0.100	"	"	0.120	"	103%	(75-125)	--	--	"			
Trichloroethene	"	42.7	---	0.100	"	"	ND	"	107%	"	--	--	"			
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery:</i>	<i>90.5%</i>	<i>Limits: 70-130%</i>		<i>"</i>								<i>07/27/06 09:57</i>		
<i>Toluene-d8</i>		<i>95.0%</i>	<i>70-130%</i>		<i>"</i>								<i>"</i>			
<i>4-BFB</i>		<i>93.2%</i>	<i>70-130%</i>		<i>"</i>								<i>"</i>			

<b>Matrix Spike Dup (6G27057-MSD1)</b>													<b>QC Source: BPG0496-07</b>		<b>Extracted: 07/27/06 08:26</b>	
Benzene	EPA 8260B	35.7	---	0.100	ug/l	1x	ND	40.0	89.2%	(75-126)	9.09% (20)		07/27/06 10:41			
Chlorobenzene	"	40.4	---	0.100	"	"	ND	"	101%	(75-125)	10.3%	"	"			
1,1-Dichloroethene	"	39.8	---	0.100	"	"	ND	"	99.5%	"	14.5% (30)	"	"			
Methyl tert-butyl ether	"	41.7	---	0.500	"	"	ND	"	104%	(70-128)	6.05%	"	"			
Toluene	"	36.9	---	0.100	"	"	0.120	"	92.0%	(75-125)	11.3% (20)	"	"			
Trichloroethene	"	36.7	---	0.100	"	"	ND	"	91.8%	"	15.1%	"	"			
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery:</i>	<i>87.0%</i>	<i>Limits: 70-130%</i>		<i>"</i>								<i>07/27/06 10:41</i>		
<i>Toluene-d8</i>		<i>96.2%</i>	<i>70-130%</i>		<i>"</i>								<i>"</i>			
<i>4-BFB</i>		<i>95.5%</i>	<i>70-130%</i>		<i>"</i>								<i>"</i>			

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Polynuclear Aromatic Compounds by GC/MS with High Volume Injection - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G25019**      **Water Preparation Method: EPA 3520C**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
<b>Blank (6G25019-BLK2)</b>													<b>Extracted: 07/25/06 13:15</b>			
Acenaphthene	EPA 8270C-HVI	ND	---	0.0500	ug/l	1x	--	--	--	--	--	--	08/03/06 13:28			
Acenaphthylene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"			
Anthracene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"			
Benzo (a) anthracene	"	ND	---	0.00500	"	"	--	--	--	--	--	--	"			
Benzo (a) pyrene	"	ND	---	0.00500	"	"	--	--	--	--	--	--	"			
Benzo (b) fluoranthene	"	ND	---	0.00500	"	"	--	--	--	--	--	--	"			
Benzo (k) fluoranthene	"	ND	---	0.00500	"	"	--	--	--	--	--	--	"			
Benzo (ghi) perylene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"			
Chrysene	"	ND	---	0.00500	"	"	--	--	--	--	--	--	"			
Dibenz (a,h) anthracene	"	ND	---	0.00500	"	"	--	--	--	--	--	--	"			
Fluoranthene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"			
Fluorene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"			
Indeno (1,2,3-cd) pyrene	"	ND	---	0.00500	"	"	--	--	--	--	--	--	"			
1-Methylnaphthalene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"			
2-Methylnaphthalene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"			
Naphthalene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"			
Phenanthrene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"			
Pyrene	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"			
<i>Surrogate(s): Benzo (a) pyrene-d12</i>													<i>Recovery: 84.2%</i>	<i>Limits: 20-125%</i>	<i>"</i>	<i>08/03/06 13:28</i>
<i>1-Methylnaphthalene-d10</i>													<i>91.2%</i>	<i>39-125%</i>	<i>"</i>	<i>"</i>
<i>2,4,6-TBP</i>													<i>274%</i>	<i>26-145%</i>	<i>"</i>	<i>"</i>

<b>LCS (6G25019-BS2)</b>													<b>Extracted: 07/25/06 13:15</b>	
Acenaphthene	EPA 8270C-HVI	7.55	---	0.500	ug/l	10x	--	10.0	75.5%	(44-125)	--	--	08/03/06 12:22	
Acenaphthylene	"	7.56	---	0.500	"	"	--	"	75.6%	(51-125)	--	--	"	
Anthracene	"	9.96	---	0.500	"	"	--	"	99.6%	(50-125)	--	--	"	
Benzo (a) anthracene	"	7.89	---	0.0500	"	"	--	"	78.9%	"	--	--	"	
Benzo (a) pyrene	"	8.02	---	0.0500	"	"	--	"	80.2%	(47-125)	--	--	"	
Benzo (b) fluoranthene	"	7.18	---	0.0500	"	"	--	"	71.8%	(50-125)	--	--	"	
Benzo (k) fluoranthene	"	8.74	---	0.0500	"	"	--	"	87.4%	(46-125)	--	--	"	
Benzo (ghi) perylene	"	8.40	---	0.500	"	"	--	"	84.0%	(49-125)	--	--	"	
Chrysene	"	8.06	---	0.0500	"	"	--	"	80.6%	(53-125)	--	--	"	
Dibenz (a,h) anthracene	"	8.62	---	0.0500	"	"	--	"	86.2%	(47-125)	--	--	"	
Fluoranthene	"	9.81	---	0.500	"	"	--	"	98.1%	(55-125)	--	--	"	
Fluorene	"	8.83	---	0.500	"	"	--	"	88.3%	(52-125)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	8.51	---	0.0500	"	"	--	"	85.1%	(49-125)	--	--	"	
1-Methylnaphthalene	"	7.76	---	0.500	"	"	--	"	77.6%	(37-125)	--	--	"	
2-Methylnaphthalene	"	7.18	---	0.500	"	"	--	"	71.8%	(40-125)	--	--	"	

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Polynuclear Aromatic Compounds by GC/MS with High Volume Injection - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G25019 Water Preparation Method: EPA 3520C**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

**LCS (6G25019-BS2)**

Extracted: 07/25/06 13:15

Naphthalene	EPA 8270C-HVI	7.59	---	0.500	ug/l	10x	--	10.0	75.9%	(42-125)	--	--	08/03/06 12:22	
Phenanthrene	"	8.30	---	0.500	"	"	--	"	83.0%	(47-125)	--	--	"	
Pyrene	"	7.94	---	0.500	"	"	--	"	79.4%	"	--	--	"	

<i>Surrogate(s):</i>	<i>Benzo (a) pyrene-d12</i>	<i>Recovery:</i>	<i>83.0%</i>	<i>Limits:</i>	<i>20-125%</i>	<i>"</i>	<i>08/03/06 12:22</i>
	<i>1-Methylnaphthalene-d10</i>		<i>102%</i>		<i>39-125%</i>	<i>"</i>	<i>"</i>

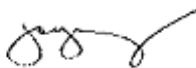
**LCS Dup (6G25019-BSD2)**

Extracted: 07/25/06 13:15

Acenaphthene	EPA 8270C-HVI	6.44	---	0.500	ug/l	10x	--	10.0	64.4%	(44-125)	15.9%	(35)	08/03/06 12:55	
Acenaphthylene	"	6.30	---	0.500	"	"	--	"	63.0%	(51-125)	18.2%	"	"	
Anthracene	"	9.52	---	0.500	"	"	--	"	95.2%	(50-125)	4.52%	"	"	
Benzo (a) anthracene	"	7.54	---	0.0500	"	"	--	"	75.4%	"	4.54%	"	"	
Benzo (a) pyrene	"	7.94	---	0.0500	"	"	--	"	79.4%	(47-125)	1.00%	"	"	
Benzo (b) fluoranthene	"	6.84	---	0.0500	"	"	--	"	68.4%	(50-125)	4.85%	"	"	
Benzo (k) fluoranthene	"	7.23	---	0.0500	"	"	--	"	72.3%	(46-125)	18.9%	"	"	
Benzo (ghi) perylene	"	8.26	---	0.500	"	"	--	"	82.6%	(49-125)	1.68%	"	"	
Chrysene	"	7.73	---	0.0500	"	"	--	"	77.3%	(53-125)	4.18%	"	"	
Dibenz (a,h) anthracene	"	8.71	---	0.0500	"	"	--	"	87.1%	(47-125)	1.04%	"	"	
Fluoranthene	"	8.94	---	0.500	"	"	--	"	89.4%	(55-125)	9.28%	"	"	
Fluorene	"	7.30	---	0.500	"	"	--	"	73.0%	(52-125)	19.0%	"	"	
Indeno (1,2,3-cd) pyrene	"	8.56	---	0.0500	"	"	--	"	85.6%	(49-125)	0.586%	"	"	
1-Methylnaphthalene	"	6.46	---	0.500	"	"	--	"	64.6%	(37-125)	18.3%	"	"	
2-Methylnaphthalene	"	5.98	---	0.500	"	"	--	"	59.8%	(40-125)	18.2%	"	"	
Naphthalene	"	6.22	---	0.500	"	"	--	"	62.2%	(42-125)	19.8%	"	"	
Phenanthrene	"	7.86	---	0.500	"	"	--	"	78.6%	(47-125)	5.45%	"	"	
Pyrene	"	7.87	---	0.500	"	"	--	"	78.7%	"	0.886%	"	"	

<i>Surrogate(s):</i>	<i>Benzo (a) pyrene-d12</i>	<i>Recovery:</i>	<i>86.2%</i>	<i>Limits:</i>	<i>20-125%</i>	<i>"</i>	<i>08/03/06 12:55</i>
	<i>1-Methylnaphthalene-d10</i>		<i>87.0%</i>		<i>39-125%</i>	<i>"</i>	<i>"</i>
	<i>2,4,6-TBP</i>		<i>108%</i>		<i>26-145%</i>	<i>"</i>	<i>"</i>

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Conventional Chemistry Parameters by APHA/EPA Methods - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6H08006**      **Soil Preparation Method: Special Procedure**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6H08006-BLK1)</b>								Extracted: 08/08/06 09:03						
Hexavalent Chromium	EPA 7196A	ND	---	1.0	mg/kg wet	1x	--	--	--	--	--	--	08/09/06 19:52	
<b>LCS (6H08006-BS1)</b>								Extracted: 08/08/06 09:03						
Hexavalent Chromium	EPA 7196A	22	---	1.0	mg/kg wet	1x	--	25.0	88.0%	(80-120)	--	--	08/09/06 19:52	
<b>Duplicate (6H08006-DUP1)</b>						QC Source: BPG0504-33		Extracted: 08/08/06 09:03						
Hexavalent Chromium	EPA 7196A	ND	---	1.1	mg/kg dry	1x	ND	--	--	--	NR (30)	--	08/09/06 19:52	
<b>Matrix Spike (6H08006-MS1)</b>						QC Source: BPG0504-33		Extracted: 08/08/06 09:03						
Hexavalent Chromium	EPA 7196A	24	---	1.1	mg/kg dry	1x	ND	28.7	83.6%	(75-125)	--	--	08/09/06 19:52	

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6G26051      Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6G26051-BLK1)</b>										Extracted: 07/26/06 19:51				
Dry Weight	BSOPSPL00 3R08	100	---	1.00	%	1x	--	--	--	--	--	--	07/27/06 00:00	

**QC Batch: 6G26052      Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6G26052-BLK1)</b>										Extracted: 07/26/06 19:53				
Dry Weight	BSOPSPL00 3R08	100	---	1.00	%	1x	--	--	--	--	--	--	07/27/06 00:00	

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<b>Geo Engineers - Tacoma</b> 1101 Fawcett Ave, Suite 200 Tacoma, WA/USA 98402	Project Name: <b>TDO</b> Project Number: 0415-049-00 Project Manager: Kevin Broom	Report Created: 08/16/06 12:15
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**Purgeable Petroleum Hydrocarbons - Laboratory Quality Control Results**  
 TestAmerica - Nashville, TN

**QC Batch: 6074903      Soil Preparation Method: EPA 5035A (GC)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6074903-BLK1)</b>													Extracted: 07/27/06 10:21	
GRO as Gasoline	NWTPH-Gx	ND	---	0.100	mg/kg	0.02x	--	--	--	--	--	--	07/27/06 14:52	
<i>Surrogate(s): a,a,a-Trifluorotoluene</i>		<i>Recovery: 122%</i>		<i>Limits: 56-145%</i>		<i>"</i>						07/27/06 14:52		

<b>LCS (6074903-BS2)</b>													Extracted: 07/20/06 14:40	
GRO as Gasoline	NWTPH-Gx	8510	---		ug/L	0.02x	--	10000	85%	(73-127)	--	--	07/28/06 03:57	
<i>Surrogate(s): a,a,a-Trifluorotoluene</i>		<i>Recovery: 128%</i>		<i>Limits: 56-145%</i>		<i>"</i>						07/28/06 03:57		

**QC Batch: 6074959      Water Preparation Method: EPA 5030B (GC)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6074959-BLK1)</b>													Extracted: 07/27/06 09:00	
GRO as Gasoline	NWTPH-Gx	ND	---	100	ug/L	1x	--	--	--	--	--	--	07/27/06 09:25	
<i>Surrogate(s): a,a,a-Trifluorotoluene</i>		<i>Recovery: 126%</i>		<i>Limits: 63-134%</i>		<i>"</i>						07/27/06 09:25		

<b>LCS (6074959-BS1)</b>													Extracted: 07/27/06 09:00	
GRO as Gasoline	NWTPH-Gx	1010	---		ug/L	1x	--	1000	101%	(66-132)	--	--	07/27/06 20:52	
<i>Surrogate(s): a,a,a-Trifluorotoluene</i>		<i>Recovery: 130%</i>		<i>Limits: 63-134%</i>		<i>"</i>						07/27/06 20:52		

<b>LCS Dup (6074959-BSD1)</b>													Extracted: 07/27/06 09:00	
GRO as Gasoline	NWTPH-Gx	981	---		ug/L	1x	--	1000	98%	(66-132)	3%	(36)	07/27/06 21:18	
<i>Surrogate(s): a,a,a-Trifluorotoluene</i>		<i>Recovery: 131%</i>		<i>Limits: 63-134%</i>		<i>"</i>						07/27/06 21:18		

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<b>Geo Engineers - Tacoma</b> 1101 Fawcett Ave, Suite 200 Tacoma, WA/USA 98402	Project Name: <b>TDO</b> Project Number: 0415-049-00 Project Manager: Kevin Broom	Report Created: 08/16/06 12:15
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**Purgeable Petroleum Hydrocarbons - Laboratory Quality Control Results**  
 TestAmerica - Nashville, TN

**QC Batch: 6075203**      **Soil Preparation Method: EPA 5035A (GC)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6075203-BLK1)</b>										Extracted: 07/27/06 12:48				
GRO as Gasoline	NWTPH-Gx	ND	---	0.100	mg/kg	0.02x	--	--	--	--	--	--	07/28/06 06:01	
<i>Surrogate(s): a,a,a-Trifluorotoluene</i>		<i>Recovery: 122%</i>		<i>Limits: 56-145%</i>		<i>"</i>							<i>07/28/06 06:01</i>	
<b>LCS (6075203-BS1)</b>										Extracted: 07/27/06 12:48				
GRO as Gasoline	NWTPH-Gx	11400	---		ug/L	0.02x	--	10000	114%	(73-127)	--	--	07/28/06 12:07	<b>MNR1</b>
<i>Surrogate(s): a,a,a-Trifluorotoluene</i>		<i>Recovery: 129%</i>		<i>Limits: 56-145%</i>		<i>"</i>							<i>07/28/06 12:07</i>	

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup - Laboratory Quality Control Results**  
 TestAmerica - Spokane, WA

**QC Batch: 6070282**      **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Blank (6070282-BLK1)</b>													<b>Extracted: 07/26/06 08:21</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	---	0.250	mg/l	1x	--	--	--	--	--	--	07/27/06 13:15		
Heavy Oil Range Hydrocarbons	"	ND	---	0.500	"	"	--	--	--	--	--	--	"		
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 55.0%</i>		<i>Limits: 50-150%</i>								<i>07/27/06 13:15</i>			
<i>p-Terphenyl-d14</i>		<i>63.2%</i>		<i>50-150%</i>								<i>"</i>			
<b>LCS (6070282-BS1)</b>													<b>Extracted: 07/26/06 08:21</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	1.62	---	0.250	mg/l	1x	--	2.50	64.8%	(50-150)	--	--	07/27/06 22:17		
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 64.5%</i>		<i>Limits: 50-150%</i>								<i>07/27/06 22:17</i>			
<i>p-Terphenyl-d14</i>		<i>69.7%</i>		<i>50-150%</i>								<i>"</i>			
<b>LCS Dup (6070282-BSD1)</b>													<b>Extracted: 07/26/06 08:21</b>		<b>BS-3</b>
Diesel Range Hydrocarbons	NWTPH-Dx	0.606	---	0.250	mg/l	1x	--	2.50	24.2%	(50-150)	91.1%	(50)	07/27/06 22:56		
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 23.3%</i>		<i>Limits: 50-150%</i>								<i>07/27/06 22:56</i>			
<i>p-Terphenyl-d14</i>		<i>23.8%</i>		<i>50-150%</i>								<i>"</i>			

**QC Batch: 6080087**      **Soil Preparation Method: EPA 3550B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Blank (6080087-BLK1)</b>													<b>Extracted: 08/07/06 14:55</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	ND	---	10.0	mg/kg wet	1x	--	--	--	--	--	--	08/12/06 21:37		
Heavy Oil Range Hydrocarbons	"	ND	---	25.0	"	"	--	--	--	--	--	--	"		
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 89.4%</i>		<i>Limits: 50-150%</i>								<i>08/12/06 21:37</i>			
<i>p-Terphenyl-d14</i>		<i>91.3%</i>		<i>50-150%</i>								<i>"</i>			
<b>LCS (6080087-BS1)</b>													<b>Extracted: 08/07/06 14:55</b>		
Diesel Range Hydrocarbons	NWTPH-Dx	72.8	---	10.0	mg/kg wet	1x	--	83.3	87.4%	(50-150)	--	--	08/12/06 22:13		
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 90.4%</i>		<i>Limits: 50-150%</i>								<i>08/12/06 22:13</i>			
<i>p-Terphenyl-d14</i>		<i>86.2%</i>		<i>50-150%</i>								<i>"</i>			
<b>Duplicate (6080087-DUP1)</b>													<b>QC Source: BPG0504-10</b>		<b>Extracted: 08/07/06 14:55</b>
Diesel Range Hydrocarbons	NWTPH-Dx	22.4	---	13.7	mg/kg dry	1x	21.5	--	--	--	4.10%	(50)	08/12/06 22:50		
Heavy Oil Range Hydrocarbons	"	170	---	34.2	"	"	206	--	--	--	19.1%	(25)	"		
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 81.2%</i>		<i>Limits: 50-150%</i>								<i>08/12/06 22:50</i>			
<i>p-Terphenyl-d14</i>		<i>88.5%</i>		<i>50-150%</i>								<i>"</i>			

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Petroleum Products by NWTPH-Dx w/Silica Gel Cleanup - Laboratory Quality Control Results**  
TestAmerica - Spokane, WA

**QC Batch: 6080087**      **Soil Preparation Method: EPA 3550B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Matrix Spike (6080087-MS1)</b>			QC Source: <b>BPG0504-19</b>				Extracted: <b>08/07/06 14:55</b>							
Diesel Range Hydrocarbons	NWTPH-Dx	90.1	---	11.5	mg/kg dry	1x	9.26	95.6	84.6%	(70-130)	--	--	08/12/06 23:27	
Surrogate(s): 2-FBP		Recovery: 96.1%		Limits: 50-150%		"							08/12/06 23:27	
p-Terphenyl-d14		92.5%		50-150%		"							"	

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Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results**  
TestAmerica - Spokane, WA

**QC Batch: 6080088**      **Soil Preparation Method: EPA 3550B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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**Blank (6080088-BLK1)**

Extracted: 08/07/06 14:51

1-Methylnaphthalene	EPA 8270 mod.	ND	---	0.0100	mg/kg wet	1x	--	--	--	--	--	--	08/10/06 15:06	
2-Methylnaphthalene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Acenaphthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Acenaphthylene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	08/14/06 09:48	
Fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	08/10/06 15:06	
Fluorene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	

<i>Surrogate(s): Nitrobenzene-d5</i>	<i>Recovery: 40.5%</i>	<i>Limits: 36.3-138%</i>	<i>"</i>	<i>08/10/06 15:06</i>
<i>2-FBP</i>	<i>82.3%</i>	<i>23.3-147%</i>	<i>"</i>	<i>"</i>
<i>p-Terphenyl-d14</i>	<i>130%</i>	<i>38.6-142%</i>	<i>"</i>	<i>"</i>

**LCS (6080088-BS1)**

Extracted: 08/07/06 14:51

Chrysene	EPA 8270 mod.	0.191	---	0.0100	mg/kg wet	1x	--	0.167	114%	(40.8-153)	--	--	08/14/06 08:23	
Fluorene	"	0.219	---	0.0100	"	"	--	"	131%	(60.6-135)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	0.213	---	0.0100	"	"	--	"	128%	(37.8-135)	--	--	"	
Naphthalene	"	0.195	---	0.0100	"	"	--	"	117%	(46.3-135)	--	--	"	

<i>Surrogate(s): Nitrobenzene-d5</i>	<i>Recovery: 67.3%</i>	<i>Limits: 36.3-138%</i>	<i>"</i>	<i>08/14/06 08:23</i>
<i>2-FBP</i>	<i>127%</i>	<i>23.3-147%</i>	<i>"</i>	<i>"</i>
<i>p-Terphenyl-d14</i>	<i>209%</i>	<i>38.6-142%</i>	<i>"</i>	<i>"</i>

**SR-2**

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	Report Created:
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	08/16/06 12:15
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results**  
 TestAmerica - Spokane, WA

**QC Batch: 6080088**      **Soil Preparation Method: EPA 3550B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Matrix Spike (6080088-MS1)</b>			QC Source: BPG0504-15					Extracted: 08/07/06 14:51							
Chrysene	EPA 8270 mod.	0.154	---	0.0112	mg/kg dry	1x	0.00447	0.186	80.4%	(38.5-135)	--	--	08/14/06 08:51		
Fluorene	"	0.157	---	0.0112	"	"	ND	"	84.4%	(47.6-135)	--	--	"		
Indeno (1,2,3-cd) pyrene	"	0.119	---	0.0112	"	"	ND	"	64.0%	(37.8-135)	--	--	"		
Naphthalene	"	0.155	---	0.0112	"	"	ND	"	83.3%	(46.3-135)	--	--	"		
<i>Surrogate(s): Nitrobenzene-d5</i>		<i>Recovery: 83.6%</i>		<i>Limits: 36.3-138%</i>									<i>08/14/06 08:51</i>		
<i>2-FBP</i>		<i>90.1%</i>		<i>23.3-147%</i>									<i>"</i>		
<i>p-Terphenyl-d14</i>		<i>127%</i>		<i>38.6-142%</i>									<i>"</i>		

<b>Matrix Spike Dup (6080088-MSD1)</b>			QC Source: BPG0504-15					Extracted: 08/07/06 14:51							
Chrysene	EPA 8270 mod.	0.153	---	0.0112	mg/kg dry	1x	0.00447	0.186	79.9%	(38.5-135)	0.651% (25)		08/14/06 09:19		
Fluorene	"	0.155	---	0.0112	"	"	ND	"	83.3%	(47.6-135)	1.28%	"	"		
Indeno (1,2,3-cd) pyrene	"	0.130	---	0.0112	"	"	ND	"	69.9%	(37.8-135)	8.84%	"	"		
Naphthalene	"	0.157	---	0.0112	"	"	ND	"	84.4%	(46.3-135)	1.28%	"	"		
<i>Surrogate(s): Nitrobenzene-d5</i>		<i>Recovery: 71.6%</i>		<i>Limits: 36.3-138%</i>									<i>08/14/06 09:19</i>		
<i>2-FBP</i>		<i>83.1%</i>		<i>23.3-147%</i>									<i>"</i>		
<i>p-Terphenyl-d14</i>		<i>136%</i>		<i>38.6-142%</i>									<i>"</i>		

**QC Batch: 6080125**      **Soil Preparation Method: EPA 3550B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Blank (6080125-BLK1)</b>								Extracted: 08/10/06 06:19							
1-Methylnaphthalene	EPA 8270 mod.	ND	---	0.0100	mg/kg wet	1x	--	--	--	--	--	--	08/14/06 10:16		
2-Methylnaphthalene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Acenaphthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Acenaphthylene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Benzo (a) anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Benzo (a) pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Benzo (b) fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Benzo (ghi) perylene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Benzo (k) fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Chrysene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Dibenzo (a,h) anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Fluorene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Indeno (1,2,3-cd) pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		
Naphthalene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"		

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results**  
 TestAmerica - Spokane, WA

**QC Batch: 6080125      Soil Preparation Method: EPA 3550B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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**Blank (6080125-BLK1)**

Extracted: 08/10/06 06:19

Phenanthrene	EPA 8270 mod.	ND	---	0.0100	mg/kg wet	1x	--	--	--	--	--	--	08/14/06 10:16	
Pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): Nitrobenzene-d5</i>		<i>Recovery: 16.6%</i>		<i>Limits: 36.3-138%</i>	"								08/14/06 10:16	<b>SR-1</b>
<i>2-FBP</i>		<i>38.1%</i>		<i>23.3-147%</i>	"								"	
<i>p-Terphenyl-d14</i>		<i>67.6%</i>		<i>38.6-142%</i>	"								"	

**LCS (6080125-BS1)**

Extracted: 08/10/06 06:19

Chrysene	EPA 8270 mod.	0.163	---	0.0100	mg/kg wet	1x	--	0.167	97.6%	(40.8-153)	--	--	08/14/06 10:44	
Fluorene	"	0.168	---	0.0100	"	"	--	"	101%	(60.6-135)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	0.116	---	0.0100	"	"	--	"	69.5%	(37.8-135)	--	--	"	
Naphthalene	"	0.111	---	0.0100	"	"	--	"	66.5%	(46.3-135)	--	--	"	
<i>Surrogate(s): Nitrobenzene-d5</i>		<i>Recovery: 78.7%</i>		<i>Limits: 36.3-138%</i>	"								08/14/06 10:44	
<i>2-FBP</i>		<i>149%</i>		<i>23.3-147%</i>	"								"	<b>SR-2</b>
<i>p-Terphenyl-d14</i>		<i>188%</i>		<i>38.6-142%</i>	"								"	<b>SR-2</b>

**LCS Dup (6080125-BSD1)**

Extracted: 08/10/06 06:19

Chrysene	EPA 8270 mod.	0.148	---	0.0100	mg/kg wet	1x	--	0.167	88.6%	(40.8-153)	9.65%	(25)	08/14/06 11:13	
Fluorene	"	0.167	---	0.0100	"	"	--	"	100%	(60.6-135)	0.597%	"	"	
Indeno (1,2,3-cd) pyrene	"	0.127	---	0.0100	"	"	--	"	76.0%	(37.8-135)	9.05%	"	"	
Naphthalene	"	0.115	---	0.0100	"	"	--	"	68.9%	(46.3-135)	3.54%	"	"	
<i>Surrogate(s): Nitrobenzene-d5</i>		<i>Recovery: 108%</i>		<i>Limits: 36.3-138%</i>	"								08/14/06 11:13	
<i>2-FBP</i>		<i>141%</i>		<i>23.3-147%</i>	"								"	
<i>p-Terphenyl-d14</i>		<i>182%</i>		<i>38.6-142%</i>	"								"	<b>SR-2</b>

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results**  
TestAmerica - Portland, OR

**QC Batch: 6071137**      **Water Preparation Method: 3520B Liq-Liq**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6071137-BLK1)</b>										Extracted: 07/26/06 17:15				
Acenaphthene	EPA 8270C	ND	---	5.00	ug/l	1x	--	--	--	--	--	--	08/07/06 04:31	
Acenaphthylene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzoic Acid	"	ND	---	50.0	"	"	--	--	--	--	--	--	"	
Benzyl alcohol	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
4-Bromophenyl phenyl ether	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Butyl benzyl phthalate	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Chloro-3-methylphenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Chloroaniline	"	ND	---	20.0	"	"	--	--	--	--	--	--	"	
Bis(2-chloroethoxy)methane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Bis(2-chloroethyl)ether	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bis(2-chloroisopropyl)ether	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
2-Chloronaphthalene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Chlorophenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Chlorophenyl phenyl ether	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Di-n-butyl phthalate	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Di-n-octyl phthalate	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Dibenzofuran	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
3,3'-Dichlorobenzidine	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,4-Dichlorophenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Diethyl phthalate	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,4-Dimethylphenol	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Dimethyl phthalate	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4,6-Dinitro-2-methylphenol	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
2,4-Dinitrophenol	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
2,4-Dinitrotoluene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,6-Dinitrotoluene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bis(2-ethylhexyl)phthalate	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	

A-01

TestAmerica - Seattle, WA

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 6071137**      **Water Preparation Method: 3520B Liq-Liq**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6071137-BLK1)</b>										Extracted: 07/26/06 17:15				
Fluorene	EPA 8270C	ND	---	5.00	ug/l	1x	--	--	--	--	--	--	08/07/06 04:31	
Hexachlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Hexachlorocyclopentadiene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Hexachloroethane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Isophorone	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Methylnaphthalene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Methylphenol	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
3-,4-Methylphenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Nitroaniline	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
3-Nitroaniline	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
4-Nitroaniline	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Nitrobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Nitrophenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Nitrophenol	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
N-Nitrosodi-n-propylamine	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
N-Nitrosodiphenylamine	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Pentachlorophenol	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Phenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,4,5-Trichlorophenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,4,6-Trichlorophenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>Recovery:</i>	<i>92.0%</i>	<i>Limits:</i>	<i>22-120%</i>	<i>"</i>							<i>08/07/06 04:31</i>	
	<i>2-Fluorophenol</i>		<i>59.7%</i>		<i>5-120%</i>	<i>"</i>							<i>"</i>	
	<i>Nitrobenzene-d5</i>		<i>92.7%</i>		<i>26-127%</i>	<i>"</i>							<i>"</i>	
	<i>Phenol-d6</i>		<i>80.0%</i>		<i>4-121%</i>	<i>"</i>							<i>"</i>	
	<i>p-Terphenyl-d14</i>		<i>87.7%</i>		<i>37-130%</i>	<i>"</i>							<i>"</i>	
	<i>2,4,6-Tribromophenol</i>		<i>79.3%</i>		<i>21-129%</i>	<i>"</i>							<i>"</i>	

TestAmerica - Seattle, WA

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Joy B Chang, Project Manager



**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
 Tacoma, WA/USA 98402

Project Name: **TDO**

Project Number: 0415-049-00  
 Project Manager: Kevin Broom

Report Created:  
 08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

QC Batch: 6071137 Water Preparation Method: 3520B Liq-Liq

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

**LCS (6071137-BS1)**

Extracted: 07/26/06 17:15

Acenaphthene	EPA 8270C	54.7	---	5.00	ug/l	1x	--	75.0	72.9%	(47-145)	--	--	08/07/06 05:14	
4-Chloro-3-methylphenol	"	105	---	5.00	"	"	--	150	70.0%	(22-147)	--	--	"	
2-Chlorophenol	"	78.7	---	5.00	"	"	--	"	52.5%	(23-134)	--	--	"	
1,4-Dichlorobenzene	"	14.9	---	5.00	"	"	--	75.0	19.9%	(8-124)	--	--	"	
2,4-Dinitrotoluene	"	62.2	---	5.00	"	"	--	"	82.9%	(39-139)	--	--	"	
4-Nitrophenol	"	134	---	25.0	"	"	--	150	89.3%	(1-132)	--	--	"	
N-Nitrosodi-n-propylamine	"	73.8	---	10.0	"	"	--	75.0	98.4%	(1-230)	--	--	"	
Pentachlorophenol	"	110	---	10.0	"	"	--	150	73.3%	(14-176)	--	--	"	
Phenol	"	71.6	---	5.00	"	"	--	"	47.7%	(5-112)	--	--	"	
Pyrene	"	58.8	---	5.00	"	"	--	75.0	78.4%	(52-122)	--	--	"	
1,2,4-Trichlorobenzene	"	19.1	---	5.00	"	"	--	"	25.5%	(11-142)	--	--	"	

<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>Recovery:</i>	<i>88.3%</i>	<i>Limits:</i>	<i>22-120%</i>	<i>"</i>							<i>08/07/06 05:14</i>	
	<i>2-Fluorophenol</i>		<i>56.9%</i>		<i>5-120%</i>	<i>"</i>							<i>"</i>	
	<i>Nitrobenzene-d5</i>		<i>91.1%</i>		<i>26-127%</i>	<i>"</i>							<i>"</i>	
	<i>Phenol-d6</i>		<i>73.3%</i>		<i>4-121%</i>	<i>"</i>							<i>"</i>	
	<i>p-Terphenyl-d14</i>		<i>83.7%</i>		<i>37-130%</i>	<i>"</i>							<i>"</i>	
	<i>2,4,6-Tribromophenol</i>		<i>82.0%</i>		<i>21-129%</i>	<i>"</i>							<i>"</i>	

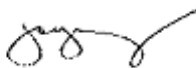
**LCS Dup (6071137-BSD1)**

Extracted: 07/26/06 17:15

Acenaphthene	EPA 8270C	59.3	---	5.00	ug/l	1x	--	75.0	79.1%	(47-145)	8.07%	(50)	08/07/06 05:57	
4-Chloro-3-methylphenol	"	125	---	5.00	"	"	--	150	83.3%	(22-147)	17.4%	"	"	
2-Chlorophenol	"	103	---	5.00	"	"	--	"	68.7%	(23-134)	26.7%	"	"	
1,4-Dichlorobenzene	"	24.7	---	5.00	"	"	--	75.0	32.9%	(8-124)	49.5%	"	"	
2,4-Dinitrotoluene	"	66.4	---	5.00	"	"	--	"	88.5%	(39-139)	6.53%	"	"	
4-Nitrophenol	"	141	---	25.0	"	"	--	150	94.0%	(1-132)	5.09%	"	"	
N-Nitrosodi-n-propylamine	"	81.4	---	10.0	"	"	--	75.0	109%	(1-230)	9.79%	"	"	
Pentachlorophenol	"	111	---	10.0	"	"	--	150	74.0%	(14-176)	0.905%	"	"	
Phenol	"	109	---	5.00	"	"	--	"	72.7%	(5-112)	41.4%	"	"	
Pyrene	"	65.4	---	5.00	"	"	--	75.0	87.2%	(52-122)	10.6%	"	"	
1,2,4-Trichlorobenzene	"	31.2	---	5.00	"	"	--	"	41.6%	(11-142)	48.1%	"	"	

<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>Recovery:</i>	<i>91.1%</i>	<i>Limits:</i>	<i>22-120%</i>	<i>"</i>							<i>08/07/06 05:57</i>	
	<i>2-Fluorophenol</i>		<i>67.3%</i>		<i>5-120%</i>	<i>"</i>							<i>"</i>	
	<i>Nitrobenzene-d5</i>		<i>94.7%</i>		<i>26-127%</i>	<i>"</i>							<i>"</i>	
	<i>Phenol-d6</i>		<i>89.3%</i>		<i>4-121%</i>	<i>"</i>							<i>"</i>	
	<i>p-Terphenyl-d14</i>		<i>87.9%</i>		<i>37-130%</i>	<i>"</i>							<i>"</i>	
	<i>2,4,6-Tribromophenol</i>		<i>87.3%</i>		<i>21-129%</i>	<i>"</i>							<i>"</i>	

TestAmerica - Seattle, WA



Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results**  
TestAmerica - Portland, OR

**QC Batch: 6080071**      **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6080071-BLK1)</b>										Extracted: 08/02/06 11:40				
Acenaphthene	EPA 8270C	ND	---	0.330	mg/kg wet	1x	--	--	--	--	--	--	08/02/06 21:55	
Acenaphthylene	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Anthracene	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Benzo (a) anthracene	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Benzo (a) pyrene	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Benzo (b) fluoranthene	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Benzo (ghi) perylene	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Benzo (k) fluoranthene	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Benzoic Acid	"	ND	---	1.00	"	"	--	--	--	--	--	--		
Benzyl alcohol	"	ND	---	1.00	"	"	--	--	--	--	--	--		
4-Bromophenyl phenyl ether	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Butyl benzyl phthalate	"	ND	---	0.330	"	"	--	--	--	--	--	--		
4-Chloro-3-methylphenol	"	ND	---	0.330	"	"	--	--	--	--	--	--		
4-Chloroaniline	"	ND	---	2.00	"	"	--	--	--	--	--	--		
Bis(2-chloroethoxy)methane	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Bis(2-chloroethyl)ether	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Bis(2-chloroisopropyl)ether	"	ND	---	0.330	"	"	--	--	--	--	--	--		
2-Chloronaphthalene	"	ND	---	0.330	"	"	--	--	--	--	--	--		
2-Chlorophenol	"	ND	---	0.330	"	"	--	--	--	--	--	--		
4-Chlorophenyl phenyl ether	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Chrysene	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Di-n-butyl phthalate	"	ND	---	1.00	"	"	--	--	--	--	--	--		
Di-n-octyl phthalate	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Dibenzo (a,h) anthracene	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Dibenzofuran	"	ND	---	0.330	"	"	--	--	--	--	--	--		
1,2-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--		
1,3-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--		
1,4-Dichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--		
3,3'-Dichlorobenzidine	"	ND	---	1.00	"	"	--	--	--	--	--	--		
2,4-Dichlorophenol	"	ND	---	0.330	"	"	--	--	--	--	--	--		
Diethyl phthalate	"	ND	---	0.330	"	"	--	--	--	--	--	--		
2,4-Dimethylphenol	"	ND	---	1.00	"	"	--	--	--	--	--	--		
Dimethyl phthalate	"	ND	---	0.330	"	"	--	--	--	--	--	--		
4,6-Dinitro-2-methylphenol	"	ND	---	1.00	"	"	--	--	--	--	--	--		
2,4-Dinitrophenol	"	ND	---	2.00	"	"	--	--	--	--	--	--		
2,4-Dinitrotoluene	"	ND	---	0.500	"	"	--	--	--	--	--	--		
2,6-Dinitrotoluene	"	ND	---	0.500	"	"	--	--	--	--	--	--		
Bis(2-ethylhexyl)phthalate	"	ND	---	2.00	"	"	--	--	--	--	--	--		
Fluoranthene	"	ND	---	0.330	"	"	--	--	--	--	--	--		

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 6080071**      **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6080071-BLK1)</b>													<b>Extracted: 08/02/06 11:40</b>	
Fluorene	EPA 8270C	ND	---	0.330	mg/kg wet	1x	--	--	--	--	--	--	08/02/06 21:55	
Hexachlorobenzene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Hexachlorocyclopentadiene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Hexachloroethane	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Isophorone	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2-Methylnaphthalene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2-Methylphenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
3-,4-Methylphenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2-Nitroaniline	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
3-Nitroaniline	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
4-Nitroaniline	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Nitrobenzene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2-Nitrophenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
4-Nitrophenol	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
N-Nitrosodi-n-propylamine	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
N-Nitrosodiphenylamine	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Pentachlorophenol	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Phenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2,4,5-Trichlorophenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
2,4,6-Trichlorophenol	"	ND	---	0.330	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>Recovery:</i>	<i>71.6%</i>	<i>Limits:</i>	<i>30-115%</i>	<i>"</i>							<i>08/02/06 21:55</i>	
	<i>2-Fluorophenol</i>		<i>67.0%</i>		<i>25-121%</i>	<i>"</i>							<i>"</i>	
	<i>Nitrobenzene-d5</i>		<i>73.6%</i>		<i>23-120%</i>	<i>"</i>							<i>"</i>	
	<i>Phenol-d6</i>		<i>87.6%</i>		<i>24-113%</i>	<i>"</i>							<i>"</i>	
	<i>p-Terphenyl-d14</i>		<i>69.2%</i>		<i>18-137%</i>	<i>"</i>							<i>"</i>	
	<i>2,4,6-Tribromophenol</i>		<i>94.0%</i>		<i>19-122%</i>	<i>"</i>							<i>"</i>	

TestAmerica - Seattle, WA

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Joy B Chang, Project Manager



<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	Report Created:
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	08/16/06 12:15
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	

**Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 6080071**      **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

**LCS (6080071-BS1)**

Extracted: 08/02/06 11:40

Acenaphthene	EPA 8270C	1.24	---	0.326	mg/kg wet	1x	--	1.64	75.6%	(54-105)	--	--	08/02/06 22:38	
4-Chloro-3-methylphenol	"	1.72	---	0.326	"	"	--	"	105%	(49-111)	--	--	"	
2-Chlorophenol	"	1.56	---	0.326	"	"	--	"	95.1%	(26-108)	--	--	"	
1,4-Dichlorobenzene	"	1.19	---	0.987	"	"	--	"	72.6%	(14-107)	--	--	"	
2,4-Dinitrotoluene	"	1.35	---	0.493	"	"	--	"	82.3%	(42-114)	--	--	"	
4-Nitrophenol	"	2.15	---	0.987	"	"	--	"	131%	(36-119)	--	--	"	Q-27
N-Nitrosodi-n-propylamine	"	1.26	---	0.326	"	"	--	"	76.8%	(36-113)	--	--	"	
Pentachlorophenol	"	1.49	---	0.987	"	"	--	"	90.9%	(30-102)	--	--	"	
Phenol	"	1.34	---	0.326	"	"	--	"	81.7%	(35-104)	--	--	"	
Pyrene	"	1.32	---	0.326	"	"	--	"	80.5%	(54-125)	--	--	"	
1,2,4-Trichlorobenzene	"	1.25	---	0.987	"	"	--	"	76.2%	(28-105)	--	--	"	

<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>Recovery:</i>	<i>70.0%</i>	<i>Limits:</i>	<i>30-115%</i>	<i>"</i>	<i>08/02/06 22:38</i>
	<i>2-Fluorophenol</i>		<i>70.0%</i>		<i>25-121%</i>	<i>"</i>	<i>"</i>
	<i>Nitrobenzene-d5</i>		<i>69.2%</i>		<i>23-120%</i>	<i>"</i>	<i>"</i>
	<i>Phenol-d6</i>		<i>93.5%</i>		<i>24-113%</i>	<i>"</i>	<i>"</i>
	<i>p-Terphenyl-d14</i>		<i>77.3%</i>		<i>18-137%</i>	<i>"</i>	<i>"</i>
	<i>2,4,6-Tribromophenol</i>		<i>105%</i>		<i>19-122%</i>	<i>"</i>	<i>"</i>

**Matrix Spike (6080071-MS1)**

QC Source: PPH0066-01

Extracted: 08/02/06 11:40

R-05

Acenaphthene	EPA 8270C	1.62	---	4.32	mg/kg dry	10x	ND	2.18	74.3%	(44-115)	--	--	08/05/06 10:34	
4-Chloro-3-methylphenol	"	1.97	---	4.32	"	"	ND	"	90.4%	(39-121)	--	--	"	
2-Chlorophenol	"	2.45	---	4.32	"	"	ND	"	112%	(16-118)	--	--	"	
1,4-Dichlorobenzene	"	1.35	---	13.1	"	"	ND	"	61.9%	(4-117)	--	--	"	
2,4-Dinitrotoluene	"	1.24	---	6.54	"	"	ND	"	56.9%	(32-124)	--	--	"	
4-Nitrophenol	"	1.26	---	13.1	"	"	ND	"	57.8%	(26-129)	--	--	"	
N-Nitrosodi-n-propylamine	"	ND	---	4.32	"	"	ND	"	NR	(26-123)	--	--	"	Q-08
Pentachlorophenol	"	1.33	---	13.1	"	"	ND	"	61.0%	(20-112)	--	--	"	
Phenol	"	ND	---	4.32	"	"	ND	"	NR	(25-114)	--	--	"	Q-08
Pyrene	"	1.52	---	4.32	"	"	ND	"	69.7%	(44-135)	--	--	"	
1,2,4-Trichlorobenzene	"	1.44	---	13.1	"	"	ND	"	66.1%	(18-115)	--	--	"	

<i>Surrogate(s):</i>	<i>2-Fluorobiphenyl</i>	<i>Recovery:</i>	<i>87.8%</i>	<i>Limits:</i>	<i>30-115%</i>	<i>"</i>	<i>08/05/06 10:34</i>
	<i>2-Fluorophenol</i>		<i>110%</i>		<i>25-121%</i>	<i>"</i>	<i>"</i>
	<i>Nitrobenzene-d5</i>		<i>NR</i>		<i>23-120%</i>	<i>"</i>	<i>"</i>
	<i>Phenol-d6</i>		<i>70.9%</i>		<i>24-113%</i>	<i>"</i>	<i>"</i>
	<i>p-Terphenyl-d14</i>		<i>87.2%</i>		<i>18-137%</i>	<i>"</i>	<i>"</i>
	<i>2,4,6-Tribromophenol</i>		<i>78.3%</i>		<i>19-122%</i>	<i>"</i>	<i>"</i>

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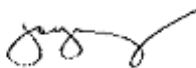
<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 6080071**      **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Matrix Spike Dup (6080071-MSD1)</b>				QC Source: PPH0066-01				Extracted: 08/02/06 11:40					R-05	
Acenaphthene	EPA 8270C	1.58	---	4.32	mg/kg dry	10x	ND	2.18	72.5%	(44-115)	2.50% (60)		08/05/06 11:17	
4-Chloro-3-methylphenol	"	1.96	---	4.32	"	"	ND	"	89.9%	(39-121)	0.509%	"	"	
2-Chlorophenol	"	2.01	---	4.32	"	"	ND	"	92.2%	(16-118)	19.7%	"	"	
1,4-Dichlorobenzene	"	1.23	---	13.1	"	"	ND	"	56.4%	(4-117)	9.30%	"	"	
2,4-Dinitrotoluene	"	1.15	---	6.54	"	"	ND	"	52.8%	(32-124)	7.53%	"	"	
4-Nitrophenol	"	1.28	---	13.1	"	"	ND	"	58.7%	(26-129)	1.57%	"	"	
N-Nitrosodi-n-propylamine	"	ND	---	4.32	"	"	ND	"	NR	(26-123)		"	"	Q-08
Pentachlorophenol	"	1.12	---	13.1	"	"	ND	"	51.4%	(20-112)	17.1%	"	"	
Phenol	"	ND	---	4.32	"	"	ND	"	NR	(25-114)		"	"	Q-08
Pyrene	"	1.44	---	4.32	"	"	ND	"	66.1%	(44-135)	5.41%	"	"	
1,2,4-Trichlorobenzene	"	1.38	---	13.1	"	"	ND	"	63.3%	(18-115)	4.26%	"	"	
<i>Surrogate(s):</i>			<i>Recovery:</i>				<i>Limits:</i>							
2-Fluorobiphenyl			82.9%				30-115%						08/05/06 11:17	
2-Fluorophenol			98.9%				25-121%						"	
Nitrobenzene-d5			NR				23-120%						"	S-02
Phenol-d6			73.7%				24-113%						"	
p-Terphenyl-d14			76.8%				18-137%						"	
2,4,6-Tribromophenol			80.1%				19-122%						"	

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Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 6071189**      **Other dry Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Duplicate (6071189-DUP1)</b>			<b>QC Source: BPG0504-15</b>					<b>Extracted: 07/27/06 12:03</b>							
% Solids	NCA SOP	88.8	---	0.00	% by Weight	1x	87.9	--	--	--	1.02%	(20)	07/27/06 12:03		

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/16/06 12:15

**Notes and Definitions**

Report Specific Notes:

- A-01 - Suspected lab contaminant.
- B-18 - Analyte was detected in the blank at greater than one-half of the MRL, but samples are ND.
- BS-3 - Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was below the laboratory control limits. A low bias to sample results is indicated.
- DP-1 - Sample RPD exceeded the laboratory control limit.
- HT-1 - Sample analysis performed past method-specified holding time.
- I - Internal Standard recovery was outside of method limits. Matrix interference was confirmed by reanalysis.
- MNR1 - There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike.
- MS-2 - The Matrix Spike and/or Matrix Spike Duplicate were below the acceptance limits due to sample matrix interference. See Laboratory Control Sample.
- Q-08 - Unable to quantify spike recovery due to matrix interference and/or dilution necessary for analysis.
- Q-14 - Visual examination indicates the RPD and/or matrix spike recovery is outside the control limit due to a non-homogeneous sample matrix.
- Q-27 - Analyte recovery outside of specified criteria. Individual analyte criteria exceedences allowed for multi-component analyses without disqualification of data per USACE EM200-1-3.
- Q-40 - This analyte had a low bias in the associated calibration verification standard.
- Q-41 - This analyte had a high bias in the associated calibration verification standard.
- R-05 - Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.
- S-02 - The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present.
- SR-1 - Surrogate recovery was below the acceptance limits.
- SR-2 - Surrogate recovery was above the acceptance limits.

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL\* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. \*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

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**Geo Engineers - Tacoma**

1101 Fawcett Ave, Suite 200  
Tacoma, WA/USA 98402

Project Name: **TDO**

Project Number: 0415-049-00

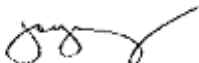
Project Manager: Kevin Broom

Report Created:

08/16/06 12:15

- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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August 24, 2006

Kevin Broom  
Geo Engineers - Tacoma  
1101 Fawcett Ave, Suite 200  
Tacoma, WA/USA 98402

RE: TDO

Enclosed are the results of analyses for samples received by the laboratory on 07/21/06 15:15.  
The following list is a summary of the Work Orders contained in this report, generated on 08/24/06  
16:01.

If you have any questions concerning this report, please feel free to contact me.

---

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
BPG0504	TDO	0415-049-00

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<b>Geo Engineers - Tacoma</b> 1101 Fawcett Ave, Suite 200 Tacoma, WA/USA 98402	Project Name:	<b>TDO</b>	Report Created:
	Project Number:	0415-049-00	08/24/06 16:01
	Project Manager:	Kevin Broom	

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PP01-4-10	BPG0504-12	Soil	07/19/06 14:30	07/21/06 15:15

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Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/24/06 16:01

**Total Metals by EPA 6000/7000 Series Methods**  
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>BPG0504-12 (PP01-4-10)</b>										
		<b>Soil</b>					<b>Sampled: 07/19/06 14:30</b>			
Arsenic	EPA 6020	<b>3.77</b>	----	0.657	mg/kg dry	1x	6H22044	08/22/06 14:04	08/23/06 16:45	
Cadmium	"	ND	----	0.657	"	"	"	"	"	
Chromium	"	<b>33.8</b>	----	0.657	"	"	"	"	"	
Lead	"	<b>2.20</b>	----	0.657	"	"	"	"	"	
Mercury	EPA 7471A	ND	----	0.541	"	"	6H23055	08/23/06 18:11	08/24/06 12:10	<b>HT-2</b>

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/24/06 16:01

**Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6H22044      Soil Preparation Method: EPA 3050B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

**Blank (6H22044-BLK1)**

Extracted: 08/22/06 14:04

Cadmium	EPA 6020	ND	---	0.515	mg/kg wet	1x	--	--	--	--	--	--	08/23/06 15:48	
Arsenic	"	ND	---	0.515	"	"	--	--	--	--	--	--	"	
Chromium	"	ND	---	0.515	"	"	--	--	--	--	--	--	"	
Lead	"	ND	---	0.515	"	"	--	--	--	--	--	--	"	

**LCS (6H22044-BS1)**

Extracted: 08/22/06 14:04

Arsenic	EPA 6020	41.0	---	0.510	mg/kg wet	1x	--	40.8	100%	(80-120)	--	--	08/23/06 15:53	
Lead	"	40.8	---	0.510	"	"	--	"	100%	"	--	--	"	
Cadmium	"	41.0	---	0.510	"	"	--	"	100%	"	--	--	"	
Chromium	"	42.9	---	0.510	"	"	--	"	105%	"	--	--	"	

**Duplicate (6H22044-DUP1)**

QC Source: BPG0518-01RE1

Extracted: 08/22/06 14:04

Arsenic	EPA 6020	2.80	---	0.525	mg/kg dry	1x	2.54	--	--	--	9.74% (30)	--	08/23/06 16:11	
Lead	"	21.2	---	0.525	"	"	20.4	--	--	--	3.85%	"	"	
Cadmium	"	ND	---	0.525	"	"	ND	--	--	--	13.7%	"	"	
Chromium	"	25.4	---	0.525	"	"	27.6	--	--	--	8.30%	"	"	

**Matrix Spike (6H22044-MS1)**

QC Source: BPG0518-01RE1

Extracted: 08/22/06 14:04

Chromium	EPA 6020	72.6	---	0.536	mg/kg dry	1x	27.6	42.9	105%	(30-163)	--	--	08/23/06 16:05	
Cadmium	"	42.6	---	0.536	"	"	0.238	"	98.7%	(80-120)	--	--	"	
Lead	"	64.2	---	0.536	"	"	20.4	"	102%	(29-166)	--	--	"	
Arsenic	"	43.9	---	0.536	"	"	2.54	"	96.4%	(57-125)	--	--	"	

**Post Spike (6H22044-PS1)**

QC Source: BPG0518-01RE1

Extracted: 08/22/06 14:04

Arsenic	EPA 6020	0.106	---		ug/ml	1x	0.00484	0.100	101%	(75-125)	--	--	08/23/06 15:59	
Lead	"	0.131	---		"	"	0.0388	0.0995	92.7%	"	--	--	"	
Cadmium	"	0.0961	---		"	"	0.000454	0.100	95.6%	"	--	--	"	
Chromium	"	0.150	---		"	"	0.0526	"	97.4%	"	--	--	"	

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Joy B Chang, Project Manager

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<b>Geo Engineers - Tacoma</b>	Project Name: <b>TDO</b>	
1101 Fawcett Ave, Suite 200	Project Number: 0415-049-00	Report Created:
Tacoma, WA/USA 98402	Project Manager: Kevin Broom	08/24/06 16:01

**Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results**  
 TestAmerica - Seattle, WA

**QC Batch: 6H23055      Soil Preparation Method: EPA 7471A**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (6H23055-BLK1)</b>								Extracted: 08/23/06 18:11						
Mercury	EPA 7471A	ND	---	0.395	mg/kg wet	1x	--	--	--	--	--	--	08/24/06 11:56	
<b>LCS (6H23055-BS1)</b>								Extracted: 08/23/06 18:11						
Mercury	EPA 7471A	0.682	---	0.405	mg/kg wet	1x	--	0.676	101%	(80-120)	--	--	08/24/06 11:58	
<b>LCS Dup (6H23055-BSD1)</b>								Extracted: 08/23/06 18:11						
Mercury	EPA 7471A	0.692	---	0.405	mg/kg wet	1x	--	0.676	102%	(80-120)	1.46% (20)		08/24/06 12:00	
<b>Duplicate (6H23055-DUP1)</b>								QC Source: BPH0410-09		Extracted: 08/23/06 18:11				
Mercury	EPA 7471A	ND	---	0.423	mg/kg dry	1x	ND	--	--	--	NR (30)		08/24/06 13:02	
<b>Matrix Spike (6H23055-MS1)</b>								QC Source: BPH0410-09		Extracted: 08/23/06 18:11				
Mercury	EPA 7471A	0.800	---	0.464	mg/kg dry	1x	ND	0.773	103%	(70-130)	--	--	08/24/06 12:03	

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<b>Geo Engineers - Tacoma</b> 1101 Fawcett Ave, Suite 200 Tacoma, WA/USA 98402	Project Name: <b>TDO</b>	
	Project Number: 0415-049-00	Report Created:
	Project Manager: Kevin Broom	08/24/06 16:01

**Notes and Definitions**

Report Specific Notes:

HT-2 - Sample analysis performed past method-specified holding time per client's approval.

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL\* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. \*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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## ANALYTICAL REPORT

Job Number: 580-3591-1

Job Description: TDO

For:  
GeoEngineers Inc  
1101 Fawcett, Suite 200  
Tacoma, WA 98402

Attention: Kevin M Broom



---

Heather Curbow  
Project Mgmt. Assistant  
hcurbow@stl-inc.com  
09/29/2006

Project Manager: Heather Curbow

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**Case Narrative for job: 580-J3591-1**

Client: GeoEngineers Inc

Date: 09/29/2006

**8270 SEMIVOLATILE ORGANICS**

Recovery of Benzo[a]pyrene in the LCSD exceeded QC limits in analytical batch 580-11031, the associated LCS was within QC limits. No further action was taken.

**8260B VOLATILE ORGANICS**

Choroethane and Bromomethane response suppressed by increased methanol needed to meet requested RL. 1,1,1,2-tetrachloroethane recovery low in LCSD but LCS recovery and RPD both within established limits. No further action taken.

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>580-3591-2</b>	<b>PP13-060914-020</b>				
Naphthalene		0.75 J	4.7	ug/Kg	8270C
2-Methylnaphthalene		0.65 J	4.7	ug/Kg	8270C
1-Methylnaphthalene		0.82 J	4.7	ug/Kg	8270C
Acenaphthylene		1.3 J	4.7	ug/Kg	8270C
Fluorene		1.1 J	4.7	ug/Kg	8270C
Phenanthrene		6.0 B	4.7	ug/Kg	8270C
Anthracene		1.0 J	4.7	ug/Kg	8270C
Fluoranthene		4.1 J B	4.7	ug/Kg	8270C
Pyrene		5.2 B	4.7	ug/Kg	8270C
Benzo[fluoranthene		5.0 J B	9.5	ug/Kg	8270C
Benzo[a]pyrene		2.3 J B	4.7	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		1.9 J B	4.7	ug/Kg	8270C
Benzo[g,h,i]perylene		2.3 J B	4.7	ug/Kg	8270C
Arsenic		3.7	2.1	mg/Kg	6010B
Lead		8.3	0.64	mg/Kg	6010B
Chromium		18	0.43	mg/Kg	6010B
<b>580-3591-4</b>	<b>PP13-060914-060</b>				
Trichlorofluoromethane		15 J	83	ug/Kg	8260B
Naphthalene		1.4 J	5.4	ug/Kg	8270C
2-Methylnaphthalene		1.3 J	5.4	ug/Kg	8270C
1-Methylnaphthalene		1.3 J	5.4	ug/Kg	8270C
Acenaphthylene		1.6 J	5.4	ug/Kg	8270C
Acenaphthene		1.4 J	5.4	ug/Kg	8270C
Fluorene		1.5 J	5.4	ug/Kg	8270C
Phenanthrene		1.6 J B	5.4	ug/Kg	8270C
Anthracene		1.4 J	5.4	ug/Kg	8270C
Fluoranthene		2.7 J B	5.4	ug/Kg	8270C
Pyrene		3.2 J B	5.4	ug/Kg	8270C
Benzo[a]anthracene		3.6 J B	5.4	ug/Kg	8270C
Chrysene		3.5 J B	5.4	ug/Kg	8270C
Benzo[fluoranthene		5.8 J B	11	ug/Kg	8270C
Benzo[a]pyrene		3.1 J B	5.4	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		2.2 J B	5.4	ug/Kg	8270C
Benzo[g,h,i]perylene		2.5 J B	5.4	ug/Kg	8270C
Arsenic		3.0	2.5	mg/Kg	6010B
Lead		2.0	0.75	mg/Kg	6010B
Chromium		16	0.50	mg/Kg	6010B

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
<b>580-3591-6</b>	<b>PP13-060914-W</b>					
Vinyl chloride		0.74	J	1.0	ug/L	8260B
Benzene		0.34	J	1.0	ug/L	8260B
Toluene		0.45	J	1.0	ug/L	8260B
Ethylbenzene		0.094	J	1.0	ug/L	8260B
m-Xylene & p-Xylene		0.41	J	2.0	ug/L	8260B
o-Xylene		0.20	J	1.0	ug/L	8260B
1,2,4-Trimethylbenzene		0.20	J	1.0	ug/L	8260B
Naphthalene		0.29	J	1.0	ug/L	8260B
Naphthalene		0.12	B	0.10	ug/L	8270C
2-Methylnaphthalene		0.063	J	0.13	ug/L	8270C
Acenaphthene		0.011	J B	0.10	ug/L	8270C
Phenanthrene		0.017	J B	0.10	ug/L	8270C
Fluoranthene		0.010	J	0.10	ug/L	8270C
Naphthalene		0.12	J	2.1	ug/L	8270C
2-Methylnaphthalene		0.060	J	1.0	ug/L	8270C
Diethyl phthalate		0.17	J	2.1	ug/L	8270C
Di-n-butyl phthalate		0.40	J B	2.1	ug/L	8270C
Butyl benzyl phthalate		1.3	J B	3.1	ug/L	8270C
Bis(2-ethylhexyl) phthalate		1.1	J B	15	ug/L	8270C
1-Methylnaphthalene		0.061	J	0.31	ug/L	8270C
Gasoline		0.048	J B	0.050	mg/L	NWTPH-Gx
<b>Total Recoverable</b>						
Chromium		0.0055		0.0020	mg/L	6020

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
<b>580-3591-7</b>	<b>PP13-060914-WDUP</b>					
Vinyl chloride		0.70	J	1.0	ug/L	8260B
Benzene		0.34	J	1.0	ug/L	8260B
Toluene		0.14	J	1.0	ug/L	8260B
m-Xylene & p-Xylene		0.18	J	2.0	ug/L	8260B
o-Xylene		0.082	J	1.0	ug/L	8260B
1,2,4-Trimethylbenzene		0.10	J	1.0	ug/L	8260B
Naphthalene		0.11	J	1.0	ug/L	8260B
Naphthalene		0.11	B	0.11	ug/L	8270C
2-Methylnaphthalene		0.063	J	0.14	ug/L	8270C
Acenaphthene		0.014	J B	0.11	ug/L	8270C
Phenanthrene		0.021	J B	0.11	ug/L	8270C
Fluoranthene		0.016	J	0.11	ug/L	8270C
Pyrene		0.022	J	0.11	ug/L	8270C
Benzo[a]anthracene		0.0099	J B	0.11	ug/L	8270C
Naphthalene		0.10	J	2.2	ug/L	8270C
Di-n-butyl phthalate		0.35	J B	2.2	ug/L	8270C
Butyl benzyl phthalate		1.2	J B	3.2	ug/L	8270C
Bis(2-ethylhexyl) phthalate		1.1	J B	16	ug/L	8270C
Gasoline		0.029	J B	0.050	mg/L	NWTPH-Gx
<b>Total Recoverable</b>						
Chromium		0.0051		0.0020	mg/L	6020
<b>580-3591-8</b>	<b>PP14-060914-040</b>					
Trichloroethene		12	J	32	ug/Kg	8260B
Naphthalene		0.96	J	5.6	ug/Kg	8270C
2-Methylnaphthalene		0.68	J	5.6	ug/Kg	8270C
Phenanthrene		2.5	J B	5.6	ug/Kg	8270C
Anthracene		0.57	J	5.6	ug/Kg	8270C
Benzyl alcohol		100	J	110	ug/Kg	8270C
Fluoranthene		5.2	J B	5.6	ug/Kg	8270C
Pyrene		4.7	J B	5.6	ug/Kg	8270C
Chrysene		3.1	J B	5.6	ug/Kg	8270C
Benzofluoranthene		6.5	J B	11	ug/Kg	8270C
Benzo[a]pyrene		2.5	J B	5.6	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		2.1	J B	5.6	ug/Kg	8270C
Benzo[g,h,i]perylene		2.6	J B	5.6	ug/Kg	8270C
Butyl benzyl phthalate		5100		220	ug/Kg	8270C
Bis(2-ethylhexyl) phthalate		2600		1700	ug/Kg	8270C
Di-n-octyl phthalate		160	J	220	ug/Kg	8270C
Arsenic		6.4		2.2	mg/Kg	6010B
Lead		4.6		0.66	mg/Kg	6010B
Chromium		19		0.44	mg/Kg	6010B
Mercury		0.025	B	0.017	mg/Kg	7471A

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## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
<b>580-3591-9</b>	<b>PP14-060914-060</b>					
Chloromethane		16	J	83	ug/Kg	8260B
Trichlorofluoromethane		31	J	83	ug/Kg	8260B
Methylene Chloride		21	J	83	ug/Kg	8260B
Trichloroethene		7.7	J	33	ug/Kg	8260B
Benzo[a]anthracene		1.1	J B	5.8	ug/Kg	8270C
Chrysene		0.74	J B	5.8	ug/Kg	8270C
Butyl benzyl phthalate		97	J	120	ug/Kg	8270C
Arsenic		3.0		2.4	mg/Kg	6010B
Lead		1.8		0.72	mg/Kg	6010B
Chromium		16		0.48	mg/Kg	6010B
<b>580-3591-11</b>	<b>PP14-060914-W</b>					
Vinyl chloride		0.67	J	1.0	ug/L	8260B
Benzene		0.33	J	1.0	ug/L	8260B
Toluene		0.34	J	1.0	ug/L	8260B
m-Xylene & p-Xylene		0.28	J	2.0	ug/L	8260B
o-Xylene		0.14	J	1.0	ug/L	8260B
1,2,4-Trimethylbenzene		0.14	J	1.0	ug/L	8260B
Naphthalene		0.19	J	1.0	ug/L	8260B
Naphthalene		0.12	B	0.10	ug/L	8270C
2-Methylnaphthalene		0.068	J	0.13	ug/L	8270C
Acenaphthene		0.014	J B	0.10	ug/L	8270C
Phenanthrene		0.017	J B	0.10	ug/L	8270C
Naphthalene		0.11	J	2.0	ug/L	8270C
Diethyl phthalate		0.095	J	2.0	ug/L	8270C
Di-n-butyl phthalate		0.46	J B	2.0	ug/L	8270C
Butyl benzyl phthalate		1.2	J B	3.1	ug/L	8270C
Bis(2-ethylhexyl) phthalate		1.0	J B	15	ug/L	8270C
Gasoline		0.024	J B	0.050	mg/L	NWTPH-Gx
<b>Total Recoverable</b>						
Lead		0.000050	J B	0.0020	mg/L	6020
Chromium		0.0060		0.0020	mg/L	6020

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>580-3591-13</b>	<b>PP15-060914-020</b>				
Chloroform		140	82	ug/Kg	8260B
Carbon tetrachloride		66	33	ug/Kg	8260B
Trichloroethene		2300	33	ug/Kg	8260B
Tetrachloroethene		54	51	ug/Kg	8260B
Naphthalene		13 J	82	ug/Kg	8260B
Naphthalene		12	5.1	ug/Kg	8270C
2-Methylnaphthalene		11	5.1	ug/Kg	8270C
1-Methylnaphthalene		11	5.1	ug/Kg	8270C
Acenaphthylene		2.7 J	5.1	ug/Kg	8270C
Acenaphthene		8.9	5.1	ug/Kg	8270C
Fluorene		3.0 J	5.1	ug/Kg	8270C
Phenanthrene		140 B	5.1	ug/Kg	8270C
Anthracene		21	5.1	ug/Kg	8270C
Fluoranthene		620 B	5.1	ug/Kg	8270C
Pyrene		550 B	5.1	ug/Kg	8270C
Benzo[a]anthracene		410 B	5.1	ug/Kg	8270C
Chrysene		430 B	5.1	ug/Kg	8270C
Benzo[fluoranthene]		1000 B	10	ug/Kg	8270C
Benzo[a]pyrene		480 B	5.1	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		420 B	5.1	ug/Kg	8270C
Dibenz(a,h)anthracene		110	5.1	ug/Kg	8270C
Benzo[g,h,i]perylene		480 B	5.1	ug/Kg	8270C
Carbazole		41 J	150	ug/Kg	8270C
Motor Oil (>C24-C36)		24 J	52	mg/Kg	NWTPH-Dx
#2 Diesel (C10-C24)		7.9 J	26	mg/Kg	NWTPH-Dx
Arsenic		9.4	2.2	mg/Kg	6010B
Lead		86	0.65	mg/Kg	6010B
Chromium		18	0.44	mg/Kg	6010B
Mercury		0.10 B	0.020	mg/Kg	7471A

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
<b>580-3591-15</b>	<b>PP15-060914-060</b>					
Chloromethane		35	J	73	ug/Kg	8260B
Trichlorofluoromethane		19	J	73	ug/Kg	8260B
Naphthalene		0.87	J	5.7	ug/Kg	8270C
Phenanthrene		3.4	J B	5.7	ug/Kg	8270C
Anthracene		4.1	J	5.7	ug/Kg	8270C
Fluoranthene		7.6	B	5.7	ug/Kg	8270C
Pyrene		7.5	B	5.7	ug/Kg	8270C
Benzo[a]anthracene		7.9	B	5.7	ug/Kg	8270C
Chrysene		9.8	B	5.7	ug/Kg	8270C
Benzofluoranthene		14	B	11	ug/Kg	8270C
Benzo[a]pyrene		6.0	B	5.7	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		8.0	B	5.7	ug/Kg	8270C
Dibenz(a,h)anthracene		8.6		5.7	ug/Kg	8270C
Benzo[g,h,i]perylene		6.9	B	5.7	ug/Kg	8270C
Motor Oil (>C24-C36)		54	J	55	mg/Kg	NWTPH-Dx
#2 Diesel (C10-C24)		15	J	28	mg/Kg	NWTPH-Dx
Arsenic		3.1		2.8	mg/Kg	6010B
Lead		1.4		0.83	mg/Kg	6010B
Chromium		14		0.55	mg/Kg	6010B
Mercury		0.022	J B	0.022	mg/Kg	7471A
<b>580-3591-17</b>	<b>PP15-060914-W</b>					
Vinyl chloride		2.6		1.0	ug/L	8260B
cis-1,2-Dichloroethene		0.12	J	1.0	ug/L	8260B
Benzene		0.41	J	1.0	ug/L	8260B
Toluene		0.25	J	1.0	ug/L	8260B
m-Xylene & p-Xylene		0.23	J	2.0	ug/L	8260B
o-Xylene		0.11	J	1.0	ug/L	8260B
1,2,4-Trimethylbenzene		0.14	J	1.0	ug/L	8260B
Naphthalene		0.16	J	1.0	ug/L	8260B
Naphthalene		0.12	B	0.10	ug/L	8270C
2-Methylnaphthalene		0.065	J	0.13	ug/L	8270C
Acenaphthene		0.0035	J B	0.10	ug/L	8270C
Phenanthrene		0.016	J B	0.10	ug/L	8270C
Naphthalene		0.11	J	2.0	ug/L	8270C
Di-n-butyl phthalate		0.33	J B	2.0	ug/L	8270C
Butyl benzyl phthalate		1.0	J B	3.0	ug/L	8270C
Bis(2-ethylhexyl) phthalate		0.95	J B	15	ug/L	8270C
Gasoline		0.015	J B	0.050	mg/L	NWTPH-Gx
<b>Total Recoverable</b>						
Chromium		0.0052		0.0020	mg/L	6020



## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>580-3591-19</b>	<b>PP16-060914-020</b>				
Trichloroethene		46	43	ug/Kg	8260B
Naphthalene		6.5	5.1	ug/Kg	8270C
2-Methylnaphthalene		2.5	5.1	ug/Kg	8270C
1-Methylnaphthalene		2.2	5.1	ug/Kg	8270C
Acenaphthylene		0.69	5.1	ug/Kg	8270C
Acenaphthene		2.6	5.1	ug/Kg	8270C
Fluorene		2.1	5.1	ug/Kg	8270C
Phenanthrene		140	5.1	ug/Kg	8270C
Anthracene		19	5.1	ug/Kg	8270C
Fluoranthene		980	5.1	ug/Kg	8270C
Pyrene		810	5.1	ug/Kg	8270C
Benzo[a]anthracene		790	5.1	ug/Kg	8270C
Chrysene		870	5.1	ug/Kg	8270C
Benzo[fluoranthene		1900	10	ug/Kg	8270C
Benzo[a]pyrene		880	5.1	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		860	5.1	ug/Kg	8270C
Dibenz(a,h)anthracene		270	5.1	ug/Kg	8270C
Benzo[g,h,i]perylene		890	5.1	ug/Kg	8270C
3,3'-Dichlorobenzidine		95	200	ug/Kg	8270C
Arsenic		16	2.5	mg/Kg	6010B
Lead		350	0.74	mg/Kg	6010B
Chromium		18	0.50	mg/Kg	6010B
<b>580-3591-21</b>	<b>PP16-060914-060</b>				
Trichloroethene		55	32	ug/Kg	8260B
Fluoranthene		1.4	5.5	ug/Kg	8270C
Pyrene		1.3	5.5	ug/Kg	8270C
Benzo[a]anthracene		2.1	5.5	ug/Kg	8270C
Chrysene		1.7	5.5	ug/Kg	8270C
Benzo[fluoranthene		2.9	11	ug/Kg	8270C
Benzo[a]pyrene		1.3	5.5	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		1.6	5.5	ug/Kg	8270C
Arsenic		3.0	2.6	mg/Kg	6010B
Lead		2.2	0.79	mg/Kg	6010B
Chromium		15	0.53	mg/Kg	6010B

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>580-3591-23</b>	<b>PP16-060914-W</b>				
Vinyl chloride		6.0	1.0	ug/L	8260B
Chloroethane		0.18 J	5.0	ug/L	8260B
1,1-Dichloroethene		0.11 J	1.0	ug/L	8260B
trans-1,2-Dichloroethene		0.12 J	1.0	ug/L	8260B
cis-1,2-Dichloroethene		5.0	1.0	ug/L	8260B
Benzene		1.1	1.0	ug/L	8260B
Trichloroethene		2.4	1.0	ug/L	8260B
Toluene		0.18 J	1.0	ug/L	8260B
Naphthalene		0.083 J	1.0	ug/L	8260B
Naphthalene		0.10 J B	0.10	ug/L	8270C
2-Methylnaphthalene		0.045 J	0.13	ug/L	8270C
Phenanthrene		0.013 J B	0.10	ug/L	8270C
Fluoranthene		0.020 J	0.10	ug/L	8270C
Pyrene		0.017 J	0.10	ug/L	8270C
Benzo[a]anthracene		0.022 J B	0.10	ug/L	8270C
Benzofluoranthene		0.037 J	0.20	ug/L	8270C
Naphthalene		0.10 J	2.0	ug/L	8270C
Diethyl phthalate		0.14 J	2.0	ug/L	8270C
Di-n-butyl phthalate		0.43 J B	2.0	ug/L	8270C
Butyl benzyl phthalate		1.0 J B	3.1	ug/L	8270C
Bis(2-ethylhexyl) phthalate		1.1 J B	15	ug/L	8270C
Gasoline		0.012 J B	0.050	mg/L	NWTPH-Gx
<b>Total Recoverable</b>					
Chromium		0.0053	0.0020	mg/L	6020

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
<b>580-3591-25</b>	<b>PP17-060914-020</b>					
Trichloroethene		26	J	37	ug/Kg	8260B
Naphthalene		88		5.0	ug/Kg	8270C
2-Methylnaphthalene		190		5.0	ug/Kg	8270C
1-Methylnaphthalene		39		5.0	ug/Kg	8270C
Acenaphthene		11		5.0	ug/Kg	8270C
Phenanthrene		52	B	5.0	ug/Kg	8270C
Anthracene		4.3	J	5.0	ug/Kg	8270C
Fluoranthene		100	B	5.0	ug/Kg	8270C
Pyrene		90	B	5.0	ug/Kg	8270C
Benzo[a]anthracene		48	B	5.0	ug/Kg	8270C
Chrysene		46	B	5.0	ug/Kg	8270C
Benzo[fluoranthene]		90	B	9.9	ug/Kg	8270C
Benzo[a]pyrene		38	B	5.0	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		29	B	5.0	ug/Kg	8270C
Dibenz(a,h)anthracene		8.3		5.0	ug/Kg	8270C
Benzo[g,h,i]perylene		38	B	5.0	ug/Kg	8270C
Diethyl phthalate		12	J	99	ug/Kg	8270C
Di-n-octyl phthalate		140	J	200	ug/Kg	8270C
1-Methylnaphthalene		25	J	30	ug/Kg	8270C
Motor Oil (>C24-C36)		140		49	mg/Kg	NWTPH-Dx
#2 Diesel (C10-C24)		210		24	mg/Kg	NWTPH-Dx
Arsenic		23		2.3	mg/Kg	6010B
Lead		840		0.70	mg/Kg	6010B
Chromium		45		0.47	mg/Kg	6010B
Mercury		0.024	B	0.015	mg/Kg	7471A
<b>580-3591-27</b>	<b>PP17-060914-060</b>					
Fluoranthene		0.75	J B	5.5	ug/Kg	8270C
Pyrene		0.78	J B	5.5	ug/Kg	8270C
Benzo[a]anthracene		1.2	J B	5.5	ug/Kg	8270C
Chrysene		0.76	J B	5.5	ug/Kg	8270C
Benzo[fluoranthene]		1.4	J B	11	ug/Kg	8270C
Benzo[a]pyrene		0.72	J B	5.5	ug/Kg	8270C
Arsenic		2.6	J	2.7	mg/Kg	6010B
Lead		9.2		0.80	mg/Kg	6010B
Chromium		15		0.53	mg/Kg	6010B
Mercury		0.023	B	0.019	mg/Kg	7471A

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>580-3591-29</b>	<b>PP17-060914-W</b>				
Vinyl chloride		16	1.0	ug/L	8260B
trans-1,2-Dichloroethene		0.12 J	1.0	ug/L	8260B
cis-1,2-Dichloroethene		0.62 J	1.0	ug/L	8260B
Benzene		1.5	1.0	ug/L	8260B
Trichloroethene		0.11 J	1.0	ug/L	8260B
Toluene		0.20 J	1.0	ug/L	8260B
m-Xylene & p-Xylene		0.18 J	2.0	ug/L	8260B
o-Xylene		0.081 J	1.0	ug/L	8260B
1,2,4-Trimethylbenzene		0.099 J	1.0	ug/L	8260B
Naphthalene		0.14 J	1.0	ug/L	8260B
Naphthalene		0.076 J B	0.11	ug/L	8270C
2-Methylnaphthalene		0.055 J	0.14	ug/L	8270C
Phenanthrene		0.011 J B	0.11	ug/L	8270C
Naphthalene		0.088 J	2.2	ug/L	8270C
Diethyl phthalate		0.12 J	2.2	ug/L	8270C
Di-n-butyl phthalate		0.50 J B	2.2	ug/L	8270C
Butyl benzyl phthalate		1.1 J B	3.3	ug/L	8270C
Bis(2-ethylhexyl) phthalate		1.1 J B	17	ug/L	8270C
Gasoline		0.0096 J B	0.050	mg/L	NWTPH-Gx
<b>Total Recoverable</b>					
Chromium		0.0048	0.0020	mg/L	6020
<b>580-3591-30</b>	<b>PP09-060915-W</b>				
<b>Total Recoverable</b>					
Arsenic		0.00049 J	0.0020	mg/L	6020
Lead		0.000085 J B	0.0020	mg/L	6020
Chromium		0.0058	0.0020	mg/L	6020
<b>580-3591-32</b>	<b>PP12-060915-020</b>				
Arsenic		4.2	2.7	mg/Kg	6010B
Lead		8.9	0.81	mg/Kg	6010B
Chromium		21	0.54	mg/Kg	6010B
Mercury		0.080 B	0.018	mg/Kg	7471A
<b>580-3591-33</b>	<b>PP12-060915-040</b>				
Arsenic		4.7	2.3	mg/Kg	6010B
Lead		14	0.68	mg/Kg	6010B
Chromium		23	0.46	mg/Kg	6010B
Mercury		0.058 B	0.017	mg/Kg	7471A

STL Seattle

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
<b>580-3591-37</b>	<b>PP11-060915-020</b>					
Arsenic		3.3		2.4	mg/Kg	6010B
Lead		8.3		0.72	mg/Kg	6010B
Chromium		15		0.48	mg/Kg	6010B
Mercury		0.018	B	0.016	mg/Kg	7471A
<b>580-3591-39</b>	<b>PP11-060915-060</b>					
Arsenic		17		7.2	mg/Kg	6010B
Lead		18		2.2	mg/Kg	6010B
Chromium		14		1.4	mg/Kg	6010B
Mercury		0.040	J B	0.044	mg/Kg	7471A
<b>580-3591-40</b>	<b>PP11-060915-080</b>					
Arsenic		5.9		2.4	mg/Kg	6010B
Lead		6.8		0.72	mg/Kg	6010B
Chromium		27		0.48	mg/Kg	6010B
Mercury		0.039	B	0.017	mg/Kg	7471A
<b>580-3591-41</b>	<b>PP11-060915-080DUP</b>					
Arsenic		6.0		2.6	mg/Kg	6010B
Lead		2.6		0.78	mg/Kg	6010B
Chromium		24		0.52	mg/Kg	6010B
Mercury		0.018	J B	0.021	mg/Kg	7471A
<b>580-3591-43</b>	<b>PP10-060915-020</b>					
Arsenic		4.1		2.5	mg/Kg	6010B
Lead		44		0.75	mg/Kg	6010B
Chromium		26		0.50	mg/Kg	6010B
Mercury		0.069	B	0.020	mg/Kg	7471A
<b>580-3591-45</b>	<b>PP10-060915-060</b>					
Arsenic		7.2		4.8	mg/Kg	6010B
Lead		6.6		1.4	mg/Kg	6010B
Chromium		36		0.96	mg/Kg	6010B

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
<b>580-3591-47</b>	<b>PP10-060915-W</b>					
Mercury		0.00012	J B	0.00020	mg/L	7470A
<b>Total Recoverable</b>						
Lead		0.000060	J B	0.0020	mg/L	6020
Chromium		0.0075		0.0020	mg/L	6020
<b>580-3591-49</b>	<b>PP09-060915-020</b>					
Arsenic		6.0		2.5	mg/Kg	6010B
Lead		68		0.76	mg/Kg	6010B
Chromium		18		0.50	mg/Kg	6010B
Mercury		0.20	B	0.015	mg/Kg	7471A
<b>580-3591-51</b>	<b>PP09-060915-060</b>					
Arsenic		5.0		2.9	mg/Kg	6010B
Lead		6.7		0.88	mg/Kg	6010B
Chromium		24		0.58	mg/Kg	6010B
Mercury		0.084	B	0.016	mg/Kg	7471A
<b>580-3591-52</b>	<b>PP09-060915-060DUP</b>					
Arsenic		6.0		3.2	mg/Kg	6010B
Lead		79		0.97	mg/Kg	6010B
Chromium		24		0.65	mg/Kg	6010B
Mercury		0.15	B	0.020	mg/Kg	7471A
<b>580-3591-53</b>	<b>PP09-060915-080</b>					
Arsenic		5.4		2.9	mg/Kg	6010B
Lead		4.8		0.88	mg/Kg	6010B
Chromium		27		0.58	mg/Kg	6010B
Mercury		0.020	J B	0.021	mg/Kg	7471A
<b>580-3591-54</b>	<b>PP09-060915-080DUP</b>					
Arsenic		6.8		2.8	mg/Kg	6010B
Lead		3.8		0.83	mg/Kg	6010B
Chromium		25		0.55	mg/Kg	6010B

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>580-3591-55</b>	<b>PP11-060915-W</b>				
<i>Total Recoverable</i>					
Arsenic		0.0034	0.0020	mg/L	6020
Chromium		0.0085	0.0020	mg/L	6020
<b>580-3591-56</b>	<b>PP12-060915-W</b>				
<i>Total Recoverable</i>					
Chromium		0.0069	0.0020	mg/L	6020

## SAMPLE SUMMARY

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-3591-2	PP13-060914-020	Solid	09/14/2006 1105	09/15/2006 1830
580-3591-4	PP13-060914-060	Solid	09/14/2006 1115	09/15/2006 1830
580-3591-6	PP13-060914-W	Water	09/14/2006 1130	09/15/2006 1830
580-3591-7	PP13-060914-WDUP	Water	09/14/2006 1140	09/15/2006 1830
580-3591-8	PP14-060914-040	Solid	09/14/2006 1240	09/15/2006 1830
580-3591-9	PP14-060914-060	Solid	09/14/2006 1245	09/15/2006 1830
580-3591-11	PP14-060914-W	Water	09/14/2006 1315	09/15/2006 1830
580-3591-13	PP15-060914-020	Solid	09/14/2006 1405	09/15/2006 1830
580-3591-15	PP15-060914-060	Solid	09/14/2006 1415	09/15/2006 1830
580-3591-17	PP15-060914-W	Water	09/14/2006 1430	09/15/2006 1830
580-3591-19	PP16-060914-020	Solid	09/14/2006 1505	09/15/2006 1830
580-3591-21	PP16-060914-060	Solid	09/14/2006 1515	09/15/2006 1830
580-3591-23	PP16-060914-W	Water	09/14/2006 1315	09/15/2006 1830
580-3591-25	PP17-060914-020	Solid	09/14/2006 1545	09/15/2006 1830
580-3591-27	PP17-060914-060	Solid	09/14/2006 1600	09/15/2006 1830
580-3591-29	PP17-060914-W	Water	09/14/2006 1610	09/15/2006 1830
580-3591-30	PP09-060915-W	Water	09/15/2006 1230	09/15/2006 1830
580-3591-32	PP12-060915-020	Solid	09/15/2006 0825	09/15/2006 1830
580-3591-33	PP12-060915-040	Solid	09/15/2006 0830	09/15/2006 1830
580-3591-37	PP11-060915-020	Solid	09/15/2006 0905	09/15/2006 1830
580-3591-39	PP11-060915-060	Solid	09/15/2006 0915	09/15/2006 1830
580-3591-40	PP11-060915-080	Solid	09/15/2006 0920	09/15/2006 1830
580-3591-41	PP11-060915-080DUP	Solid	09/15/2006 0925	09/15/2006 1830
580-3591-43	PP10-060915-020	Solid	09/15/2006 1020	09/15/2006 1830
580-3591-45	PP10-060915-060	Solid	09/15/2006 1030	09/15/2006 1830
580-3591-47	PP10-060915-W	Water	09/15/2006 1045	09/15/2006 1830
580-3591-49	PP09-060915-020	Solid	09/15/2006 1155	09/15/2006 1830
580-3591-51	PP09-060915-060	Solid	09/15/2006 1205	09/15/2006 1830
580-3591-52	PP09-060915-060DUP	Solid	09/15/2006 1210	09/15/2006 1830
580-3591-53	PP09-060915-080	Solid	09/15/2006 1215	09/15/2006 1830
580-3591-54	PP09-060915-080DUP	Solid	09/15/2006 1220	09/15/2006 1830
580-3591-55	PP11-060915-W	Water	09/15/2006 1000	09/15/2006 1830
580-3591-56	PP12-060915-W	Water	09/15/2006 0905	09/15/2006 1830



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-020**

Lab Sample ID: 580-3591-2

Date Sampled: 09/14/2006 1105

Client Matrix: Solid

% Moisture: 2.2

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001293.D

Dilution: 1.0

Initial Weight/Volume: 5.68 g

Date Analyzed: 09/25/2006 1325

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		10	72
Chloromethane		ND		13	72
Vinyl chloride		ND		9.4	29
Bromomethane		ND	*	50	360
Chloroethane		ND	*	52	360
Trichlorofluoromethane		ND		6.8	72
1,1-Dichloroethene		ND		9.5	29
Methylene Chloride		ND		11	72
trans-1,2-Dichloroethene		ND		7.7	72
1,1-Dichloroethane		ND		17	72
2,2-Dichloropropane		ND		8.5	72
cis-1,2-Dichloroethene		ND		11	72
Chlorobromomethane		ND		8.6	72
Chloroform		ND		6.8	72
1,1,1-Trichloroethane		ND		7.0	29
Carbon tetrachloride		ND		5.4	29
1,1-Dichloropropene		ND		5.6	72
Benzene		ND		5.0	14
1,2-Dichloroethane		ND		15	72
Trichloroethene		ND		5.4	29
1,2-Dichloropropane		ND		4.5	14
Dibromomethane		ND		13	72
Dichlorobromomethane		ND		5.0	72
cis-1,3-Dichloropropene		ND		5.0	72
Toluene		ND		13	72
trans-1,3-Dichloropropene		ND		5.0	72
1,1,2-Trichloroethane		ND		6.5	72
Tetrachloroethene		ND		13	45
1,3-Dichloropropane		ND		7.6	29
Chlorodibromomethane		ND		4.5	72
Ethylene Dibromide		ND		12	72
Chlorobenzene		ND		22	72
Ethylbenzene		ND		13	72
1,1,1,2-Tetrachloroethane		ND	*	6.8	72
1,1,2,2-Tetrachloroethane		ND		4.3	14
m-Xylene & p-Xylene		ND		27	72
o-Xylene		ND		13	72
Styrene		ND		5.8	72
Bromoform		ND		5.0	72
Isopropylbenzene		ND		11	72
Bromobenzene		ND		6.5	72
N-Propylbenzene		ND		12	72
1,2,3-Trichloropropane		ND		13	72

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-020**

Lab Sample ID: 580-3591-2

Date Sampled: 09/14/2006 1105

Client Matrix: Solid

% Moisture: 2.2

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001293.D

Dilution: 1.0

Initial Weight/Volume: 5.68 g

Date Analyzed: 09/25/2006 1325

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Chlorotoluene		ND		10	72
1,3,5-Trimethylbenzene		ND		11	72
4-Chlorotoluene		ND		6.3	72
tert-Butylbenzene		ND		6.1	72
1,2,4-Trimethylbenzene		ND		12	72
sec-Butylbenzene		ND		2.9	72
1,3-Dichlorobenzene		ND		7.4	72
4-Isopropyltoluene		ND		5.0	72
1,4-Dichlorobenzene		ND		3.6	72
n-Butylbenzene		ND		4.3	72
1,2-Dichlorobenzene		ND		6.1	72
1,2-Dibromo-3-Chloropropane		ND		16	72
1,2,4-Trichlorobenzene		ND		7.0	72
1,2,3-Trichlorobenzene		ND		8.6	72
Hexachlorobutadiene		ND		12	72
Naphthalene		ND		4.7	72
Surrogate		%Rec		Acceptance Limits	
Fluorobenzene (Surr)		106		75 - 125	
Toluene-d8 (Surr)		100		75 - 125	
Ethylbenzene-d10		100		75 - 125	
4-Bromofluorobenzene (Surr)		90		75 - 125	
Trifluorotoluene (Surr)		101		75 - 125	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-060**

Lab Sample ID: 580-3591-4

Date Sampled: 09/14/2006 1115

Client Matrix: Solid

% Moisture: 13.6

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001295.D

Dilution: 1.0

Initial Weight/Volume: 5.61 g

Date Analyzed: 09/25/2006 1349

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		12	83
Chloromethane		ND		15	83
Vinyl chloride		ND		11	33
Bromomethane		ND	*	58	410
Chloroethane		ND	*	60	410
Trichlorofluoromethane		15	J	7.8	83
1,1-Dichloroethene		ND		11	33
Methylene Chloride		ND		13	83
trans-1,2-Dichloroethene		ND		8.9	83
1,1-Dichloroethane		ND		20	83
2,2-Dichloropropane		ND		9.7	83
cis-1,2-Dichloroethene		ND		12	83
Chlorobromomethane		ND		9.9	83
Chloroform		ND		7.8	83
1,1,1-Trichloroethane		ND		8.0	33
Carbon tetrachloride		ND		6.2	33
1,1-Dichloropropene		ND		6.4	83
Benzene		ND		5.8	17
1,2-Dichloroethane		ND		17	83
Trichloroethene		ND		6.2	33
1,2-Dichloropropane		ND		5.2	17
Dibromomethane		ND		15	83
Dichlorobromomethane		ND		5.8	83
cis-1,3-Dichloropropene		ND		5.8	83
Toluene		ND		15	83
trans-1,3-Dichloropropene		ND		5.8	83
1,1,2-Trichloroethane		ND		7.4	83
Tetrachloroethene		ND		15	52
1,3-Dichloropropane		ND		8.7	33
Chlorodibromomethane		ND		5.2	83
Ethylene Dibromide		ND		14	83
Chlorobenzene		ND		25	83
Ethylbenzene		ND		15	83
1,1,1,2-Tetrachloroethane		ND	*	7.8	83
1,1,2,2-Tetrachloroethane		ND		5.0	17
m-Xylene & p-Xylene		ND		31	83
o-Xylene		ND		15	83
Styrene		ND		6.6	83
Bromoform		ND		5.8	83
Isopropylbenzene		ND		13	83
Bromobenzene		ND		7.4	83
N-Propylbenzene		ND		14	83
1,2,3-Trichloropropane		ND		15	83

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-060**

Lab Sample ID: 580-3591-4

Date Sampled: 09/14/2006 1115

Client Matrix: Solid

% Moisture: 13.6

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001295.D

Dilution: 1.0

Initial Weight/Volume: 5.61 g

Date Analyzed: 09/25/2006 1349

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Chlorotoluene		ND		12	83
1,3,5-Trimethylbenzene		ND		12	83
4-Chlorotoluene		ND		7.2	83
tert-Butylbenzene		ND		7.0	83
1,2,4-Trimethylbenzene		ND		14	83
sec-Butylbenzene		ND		3.3	83
1,3-Dichlorobenzene		ND		8.5	83
4-Isopropyltoluene		ND		5.8	83
1,4-Dichlorobenzene		ND		4.1	83
n-Butylbenzene		ND		5.0	83
1,2-Dichlorobenzene		ND		7.0	83
1,2-Dibromo-3-Chloropropane		ND		18	83
1,2,4-Trichlorobenzene		ND		8.0	83
1,2,3-Trichlorobenzene		ND		9.9	83
Hexachlorobutadiene		ND		14	83
Naphthalene		ND		5.4	83
Surrogate		%Rec		Acceptance Limits	
Fluorobenzene (Surr)		104		75 - 125	
Toluene-d8 (Surr)		101		75 - 125	
Ethylbenzene-d10		102		75 - 125	
4-Bromofluorobenzene (Surr)		90		75 - 125	
Trifluorotoluene (Surr)		93		75 - 125	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-W**

Lab Sample ID: 580-3591-6  
Client Matrix: Water

Date Sampled: 09/14/2006 1130  
Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation:	5030B		Lab File ID: VB0001207.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	09/22/2006 1430		Final Weight/Volume: 5 mL
Date Prepared:	09/22/2006 1430		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dichlorodifluoromethane	ND		0.13	1.0
Chloromethane	ND		0.18	1.0
Vinyl chloride	0.74	J	0.18	1.0
Bromomethane	ND		0.23	1.0
Chloroethane	ND		0.17	5.0
Trichlorofluoromethane	ND		0.088	1.0
1,1-Dichloroethene	ND		0.098	1.0
Methylene Chloride	ND		0.090	1.0
trans-1,2-Dichloroethene	ND		0.074	1.0
1,1-Dichloroethane	ND		0.11	1.0
2,2-Dichloropropane	ND		0.17	1.0
cis-1,2-Dichloroethene	ND		0.079	1.0
Chlorobromomethane	ND		0.12	1.0
Chloroform	ND		0.067	1.0
1,1,1-Trichloroethane	ND		0.11	1.0
Carbon tetrachloride	ND		0.070	1.0
1,1-Dichloropropene	ND		0.080	1.0
Benzene	0.34	J	0.10	1.0
1,2-Dichloroethane	ND		0.20	1.0
Trichloroethene	ND		0.074	1.0
1,2-Dichloropropane	ND		0.092	1.0
Dibromomethane	ND		0.080	1.0
Dichlorobromomethane	ND		0.076	1.0
cis-1,3-Dichloropropene	ND		0.064	1.0
Toluene	0.45	J	0.066	1.0
trans-1,3-Dichloropropene	ND		0.082	1.0
1,1,2-Trichloroethane	ND		0.076	1.0
Tetrachloroethene	ND		0.088	1.0
1,3-Dichloropropane	ND		0.10	1.0
Chlorodibromomethane	ND		0.11	1.0
Ethylene Dibromide	ND		0.076	1.0
Chlorobenzene	ND		0.057	1.0
Ethylbenzene	0.094	J	0.085	1.0
1,1,1,2-Tetrachloroethane	ND		0.073	1.0
1,1,2,2-Tetrachloroethane	ND		0.11	1.0
m-Xylene & p-Xylene	0.41	J	0.17	2.0
o-Xylene	0.20	J	0.068	1.0
Styrene	ND		0.061	1.0
Bromoform	ND		0.076	1.0
Isopropylbenzene	ND		0.084	1.0
Bromobenzene	ND		0.079	1.0
N-Propylbenzene	ND		0.069	1.0
1,2,3-Trichloropropane	ND		0.081	1.0

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-W**

Lab Sample ID: 580-3591-6  
 Client Matrix: Water

Date Sampled: 09/14/2006 1130  
 Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation: 5030B		Lab File ID: VB0001207.D
Dilution: 1.0		Initial Weight/Volume: 5 mL
Date Analyzed: 09/22/2006 1430		Final Weight/Volume: 5 mL
Date Prepared: 09/22/2006 1430		

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorotoluene	ND		0.060	1.0
1,3,5-Trimethylbenzene	ND		0.077	1.0
4-Chlorotoluene	ND		0.098	1.0
tert-Butylbenzene	ND		0.045	1.0
1,2,4-Trimethylbenzene	0.20	J	0.086	1.0
sec-Butylbenzene	ND		0.035	1.0
1,3-Dichlorobenzene	ND		0.040	1.0
4-Isopropyltoluene	ND		0.077	1.0
1,4-Dichlorobenzene	ND		0.052	1.0
n-Butylbenzene	ND		0.098	1.0
1,2-Dichlorobenzene	ND		0.070	1.0
1,2-Dibromo-3-Chloropropane	ND		0.43	2.0
1,2,4-Trichlorobenzene	ND		0.046	1.0
1,2,3-Trichlorobenzene	ND		0.071	1.0
Hexachlorobutadiene	ND		0.14	1.0
Naphthalene	0.29	J	0.070	1.0
Surrogate	%Rec		Acceptance Limits	
Fluorobenzene (Surr)	105		80 - 120	
Toluene-d8 (Surr)	103		80 - 120	
Ethylbenzene-d10	104		80 - 120	
4-Bromofluorobenzene (Surr)	95		80 - 120	
Trifluorotoluene (Surr)	99		80 - 120	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-WDUP**

Lab Sample ID: 580-3591-7  
Client Matrix: Water

Date Sampled: 09/14/2006 1140  
Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation:	5030B		Lab File ID: VB0001209.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	09/22/2006 1454		Final Weight/Volume: 5 mL
Date Prepared:	09/22/2006 1454		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dichlorodifluoromethane	ND		0.13	1.0
Chloromethane	ND		0.18	1.0
Vinyl chloride	0.70	J	0.18	1.0
Bromomethane	ND		0.23	1.0
Chloroethane	ND		0.17	5.0
Trichlorofluoromethane	ND		0.088	1.0
1,1-Dichloroethene	ND		0.098	1.0
Methylene Chloride	ND		0.090	1.0
trans-1,2-Dichloroethene	ND		0.074	1.0
1,1-Dichloroethane	ND		0.11	1.0
2,2-Dichloropropane	ND		0.17	1.0
cis-1,2-Dichloroethene	ND		0.079	1.0
Chlorobromomethane	ND		0.12	1.0
Chloroform	ND		0.067	1.0
1,1,1-Trichloroethane	ND		0.11	1.0
Carbon tetrachloride	ND		0.070	1.0
1,1-Dichloropropene	ND		0.080	1.0
Benzene	0.34	J	0.10	1.0
1,2-Dichloroethane	ND		0.20	1.0
Trichloroethene	ND		0.074	1.0
1,2-Dichloropropane	ND		0.092	1.0
Dibromomethane	ND		0.080	1.0
Dichlorobromomethane	ND		0.076	1.0
cis-1,3-Dichloropropene	ND		0.064	1.0
Toluene	0.14	J	0.066	1.0
trans-1,3-Dichloropropene	ND		0.082	1.0
1,1,2-Trichloroethane	ND		0.076	1.0
Tetrachloroethene	ND		0.088	1.0
1,3-Dichloropropane	ND		0.10	1.0
Chlorodibromomethane	ND		0.11	1.0
Ethylene Dibromide	ND		0.076	1.0
Chlorobenzene	ND		0.057	1.0
Ethylbenzene	ND		0.085	1.0
1,1,1,2-Tetrachloroethane	ND		0.073	1.0
1,1,2,2-Tetrachloroethane	ND		0.11	1.0
m-Xylene & p-Xylene	0.18	J	0.17	2.0
o-Xylene	0.082	J	0.068	1.0
Styrene	ND		0.061	1.0
Bromoform	ND		0.076	1.0
Isopropylbenzene	ND		0.084	1.0
Bromobenzene	ND		0.079	1.0
N-Propylbenzene	ND		0.069	1.0
1,2,3-Trichloropropane	ND		0.081	1.0

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-WDUP**

Lab Sample ID: 580-3591-7  
 Client Matrix: Water

Date Sampled: 09/14/2006 1140  
 Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation: 5030B		Lab File ID: VB0001209.D
Dilution: 1.0		Initial Weight/Volume: 5 mL
Date Analyzed: 09/22/2006 1454		Final Weight/Volume: 5 mL
Date Prepared: 09/22/2006 1454		

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorotoluene	ND		0.060	1.0
1,3,5-Trimethylbenzene	ND		0.077	1.0
4-Chlorotoluene	ND		0.098	1.0
tert-Butylbenzene	ND		0.045	1.0
1,2,4-Trimethylbenzene	0.10	J	0.086	1.0
sec-Butylbenzene	ND		0.035	1.0
1,3-Dichlorobenzene	ND		0.040	1.0
4-Isopropyltoluene	ND		0.077	1.0
1,4-Dichlorobenzene	ND		0.052	1.0
n-Butylbenzene	ND		0.098	1.0
1,2-Dichlorobenzene	ND		0.070	1.0
1,2-Dibromo-3-Chloropropane	ND		0.43	2.0
1,2,4-Trichlorobenzene	ND		0.046	1.0
1,2,3-Trichlorobenzene	ND		0.071	1.0
Hexachlorobutadiene	ND		0.14	1.0
Naphthalene	0.11	J	0.070	1.0
Surrogate	%Rec		Acceptance Limits	
Fluorobenzene (Surr)	105		80 - 120	
Toluene-d8 (Surr)	103		80 - 120	
Ethylbenzene-d10	103		80 - 120	
4-Bromofluorobenzene (Surr)	94		80 - 120	
Trifluorotoluene (Surr)	95		80 - 120	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-040**

Lab Sample ID: 580-3591-8

Date Sampled: 09/14/2006 1240

Client Matrix: Solid

% Moisture: 10.7

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001297.D

Dilution: 1.0

Initial Weight/Volume: 5.66 g

Date Analyzed: 09/25/2006 1412

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		11	79
Chloromethane		ND		14	79
Vinyl chloride		ND		10	32
Bromomethane		ND	*	55	400
Chloroethane		ND	*	57	400
Trichlorofluoromethane		ND		7.5	79
1,1-Dichloroethene		ND		10	32
Methylene Chloride		ND		12	79
trans-1,2-Dichloroethene		ND		8.5	79
1,1-Dichloroethane		ND		19	79
2,2-Dichloropropane		ND		9.3	79
cis-1,2-Dichloroethene		ND		12	79
Chlorobromomethane		ND		9.5	79
Chloroform		ND		7.5	79
1,1,1-Trichloroethane		ND		7.7	32
Carbon tetrachloride		ND		5.9	32
1,1-Dichloropropene		ND		6.1	79
Benzene		ND		5.5	16
1,2-Dichloroethane		ND		16	79
Trichloroethene		12	J	5.9	32
1,2-Dichloropropane		ND		4.9	16
Dibromomethane		ND		14	79
Dichlorobromomethane		ND		5.5	79
cis-1,3-Dichloropropene		ND		5.5	79
Toluene		ND		15	79
trans-1,3-Dichloropropene		ND		5.5	79
1,1,2-Trichloroethane		ND		7.1	79
Tetrachloroethene		ND		14	49
1,3-Dichloropropane		ND		8.3	32
Chlorodibromomethane		ND		4.9	79
Ethylene Dibromide		ND		13	79
Chlorobenzene		ND		24	79
Ethylbenzene		ND		14	79
1,1,1,2-Tetrachloroethane		ND	*	7.5	79
1,1,2,2-Tetrachloroethane		ND		4.7	16
m-Xylene & p-Xylene		ND		30	79
o-Xylene		ND		14	79
Styrene		ND		6.3	79
Bromoform		ND		5.5	79
Isopropylbenzene		ND		12	79
Bromobenzene		ND		7.1	79
N-Propylbenzene		ND		14	79
1,2,3-Trichloropropane		ND		14	79

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-040**

Lab Sample ID: 580-3591-8

Date Sampled: 09/14/2006 1240

Client Matrix: Solid

% Moisture: 10.7

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001297.D

Dilution: 1.0

Initial Weight/Volume: 5.66 g

Date Analyzed: 09/25/2006 1412

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Chlorotoluene		ND		11	79
1,3,5-Trimethylbenzene		ND		12	79
4-Chlorotoluene		ND		6.9	79
tert-Butylbenzene		ND		6.7	79
1,2,4-Trimethylbenzene		ND		14	79
sec-Butylbenzene		ND		3.2	79
1,3-Dichlorobenzene		ND		8.1	79
4-Isopropyltoluene		ND		5.5	79
1,4-Dichlorobenzene		ND		4.0	79
n-Butylbenzene		ND		4.7	79
1,2-Dichlorobenzene		ND		6.7	79
1,2-Dibromo-3-Chloropropane		ND		17	79
1,2,4-Trichlorobenzene		ND		7.7	79
1,2,3-Trichlorobenzene		ND		9.5	79
Hexachlorobutadiene		ND		13	79
Naphthalene		ND		5.1	79
Surrogate		%Rec		Acceptance Limits	
Fluorobenzene (Surr)		104		75 - 125	
Toluene-d8 (Surr)		104		75 - 125	
Ethylbenzene-d10		101		75 - 125	
4-Bromofluorobenzene (Surr)		92		75 - 125	
Trifluorotoluene (Surr)		99		75 - 125	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-060**

Lab Sample ID: 580-3591-9

Date Sampled: 09/14/2006 1245

Client Matrix: Solid

% Moisture: 17.3

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001299.D

Dilution: 1.0

Initial Weight/Volume: 5.86 g

Date Analyzed: 09/25/2006 1436

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		12	83
Chloromethane		16	J	15	83
Vinyl chloride		ND		11	33
Bromomethane		ND	*	58	410
Chloroethane		ND	*	60	410
Trichlorofluoromethane		31	J	7.8	83
1,1-Dichloroethene		ND		11	33
Methylene Chloride		21	J	13	83
trans-1,2-Dichloroethene		ND		8.9	83
1,1-Dichloroethane		ND		20	83
2,2-Dichloropropane		ND		9.7	83
cis-1,2-Dichloroethene		ND		12	83
Chlorobromomethane		ND		9.9	83
Chloroform		ND		7.8	83
1,1,1-Trichloroethane		ND		8.1	33
Carbon tetrachloride		ND		6.2	33
1,1-Dichloropropene		ND		6.4	83
Benzene		ND		5.8	17
1,2-Dichloroethane		ND		17	83
Trichloroethene		7.7	J	6.2	33
1,2-Dichloropropane		ND		5.2	17
Dibromomethane		ND		15	83
Dichlorobromomethane		ND		5.8	83
cis-1,3-Dichloropropene		ND		5.8	83
Toluene		ND		15	83
trans-1,3-Dichloropropene		ND		5.8	83
1,1,2-Trichloroethane		ND		7.4	83
Tetrachloroethene		ND		15	52
1,3-Dichloropropane		ND		8.7	33
Chlorodibromomethane		ND		5.2	83
Ethylene Dibromide		ND		14	83
Chlorobenzene		ND		25	83
Ethylbenzene		ND		15	83
1,1,1,2-Tetrachloroethane		ND	*	7.8	83
1,1,2,2-Tetrachloroethane		ND		5.0	17
m-Xylene & p-Xylene		ND		31	83
o-Xylene		ND		15	83
Styrene		ND		6.6	83
Bromoform		ND		5.8	83
Isopropylbenzene		ND		13	83
Bromobenzene		ND		7.4	83
N-Propylbenzene		ND		14	83
1,2,3-Trichloropropane		ND		15	83

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-060**

Lab Sample ID: 580-3591-9

Date Sampled: 09/14/2006 1245

Client Matrix: Solid

% Moisture: 17.3

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001299.D

Dilution: 1.0

Initial Weight/Volume: 5.86 g

Date Analyzed: 09/25/2006 1436

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Chlorotoluene		ND		12	83
1,3,5-Trimethylbenzene		ND		12	83
4-Chlorotoluene		ND		7.2	83
tert-Butylbenzene		ND		7.0	83
1,2,4-Trimethylbenzene		ND		14	83
sec-Butylbenzene		ND		3.3	83
1,3-Dichlorobenzene		ND		8.5	83
4-Isopropyltoluene		ND		5.8	83
1,4-Dichlorobenzene		ND		4.1	83
n-Butylbenzene		ND		5.0	83
1,2-Dichlorobenzene		ND		7.0	83
1,2-Dibromo-3-Chloropropane		ND		18	83
1,2,4-Trichlorobenzene		ND		8.1	83
1,2,3-Trichlorobenzene		ND		9.9	83
Hexachlorobutadiene		ND		14	83
Naphthalene		ND		5.4	83
Surrogate		%Rec		Acceptance Limits	
Fluorobenzene (Surr)		106		75 - 125	
Toluene-d8 (Surr)		102		75 - 125	
Ethylbenzene-d10		102		75 - 125	
4-Bromofluorobenzene (Surr)		92		75 - 125	
Trifluorotoluene (Surr)		87		75 - 125	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-W**

Lab Sample ID: 580-3591-11  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation:	5030B		Lab File ID: VB0001211.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	09/22/2006 1518		Final Weight/Volume: 5 mL
Date Prepared:	09/22/2006 1518		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dichlorodifluoromethane	ND		0.13	1.0
Chloromethane	ND		0.18	1.0
Vinyl chloride	0.67	J	0.18	1.0
Bromomethane	ND		0.23	1.0
Chloroethane	ND		0.17	5.0
Trichlorofluoromethane	ND		0.088	1.0
1,1-Dichloroethene	ND		0.098	1.0
Methylene Chloride	ND		0.090	1.0
trans-1,2-Dichloroethene	ND		0.074	1.0
1,1-Dichloroethane	ND		0.11	1.0
2,2-Dichloropropane	ND		0.17	1.0
cis-1,2-Dichloroethene	ND		0.079	1.0
Chlorobromomethane	ND		0.12	1.0
Chloroform	ND		0.067	1.0
1,1,1-Trichloroethane	ND		0.11	1.0
Carbon tetrachloride	ND		0.070	1.0
1,1-Dichloropropene	ND		0.080	1.0
Benzene	0.33	J	0.10	1.0
1,2-Dichloroethane	ND		0.20	1.0
Trichloroethene	ND		0.074	1.0
1,2-Dichloropropane	ND		0.092	1.0
Dibromomethane	ND		0.080	1.0
Dichlorobromomethane	ND		0.076	1.0
cis-1,3-Dichloropropene	ND		0.064	1.0
Toluene	0.34	J	0.066	1.0
trans-1,3-Dichloropropene	ND		0.082	1.0
1,1,2-Trichloroethane	ND		0.076	1.0
Tetrachloroethene	ND		0.088	1.0
1,3-Dichloropropane	ND		0.10	1.0
Chlorodibromomethane	ND		0.11	1.0
Ethylene Dibromide	ND		0.076	1.0
Chlorobenzene	ND		0.057	1.0
Ethylbenzene	ND		0.085	1.0
1,1,1,2-Tetrachloroethane	ND		0.073	1.0
1,1,2,2-Tetrachloroethane	ND		0.11	1.0
m-Xylene & p-Xylene	0.28	J	0.17	2.0
o-Xylene	0.14	J	0.068	1.0
Styrene	ND		0.061	1.0
Bromoform	ND		0.076	1.0
Isopropylbenzene	ND		0.084	1.0
Bromobenzene	ND		0.079	1.0
N-Propylbenzene	ND		0.069	1.0
1,2,3-Trichloropropane	ND		0.081	1.0

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-W**

Lab Sample ID: 580-3591-11  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation: 5030B		Lab File ID: VB0001211.D
Dilution: 1.0		Initial Weight/Volume: 5 mL
Date Analyzed: 09/22/2006 1518		Final Weight/Volume: 5 mL
Date Prepared: 09/22/2006 1518		

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorotoluene	ND		0.060	1.0
1,3,5-Trimethylbenzene	ND		0.077	1.0
4-Chlorotoluene	ND		0.098	1.0
tert-Butylbenzene	ND		0.045	1.0
1,2,4-Trimethylbenzene	0.14	J	0.086	1.0
sec-Butylbenzene	ND		0.035	1.0
1,3-Dichlorobenzene	ND		0.040	1.0
4-Isopropyltoluene	ND		0.077	1.0
1,4-Dichlorobenzene	ND		0.052	1.0
n-Butylbenzene	ND		0.098	1.0
1,2-Dichlorobenzene	ND		0.070	1.0
1,2-Dibromo-3-Chloropropane	ND		0.43	2.0
1,2,4-Trichlorobenzene	ND		0.046	1.0
1,2,3-Trichlorobenzene	ND		0.071	1.0
Hexachlorobutadiene	ND		0.14	1.0
Naphthalene	0.19	J	0.070	1.0
Surrogate	%Rec		Acceptance Limits	
Fluorobenzene (Surr)	106		80 - 120	
Toluene-d8 (Surr)	103		80 - 120	
Ethylbenzene-d10	103		80 - 120	
4-Bromofluorobenzene (Surr)	98		80 - 120	
Trifluorotoluene (Surr)	98		80 - 120	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-020**

Lab Sample ID: 580-3591-13

Date Sampled: 09/14/2006 1405

Client Matrix: Solid

% Moisture: 10.5

Date Received: 09/15/2006 1830

## 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001301.D

Dilution: 1.0

Initial Weight/Volume: 5.44 g

Date Analyzed: 09/25/2006 1500

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		12	82
Chloromethane		ND		15	82
Vinyl chloride		ND		11	33
Bromomethane		ND	*	58	410
Chloroethane		ND	*	60	410
Trichlorofluoromethane		ND		7.8	82
1,1-Dichloroethene		ND		11	33
Methylene Chloride		ND		13	82
trans-1,2-Dichloroethene		ND		8.8	82
1,1-Dichloroethane		ND		20	82
2,2-Dichloropropane		ND		9.7	82
cis-1,2-Dichloroethene		ND		12	82
Chlorobromomethane		ND		9.9	82
Chloroform		140		7.8	82
1,1,1-Trichloroethane		ND		8.0	33
Carbon tetrachloride		66		6.2	33
1,1-Dichloropropene		ND		6.4	82
Benzene		ND		5.8	16
1,2-Dichloroethane		ND		17	82
Trichloroethene		2300		6.2	33
1,2-Dichloropropane		ND		5.1	16
Dibromomethane		ND		15	82
Dichlorobromomethane		ND		5.8	82
cis-1,3-Dichloropropene		ND		5.8	82
Toluene		ND		15	82
trans-1,3-Dichloropropene		ND		5.8	82
1,1,2-Trichloroethane		ND		7.4	82
Tetrachloroethene		54		15	51
1,3-Dichloropropane		ND		8.6	33
Chlorodibromomethane		ND		5.1	82
Ethylene Dibromide		ND		14	82
Chlorobenzene		ND		25	82
Ethylbenzene		ND		15	82
1,1,1,2-Tetrachloroethane		ND	*	7.8	82
1,1,2,2-Tetrachloroethane		ND		4.9	16
m-Xylene & p-Xylene		ND		31	82
o-Xylene		ND		15	82
Styrene		ND		6.6	82
Bromoform		ND		5.8	82
Isopropylbenzene		ND		13	82
Bromobenzene		ND		7.4	82
N-Propylbenzene		ND		14	82
1,2,3-Trichloropropane		ND		15	82

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-020**

Lab Sample ID: 580-3591-13

Date Sampled: 09/14/2006 1405

Client Matrix: Solid

% Moisture: 10.5

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001301.D

Dilution: 1.0

Initial Weight/Volume: 5.44 g

Date Analyzed: 09/25/2006 1500

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Chlorotoluene		ND		12	82
1,3,5-Trimethylbenzene		ND		12	82
4-Chlorotoluene		ND		7.2	82
tert-Butylbenzene		ND		7.0	82
1,2,4-Trimethylbenzene		ND		14	82
sec-Butylbenzene		ND		3.3	82
1,3-Dichlorobenzene		ND		8.4	82
4-Isopropyltoluene		ND		5.8	82
1,4-Dichlorobenzene		ND		4.1	82
n-Butylbenzene		ND		4.9	82
1,2-Dichlorobenzene		ND		7.0	82
1,2-Dibromo-3-Chloropropane		ND		18	82
1,2,4-Trichlorobenzene		ND		8.0	82
1,2,3-Trichlorobenzene		ND		9.9	82
Hexachlorobutadiene		ND		14	82
Naphthalene		13	J	5.3	82
Surrogate		%Rec		Acceptance Limits	
Fluorobenzene (Surr)		107		75 - 125	
Toluene-d8 (Surr)		103		75 - 125	
Ethylbenzene-d10		102		75 - 125	
4-Bromofluorobenzene (Surr)		92		75 - 125	
Trifluorotoluene (Surr)		97		75 - 125	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-060**

Lab Sample ID: 580-3591-15

Date Sampled: 09/14/2006 1415

Client Matrix: Solid

% Moisture: 14.7

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001303.D

Dilution: 1.0

Initial Weight/Volume: 6.45 g

Date Analyzed: 09/25/2006 1524

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		10	73
Chloromethane		35	J	13	73
Vinyl chloride		ND		9.4	29
Bromomethane		ND	*	51	360
Chloroethane		ND	*	53	360
Trichlorofluoromethane		19	J	6.9	73
1,1-Dichloroethene		ND		9.6	29
Methylene Chloride		ND		11	73
trans-1,2-Dichloroethene		ND		7.8	73
1,1-Dichloroethane		ND		17	73
2,2-Dichloropropane		ND		8.5	73
cis-1,2-Dichloroethene		ND		11	73
Chlorobromomethane		ND		8.7	73
Chloroform		ND		6.9	73
1,1,1-Trichloroethane		ND		7.1	29
Carbon tetrachloride		ND		5.5	29
1,1-Dichloropropene		ND		5.6	73
Benzene		ND		5.1	15
1,2-Dichloroethane		ND		15	73
Trichloroethene		ND		5.5	29
1,2-Dichloropropane		ND		4.5	15
Dibromomethane		ND		13	73
Dichlorobromomethane		ND		5.1	73
cis-1,3-Dichloropropene		ND		5.1	73
Toluene		ND		13	73
trans-1,3-Dichloropropene		ND		5.1	73
1,1,2-Trichloroethane		ND		6.5	73
Tetrachloroethene		ND		13	45
1,3-Dichloropropane		ND		7.6	29
Chlorodibromomethane		ND		4.5	73
Ethylene Dibromide		ND		12	73
Chlorobenzene		ND		22	73
Ethylbenzene		ND		13	73
1,1,1,2-Tetrachloroethane		ND	*	6.9	73
1,1,2,2-Tetrachloroethane		ND		4.4	15
m-Xylene & p-Xylene		ND		27	73
o-Xylene		ND		13	73
Styrene		ND		5.8	73
Bromoform		ND		5.1	73
Isopropylbenzene		ND		11	73
Bromobenzene		ND		6.5	73
N-Propylbenzene		ND		13	73
1,2,3-Trichloropropane		ND		13	73

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-060**

Lab Sample ID: 580-3591-15

Date Sampled: 09/14/2006 1415

Client Matrix: Solid

% Moisture: 14.7

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001303.D

Dilution: 1.0

Initial Weight/Volume: 6.45 g

Date Analyzed: 09/25/2006 1524

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Chlorotoluene		ND		11	73
1,3,5-Trimethylbenzene		ND		11	73
4-Chlorotoluene		ND		6.4	73
tert-Butylbenzene		ND		6.2	73
1,2,4-Trimethylbenzene		ND		13	73
sec-Butylbenzene		ND		2.9	73
1,3-Dichlorobenzene		ND		7.5	73
4-Isopropyltoluene		ND		5.1	73
1,4-Dichlorobenzene		ND		3.6	73
n-Butylbenzene		ND		4.4	73
1,2-Dichlorobenzene		ND		6.2	73
1,2-Dibromo-3-Chloropropane		ND		16	73
1,2,4-Trichlorobenzene		ND		7.1	73
1,2,3-Trichlorobenzene		ND		8.7	73
Hexachlorobutadiene		ND		12	73
Naphthalene		ND		4.7	73
Surrogate		%Rec		Acceptance Limits	
Fluorobenzene (Surr)		106		75 - 125	
Toluene-d8 (Surr)		102		75 - 125	
Ethylbenzene-d10		103		75 - 125	
4-Bromofluorobenzene (Surr)		90		75 - 125	
Trifluorotoluene (Surr)		89		75 - 125	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-W**

Lab Sample ID: 580-3591-17  
Client Matrix: Water

Date Sampled: 09/14/2006 1430  
Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation:	5030B		Lab File ID: VB0001213.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	09/22/2006 1542		Final Weight/Volume: 5 mL
Date Prepared:	09/22/2006 1542		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dichlorodifluoromethane	ND		0.13	1.0
Chloromethane	ND		0.18	1.0
Vinyl chloride	2.6		0.18	1.0
Bromomethane	ND		0.23	1.0
Chloroethane	ND		0.17	5.0
Trichlorofluoromethane	ND		0.088	1.0
1,1-Dichloroethene	ND		0.098	1.0
Methylene Chloride	ND		0.090	1.0
trans-1,2-Dichloroethene	ND		0.074	1.0
1,1-Dichloroethane	ND		0.11	1.0
2,2-Dichloropropane	ND		0.17	1.0
cis-1,2-Dichloroethene	0.12	J	0.079	1.0
Chlorobromomethane	ND		0.12	1.0
Chloroform	ND		0.067	1.0
1,1,1-Trichloroethane	ND		0.11	1.0
Carbon tetrachloride	ND		0.070	1.0
1,1-Dichloropropene	ND		0.080	1.0
Benzene	0.41	J	0.10	1.0
1,2-Dichloroethane	ND		0.20	1.0
Trichloroethene	ND		0.074	1.0
1,2-Dichloropropane	ND		0.092	1.0
Dibromomethane	ND		0.080	1.0
Dichlorobromomethane	ND		0.076	1.0
cis-1,3-Dichloropropene	ND		0.064	1.0
Toluene	0.25	J	0.066	1.0
trans-1,3-Dichloropropene	ND		0.082	1.0
1,1,2-Trichloroethane	ND		0.076	1.0
Tetrachloroethene	ND		0.088	1.0
1,3-Dichloropropane	ND		0.10	1.0
Chlorodibromomethane	ND		0.11	1.0
Ethylene Dibromide	ND		0.076	1.0
Chlorobenzene	ND		0.057	1.0
Ethylbenzene	ND		0.085	1.0
1,1,1,2-Tetrachloroethane	ND		0.073	1.0
1,1,2,2-Tetrachloroethane	ND		0.11	1.0
m-Xylene & p-Xylene	0.23	J	0.17	2.0
o-Xylene	0.11	J	0.068	1.0
Styrene	ND		0.061	1.0
Bromoform	ND		0.076	1.0
Isopropylbenzene	ND		0.084	1.0
Bromobenzene	ND		0.079	1.0
N-Propylbenzene	ND		0.069	1.0
1,2,3-Trichloropropane	ND		0.081	1.0

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-W**

Lab Sample ID: 580-3591-17  
Client Matrix: Water

Date Sampled: 09/14/2006 1430  
Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation: 5030B		Lab File ID: VB0001213.D
Dilution: 1.0		Initial Weight/Volume: 5 mL
Date Analyzed: 09/22/2006 1542		Final Weight/Volume: 5 mL
Date Prepared: 09/22/2006 1542		

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorotoluene	ND		0.060	1.0
1,3,5-Trimethylbenzene	ND		0.077	1.0
4-Chlorotoluene	ND		0.098	1.0
tert-Butylbenzene	ND		0.045	1.0
1,2,4-Trimethylbenzene	0.14	J	0.086	1.0
sec-Butylbenzene	ND		0.035	1.0
1,3-Dichlorobenzene	ND		0.040	1.0
4-Isopropyltoluene	ND		0.077	1.0
1,4-Dichlorobenzene	ND		0.052	1.0
n-Butylbenzene	ND		0.098	1.0
1,2-Dichlorobenzene	ND		0.070	1.0
1,2-Dibromo-3-Chloropropane	ND		0.43	2.0
1,2,4-Trichlorobenzene	ND		0.046	1.0
1,2,3-Trichlorobenzene	ND		0.071	1.0
Hexachlorobutadiene	ND		0.14	1.0
Naphthalene	0.16	J	0.070	1.0
Surrogate	%Rec		Acceptance Limits	
Fluorobenzene (Surr)	104		80 - 120	
Toluene-d8 (Surr)	104		80 - 120	
Ethylbenzene-d10	103		80 - 120	
4-Bromofluorobenzene (Surr)	94		80 - 120	
Trifluorotoluene (Surr)	99		80 - 120	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-020**

Lab Sample ID: 580-3591-19

Date Sampled: 09/14/2006 1505

Client Matrix: Solid

% Moisture: 9.8

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001305.D

Dilution: 1.0

Initial Weight/Volume: 4.15 g

Date Analyzed: 09/25/2006 1547

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		15	110
Chloromethane		ND		19	110
Vinyl chloride		ND		14	43
Bromomethane		ND	*	75	530
Chloroethane		ND	*	77	530
Trichlorofluoromethane		ND		10	110
1,1-Dichloroethene		ND		14	43
Methylene Chloride		ND		16	110
trans-1,2-Dichloroethene		ND		11	110
1,1-Dichloroethane		ND		25	110
2,2-Dichloropropane		ND		13	110
cis-1,2-Dichloroethene		ND		16	110
Chlorobromomethane		ND		13	110
Chloroform		ND		10	110
1,1,1-Trichloroethane		ND		10	43
Carbon tetrachloride		ND		8.0	43
1,1-Dichloropropene		ND		8.3	110
Benzene		ND		7.5	21
1,2-Dichloroethane		ND		22	110
Trichloroethene		46		8.0	43
1,2-Dichloropropane		ND		6.7	21
Dibromomethane		ND		19	110
Dichlorobromomethane		ND		7.5	110
cis-1,3-Dichloropropene		ND		7.5	110
Toluene		ND		20	110
trans-1,3-Dichloropropene		ND		7.5	110
1,1,2-Trichloroethane		ND		9.6	110
Tetrachloroethene		ND		19	67
1,3-Dichloropropane		ND		11	43
Chlorodibromomethane		ND		6.7	110
Ethylene Dibromide		ND		18	110
Chlorobenzene		ND		32	110
Ethylbenzene		ND		19	110
1,1,1,2-Tetrachloroethane		ND	*	10	110
1,1,2,2-Tetrachloroethane		ND		6.4	21
m-Xylene & p-Xylene		ND		40	110
o-Xylene		ND		19	110
Styrene		ND		8.5	110
Bromoform		ND		7.5	110
Isopropylbenzene		ND		16	110
Bromobenzene		ND		9.6	110
N-Propylbenzene		ND		18	110
1,2,3-Trichloropropane		ND		19	110

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-020**

Lab Sample ID: 580-3591-19

Date Sampled: 09/14/2006 1505

Client Matrix: Solid

% Moisture: 9.8

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001305.D

Dilution: 1.0

Initial Weight/Volume: 4.15 g

Date Analyzed: 09/25/2006 1547

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Chlorotoluene		ND		15	110
1,3,5-Trimethylbenzene		ND		16	110
4-Chlorotoluene		ND		9.3	110
tert-Butylbenzene		ND		9.1	110
1,2,4-Trimethylbenzene		ND		18	110
sec-Butylbenzene		ND		4.3	110
1,3-Dichlorobenzene		ND		11	110
4-Isopropyltoluene		ND		7.5	110
1,4-Dichlorobenzene		ND		5.3	110
n-Butylbenzene		ND		6.4	110
1,2-Dichlorobenzene		ND		9.1	110
1,2-Dibromo-3-Chloropropane		ND		24	110
1,2,4-Trichlorobenzene		ND		10	110
1,2,3-Trichlorobenzene		ND		13	110
Hexachlorobutadiene		ND		18	110
Naphthalene		ND		6.9	110
Surrogate		%Rec		Acceptance Limits	
Fluorobenzene (Surr)		104		75 - 125	
Toluene-d8 (Surr)		101		75 - 125	
Ethylbenzene-d10		104		75 - 125	
4-Bromofluorobenzene (Surr)		93		75 - 125	
Trifluorotoluene (Surr)		100		75 - 125	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-060**

Lab Sample ID: 580-3591-21

Date Sampled: 09/14/2006 1515

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001307.D

Dilution: 1.0

Initial Weight/Volume: 5.65 g

Date Analyzed: 09/25/2006 1611

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		11	81
Chloromethane		ND		15	81
Vinyl chloride		ND		11	32
Bromomethane		ND	*	57	410
Chloroethane		ND	*	59	410
Trichlorofluoromethane		ND		7.7	81
1,1-Dichloroethene		ND		11	32
Methylene Chloride		ND		12	81
trans-1,2-Dichloroethene		ND		8.7	81
1,1-Dichloroethane		ND		19	81
2,2-Dichloropropane		ND		9.5	81
cis-1,2-Dichloroethene		ND		12	81
Chlorobromomethane		ND		9.7	81
Chloroform		ND		7.7	81
1,1,1-Trichloroethane		ND		7.9	32
Carbon tetrachloride		ND		6.1	32
1,1-Dichloropropene		ND		6.3	81
Benzene		ND		5.7	16
1,2-Dichloroethane		ND		16	81
Trichloroethene		55		6.1	32
1,2-Dichloropropane		ND		5.1	16
Dibromomethane		ND		15	81
Dichlorobromomethane		ND		5.7	81
cis-1,3-Dichloropropene		ND		5.7	81
Toluene		ND		15	81
trans-1,3-Dichloropropene		ND		5.7	81
1,1,2-Trichloroethane		ND		7.3	81
Tetrachloroethene		ND		15	51
1,3-Dichloropropane		ND		8.5	32
Chlorodibromomethane		ND		5.1	81
Ethylene Dibromide		ND		13	81
Chlorobenzene		ND		24	81
Ethylbenzene		ND		15	81
1,1,1,2-Tetrachloroethane		ND	*	7.7	81
1,1,2,2-Tetrachloroethane		ND		4.9	16
m-Xylene & p-Xylene		ND		30	81
o-Xylene		ND		15	81
Styrene		ND		6.5	81
Bromoform		ND		5.7	81
Isopropylbenzene		ND		12	81
Bromobenzene		ND		7.3	81
N-Propylbenzene		ND		14	81
1,2,3-Trichloropropane		ND		14	81

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-060**

Lab Sample ID: 580-3591-21

Date Sampled: 09/14/2006 1515

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001307.D

Dilution: 1.0

Initial Weight/Volume: 5.65 g

Date Analyzed: 09/25/2006 1611

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Chlorotoluene		ND		12	81
1,3,5-Trimethylbenzene		ND		12	81
4-Chlorotoluene		ND		7.1	81
tert-Butylbenzene		ND		6.9	81
1,2,4-Trimethylbenzene		ND		14	81
sec-Butylbenzene		ND		3.2	81
1,3-Dichlorobenzene		ND		8.3	81
4-Isopropyltoluene		ND		5.7	81
1,4-Dichlorobenzene		ND		4.1	81
n-Butylbenzene		ND		4.9	81
1,2-Dichlorobenzene		ND		6.9	81
1,2-Dibromo-3-Chloropropane		ND		18	81
1,2,4-Trichlorobenzene		ND		7.9	81
1,2,3-Trichlorobenzene		ND		9.7	81
Hexachlorobutadiene		ND		13	81
Naphthalene		ND		5.3	81
Surrogate		%Rec		Acceptance Limits	
Fluorobenzene (Surr)		108		75 - 125	
Toluene-d8 (Surr)		103		75 - 125	
Ethylbenzene-d10		103		75 - 125	
4-Bromofluorobenzene (Surr)		91		75 - 125	
Trifluorotoluene (Surr)		92		75 - 125	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-W**

Lab Sample ID: 580-3591-23  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation:	5030B		Lab File ID: VB0001215.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	09/22/2006 1605		Final Weight/Volume: 5 mL
Date Prepared:	09/22/2006 1605		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dichlorodifluoromethane	ND		0.13	1.0
Chloromethane	ND		0.18	1.0
Vinyl chloride	6.0		0.18	1.0
Bromomethane	ND		0.23	1.0
Chloroethane	0.18	J	0.17	5.0
Trichlorofluoromethane	ND		0.088	1.0
1,1-Dichloroethene	0.11	J	0.098	1.0
Methylene Chloride	ND		0.090	1.0
trans-1,2-Dichloroethene	0.12	J	0.074	1.0
1,1-Dichloroethane	ND		0.11	1.0
2,2-Dichloropropane	ND		0.17	1.0
cis-1,2-Dichloroethene	5.0		0.079	1.0
Chlorobromomethane	ND		0.12	1.0
Chloroform	ND		0.067	1.0
1,1,1-Trichloroethane	ND		0.11	1.0
Carbon tetrachloride	ND		0.070	1.0
1,1-Dichloropropene	ND		0.080	1.0
Benzene	1.1		0.10	1.0
1,2-Dichloroethane	ND		0.20	1.0
Trichloroethene	2.4		0.074	1.0
1,2-Dichloropropane	ND		0.092	1.0
Dibromomethane	ND		0.080	1.0
Dichlorobromomethane	ND		0.076	1.0
cis-1,3-Dichloropropene	ND		0.064	1.0
Toluene	0.18	J	0.066	1.0
trans-1,3-Dichloropropene	ND		0.082	1.0
1,1,2-Trichloroethane	ND		0.076	1.0
Tetrachloroethene	ND		0.088	1.0
1,3-Dichloropropane	ND		0.10	1.0
Chlorodibromomethane	ND		0.11	1.0
Ethylene Dibromide	ND		0.076	1.0
Chlorobenzene	ND		0.057	1.0
Ethylbenzene	ND		0.085	1.0
1,1,1,2-Tetrachloroethane	ND		0.073	1.0
1,1,2,2-Tetrachloroethane	ND		0.11	1.0
m-Xylene & p-Xylene	ND		0.17	2.0
o-Xylene	ND		0.068	1.0
Styrene	ND		0.061	1.0
Bromoform	ND		0.076	1.0
Isopropylbenzene	ND		0.084	1.0
Bromobenzene	ND		0.079	1.0
N-Propylbenzene	ND		0.069	1.0
1,2,3-Trichloropropane	ND		0.081	1.0

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-W**

Lab Sample ID: 580-3591-23  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation: 5030B		Lab File ID: VB0001215.D
Dilution: 1.0		Initial Weight/Volume: 5 mL
Date Analyzed: 09/22/2006 1605		Final Weight/Volume: 5 mL
Date Prepared: 09/22/2006 1605		

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorotoluene	ND		0.060	1.0
1,3,5-Trimethylbenzene	ND		0.077	1.0
4-Chlorotoluene	ND		0.098	1.0
tert-Butylbenzene	ND		0.045	1.0
1,2,4-Trimethylbenzene	ND		0.086	1.0
sec-Butylbenzene	ND		0.035	1.0
1,3-Dichlorobenzene	ND		0.040	1.0
4-Isopropyltoluene	ND		0.077	1.0
1,4-Dichlorobenzene	ND		0.052	1.0
n-Butylbenzene	ND		0.098	1.0
1,2-Dichlorobenzene	ND		0.070	1.0
1,2-Dibromo-3-Chloropropane	ND		0.43	2.0
1,2,4-Trichlorobenzene	ND		0.046	1.0
1,2,3-Trichlorobenzene	ND		0.071	1.0
Hexachlorobutadiene	ND		0.14	1.0
Naphthalene	0.083	J	0.070	1.0
Surrogate	%Rec		Acceptance Limits	
Fluorobenzene (Surr)	106		80 - 120	
Toluene-d8 (Surr)	104		80 - 120	
Ethylbenzene-d10	103		80 - 120	
4-Bromofluorobenzene (Surr)	93		80 - 120	
Trifluorotoluene (Surr)	97		80 - 120	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-020**

Lab Sample ID: 580-3591-25

Date Sampled: 09/14/2006 1545

Client Matrix: Solid

% Moisture: 5.5

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001309.D

Dilution: 1.0

Initial Weight/Volume: 4.58 g

Date Analyzed: 09/25/2006 1635

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		13	92
Chloromethane		ND		17	92
Vinyl chloride		ND		12	37
Bromomethane		ND	*	65	460
Chloroethane		ND	*	67	460
Trichlorofluoromethane		ND		8.8	92
1,1-Dichloroethene		ND		12	37
Methylene Chloride		ND		14	92
trans-1,2-Dichloroethene		ND		9.9	92
1,1-Dichloroethane		ND		22	92
2,2-Dichloropropane		ND		11	92
cis-1,2-Dichloroethene		ND		14	92
Chlorobromomethane		ND		11	92
Chloroform		ND		8.8	92
1,1,1-Trichloroethane		ND		9.0	37
Carbon tetrachloride		ND		6.9	37
1,1-Dichloropropene		ND		7.2	92
Benzene		ND		6.5	18
1,2-Dichloroethane		ND		19	92
Trichloroethene		26	J	6.9	37
1,2-Dichloropropane		ND		5.8	18
Dibromomethane		ND		17	92
Dichlorobromomethane		ND		6.5	92
cis-1,3-Dichloropropene		ND		6.5	92
Toluene		ND		17	92
trans-1,3-Dichloropropene		ND		6.5	92
1,1,2-Trichloroethane		ND		8.3	92
Tetrachloroethene		ND		17	58
1,3-Dichloropropane		ND		9.7	37
Chlorodibromomethane		ND		5.8	92
Ethylene Dibromide		ND		15	92
Chlorobenzene		ND		28	92
Ethylbenzene		ND		17	92
1,1,1,2-Tetrachloroethane		ND	*	8.8	92
1,1,2,2-Tetrachloroethane		ND		5.5	18
m-Xylene & p-Xylene		ND		35	92
o-Xylene		ND		17	92
Styrene		ND		7.4	92
Bromoform		ND		6.5	92
Isopropylbenzene		ND		14	92
Bromobenzene		ND		8.3	92
N-Propylbenzene		ND		16	92
1,2,3-Trichloropropane		ND		16	92

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-020**

Lab Sample ID: 580-3591-25

Date Sampled: 09/14/2006 1545

Client Matrix: Solid

% Moisture: 5.5

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001309.D

Dilution: 1.0

Initial Weight/Volume: 4.58 g

Date Analyzed: 09/25/2006 1635

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Chlorotoluene		ND		13	92
1,3,5-Trimethylbenzene		ND		14	92
4-Chlorotoluene		ND		8.1	92
tert-Butylbenzene		ND		7.9	92
1,2,4-Trimethylbenzene		ND		16	92
sec-Butylbenzene		ND		3.7	92
1,3-Dichlorobenzene		ND		9.5	92
4-Isopropyltoluene		ND		6.5	92
1,4-Dichlorobenzene		ND		4.6	92
n-Butylbenzene		ND		5.5	92
1,2-Dichlorobenzene		ND		7.9	92
1,2-Dibromo-3-Chloropropane		ND		20	92
1,2,4-Trichlorobenzene		ND		9.0	92
1,2,3-Trichlorobenzene		ND		11	92
Hexachlorobutadiene		ND		15	92
Naphthalene		ND		6.0	92
Surrogate		%Rec		Acceptance Limits	
Fluorobenzene (Surr)		107		75 - 125	
Toluene-d8 (Surr)		103		75 - 125	
Ethylbenzene-d10		102		75 - 125	
4-Bromofluorobenzene (Surr)		88		75 - 125	
Trifluorotoluene (Surr)		97		75 - 125	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-060**

Lab Sample ID: 580-3591-27

Date Sampled: 09/14/2006 1600

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

## 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001311.D

Dilution: 1.0

Initial Weight/Volume: 5.84 g

Date Analyzed: 09/25/2006 1658

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		11	79
Chloromethane		ND		14	79
Vinyl chloride		ND		10	31
Bromomethane		ND	*	55	390
Chloroethane		ND	*	57	390
Trichlorofluoromethane		ND		7.5	79
1,1-Dichloroethene		ND		10	31
Methylene Chloride		ND		12	79
trans-1,2-Dichloroethene		ND		8.4	79
1,1-Dichloroethane		ND		19	79
2,2-Dichloropropane		ND		9.2	79
cis-1,2-Dichloroethene		ND		12	79
Chlorobromomethane		ND		9.4	79
Chloroform		ND		7.5	79
1,1,1-Trichloroethane		ND		7.7	31
Carbon tetrachloride		ND		5.9	31
1,1-Dichloropropene		ND		6.1	79
Benzene		ND		5.5	16
1,2-Dichloroethane		ND		16	79
Trichloroethene		ND		5.9	31
1,2-Dichloropropane		ND		4.9	16
Dibromomethane		ND		14	79
Dichlorobromomethane		ND		5.5	79
cis-1,3-Dichloropropene		ND		5.5	79
Toluene		ND		15	79
trans-1,3-Dichloropropene		ND		5.5	79
1,1,2-Trichloroethane		ND		7.1	79
Tetrachloroethene		ND		14	49
1,3-Dichloropropane		ND		8.2	31
Chlorodibromomethane		ND		4.9	79
Ethylene Dibromide		ND		13	79
Chlorobenzene		ND		24	79
Ethylbenzene		ND		14	79
1,1,1,2-Tetrachloroethane		ND	*	7.5	79
1,1,2,2-Tetrachloroethane		ND		4.7	16
m-Xylene & p-Xylene		ND		29	79
o-Xylene		ND		14	79
Styrene		ND		6.3	79
Bromoform		ND		5.5	79
Isopropylbenzene		ND		12	79
Bromobenzene		ND		7.1	79
N-Propylbenzene		ND		14	79
1,2,3-Trichloropropane		ND		14	79

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-060**

Lab Sample ID: 580-3591-27

Date Sampled: 09/14/2006 1600

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-11201

Instrument ID: SEA043

Preparation: 5035

Prep Batch: 580-11161

Lab File ID: VB0001311.D

Dilution: 1.0

Initial Weight/Volume: 5.84 g

Date Analyzed: 09/25/2006 1658

Final Weight/Volume: 400 mL

Date Prepared: 09/25/2006 0909

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Chlorotoluene		ND		11	79
1,3,5-Trimethylbenzene		ND		12	79
4-Chlorotoluene		ND		6.9	79
tert-Butylbenzene		ND		6.7	79
1,2,4-Trimethylbenzene		ND		14	79
sec-Butylbenzene		ND		3.1	79
1,3-Dichlorobenzene		ND		8.0	79
4-Isopropyltoluene		ND		5.5	79
1,4-Dichlorobenzene		ND		3.9	79
n-Butylbenzene		ND		4.7	79
1,2-Dichlorobenzene		ND		6.7	79
1,2-Dibromo-3-Chloropropane		ND		17	79
1,2,4-Trichlorobenzene		ND		7.7	79
1,2,3-Trichlorobenzene		ND		9.4	79
Hexachlorobutadiene		ND		13	79
Naphthalene		ND		5.1	79
Surrogate		%Rec		Acceptance Limits	
Fluorobenzene (Surr)		106		75 - 125	
Toluene-d8 (Surr)		101		75 - 125	
Ethylbenzene-d10		101		75 - 125	
4-Bromofluorobenzene (Surr)		92		75 - 125	
Trifluorotoluene (Surr)		92		75 - 125	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-W**

Lab Sample ID: 580-3591-29  
 Client Matrix: Water

Date Sampled: 09/14/2006 1610  
 Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation:	5030B		Lab File ID: VB0001217.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	09/22/2006 1629		Final Weight/Volume: 5 mL
Date Prepared:	09/22/2006 1629		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dichlorodifluoromethane	ND		0.13	1.0
Chloromethane	ND		0.18	1.0
Vinyl chloride	16		0.18	1.0
Bromomethane	ND		0.23	1.0
Chloroethane	ND		0.17	5.0
Trichlorofluoromethane	ND		0.088	1.0
1,1-Dichloroethene	ND		0.098	1.0
Methylene Chloride	ND		0.090	1.0
trans-1,2-Dichloroethene	0.12	J	0.074	1.0
1,1-Dichloroethane	ND		0.11	1.0
2,2-Dichloropropane	ND		0.17	1.0
cis-1,2-Dichloroethene	0.62	J	0.079	1.0
Chlorobromomethane	ND		0.12	1.0
Chloroform	ND		0.067	1.0
1,1,1-Trichloroethane	ND		0.11	1.0
Carbon tetrachloride	ND		0.070	1.0
1,1-Dichloropropene	ND		0.080	1.0
Benzene	1.5		0.10	1.0
1,2-Dichloroethane	ND		0.20	1.0
Trichloroethene	0.11	J	0.074	1.0
1,2-Dichloropropane	ND		0.092	1.0
Dibromomethane	ND		0.080	1.0
Dichlorobromomethane	ND		0.076	1.0
cis-1,3-Dichloropropene	ND		0.064	1.0
Toluene	0.20	J	0.066	1.0
trans-1,3-Dichloropropene	ND		0.082	1.0
1,1,2-Trichloroethane	ND		0.076	1.0
Tetrachloroethene	ND		0.088	1.0
1,3-Dichloropropane	ND		0.10	1.0
Chlorodibromomethane	ND		0.11	1.0
Ethylene Dibromide	ND		0.076	1.0
Chlorobenzene	ND		0.057	1.0
Ethylbenzene	ND		0.085	1.0
1,1,1,2-Tetrachloroethane	ND		0.073	1.0
1,1,2,2-Tetrachloroethane	ND		0.11	1.0
m-Xylene & p-Xylene	0.18	J	0.17	2.0
o-Xylene	0.081	J	0.068	1.0
Styrene	ND		0.061	1.0
Bromoform	ND		0.076	1.0
Isopropylbenzene	ND		0.084	1.0
Bromobenzene	ND		0.079	1.0
N-Propylbenzene	ND		0.069	1.0
1,2,3-Trichloropropane	ND		0.081	1.0

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-W**

Lab Sample ID: 580-3591-29  
Client Matrix: Water

Date Sampled: 09/14/2006 1610  
Date Received: 09/15/2006 1830

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-11150	Instrument ID: SEA043
Preparation:	5030B		Lab File ID: VB0001217.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	09/22/2006 1629		Final Weight/Volume: 5 mL
Date Prepared:	09/22/2006 1629		

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Chlorotoluene	ND		0.060	1.0
1,3,5-Trimethylbenzene	ND		0.077	1.0
4-Chlorotoluene	ND		0.098	1.0
tert-Butylbenzene	ND		0.045	1.0
1,2,4-Trimethylbenzene	0.099	J	0.086	1.0
sec-Butylbenzene	ND		0.035	1.0
1,3-Dichlorobenzene	ND		0.040	1.0
4-Isopropyltoluene	ND		0.077	1.0
1,4-Dichlorobenzene	ND		0.052	1.0
n-Butylbenzene	ND		0.098	1.0
1,2-Dichlorobenzene	ND		0.070	1.0
1,2-Dibromo-3-Chloropropane	ND		0.43	2.0
1,2,4-Trichlorobenzene	ND		0.046	1.0
1,2,3-Trichlorobenzene	ND		0.071	1.0
Hexachlorobutadiene	ND		0.14	1.0
Naphthalene	0.14	J	0.070	1.0
Surrogate	%Rec		Acceptance Limits	
Fluorobenzene (Surr)	107		80 - 120	
Toluene-d8 (Surr)	100		80 - 120	
Ethylbenzene-d10	101		80 - 120	
4-Bromofluorobenzene (Surr)	92		80 - 120	
Trifluorotoluene (Surr)	96		80 - 120	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-020**

Lab Sample ID: 580-3591-2

Date Sampled: 09/14/2006 1105

Client Matrix: Solid

% Moisture: 2.2

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11112	Instrument ID: SEA040
Preparation:	3550B	Prep Batch: 580-11062	Lab File ID: ak006168.D
Dilution:	1.0		Initial Weight/Volume: 10.7895 g
Date Analyzed:	09/20/2006 1458		Final Weight/Volume: 10 mL
Date Prepared:	09/20/2006 1316		Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		ND		26	95
Bis(2-chloroethyl)ether		ND		28	95
2-Chlorophenol		ND		22	95
1,3-Dichlorobenzene		ND		11	47
1,4-Dichlorobenzene		ND		7.2	47
Benzyl alcohol		ND		28	95
1,2-Dichlorobenzene		ND		16	47
2-Methylphenol		ND		27	95
Bis(2-chloroisopropyl) ether		ND		32	140
3 & 4 Methylphenol		ND		50	190
N-Nitrosodi-n-propylamine		ND		25	95
Hexachloroethane		ND		20	95
Nitrobenzene		ND		14	95
Isophorone		ND		25	95
2-Nitrophenol		ND		22	95
2,4-Dimethylphenol		ND		18	95
Benzoic acid		ND		790	2400
Bis(2-chloroethoxy)methane		ND		24	95
2,4-Dichlorophenol		ND		18	95
1,2,4-Trichlorobenzene		ND		9.4	47
4-Chloroaniline		ND		26	95
Hexachlorobutadiene		ND		12	47
4-Chloro-3-methylphenol		ND		21	95
Hexachlorocyclopentadiene		ND		24	95
2,4,6-Trichlorophenol		ND		31	140
2,4,5-Trichlorophenol		ND		22	95
2-Chloronaphthalene		ND		1.8	19
2-Nitroaniline		ND		18	95
Dimethyl phthalate		ND		7.3	95
2,6-Dinitrotoluene		ND		18	95
3-Nitroaniline		ND	*	27	95
2,4-Dinitrophenol		ND		190	950
4-Nitrophenol		ND		250	950
Dibenzofuran		ND		16	95
2,4-Dinitrotoluene		ND		13	95
Diethyl phthalate		ND		6.8	95
4-Chlorophenyl phenyl ether		ND		15	95
4-Nitroaniline		ND		18	95
4,6-Dinitro-2-methylphenol		ND		260	950
N-Nitrosodiphenylamine		ND		14	47
4-Bromophenyl phenyl ether		ND		9.5	95
Hexachlorobenzene		ND		10	47
Pentachlorophenol		ND		29	95

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-020**

Lab Sample ID: 580-3591-2

Date Sampled: 09/14/2006 1105

Client Matrix: Solid

% Moisture: 2.2

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006168.D

Dilution: 1.0

Initial Weight/Volume: 10.7895 g

Date Analyzed: 09/20/2006 1458

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		12	190
Butyl benzyl phthalate		ND		27	95
3,3'-Dichlorobenzidine		ND		8.6	190
Bis(2-ethylhexyl) phthalate		ND		230	1400
Di-n-octyl phthalate		ND		31	190
Carbazole		ND		31	140
1-Methylnaphthalene		ND		8.2	28
Surrogate		%Rec		Acceptance Limits	
2-Fluorophenol		90		36 - 145	
Phenol-d5		82		38 - 149	
Nitrobenzene-d5		82		38 - 141	
2-Fluorobiphenyl		94		42 - 140	
2,4,6-Tribromophenol		74		28 - 143	
Terphenyl-d14		100		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-020**

Lab Sample ID: 580-3591-2

Date Sampled: 09/14/2006 1105

Client Matrix: Solid

% Moisture: 2.2

Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C

Analysis Batch: 580-11113

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11017

Lab File ID: ak006185.D

Dilution: 1.0

Initial Weight/Volume: 10.7895 g

Date Analyzed: 09/20/2006 2141

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		0.75	J	0.52	4.7
2-Methylnaphthalene		0.65	J	0.56	4.7
1-Methylnaphthalene		0.82	J	0.69	4.7
Acenaphthylene		1.3	J	0.53	4.7
Acenaphthene		ND		0.53	4.7
Fluorene		1.1	J	0.55	4.7
Phenanthrene		6.0	B	0.66	4.7
Anthracene		1.0	J	0.46	4.7
Fluoranthene		4.1	J B	0.44	4.7
Pyrene		5.2	B	0.46	4.7
Benzo[a]anthracene		ND		0.71	4.7
Chrysene		ND		0.51	4.7
Benzo[fluoranthene]		5.0	J B	1.2	9.5
Benzo[a]pyrene		2.3	J B	0.49	4.7
Indeno[1,2,3-cd]pyrene		1.9	J B	1.3	4.7
Dibenz(a,h)anthracene		ND		1.3	4.7
Benzo[g,h,i]perylene		2.3	J B	1.5	4.7
Surrogate		%Rec		Acceptance Limits	
Nitrobenzene-d5		85		38 - 141	
2-Fluorobiphenyl		90		42 - 140	
Terphenyl-d14		99		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-060**

Lab Sample ID: 580-3591-4

Date Sampled: 09/14/2006 1115

Client Matrix: Solid

% Moisture: 13.6

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006171.D

Dilution: 1.0

Initial Weight/Volume: 10.7863 g

Date Analyzed: 09/20/2006 1611

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		ND		29	110
Bis(2-chloroethyl)ether		ND		32	110
2-Chlorophenol		ND		25	110
1,3-Dichlorobenzene		ND		13	54
1,4-Dichlorobenzene		ND		8.2	54
Benzyl alcohol		ND		32	110
1,2-Dichlorobenzene		ND		18	54
2-Methylphenol		ND		30	110
Bis(2-chloroisopropyl) ether		ND		36	160
3 & 4 Methylphenol		ND		57	210
N-Nitrosodi-n-propylamine		ND		28	110
Hexachloroethane		ND		23	110
Nitrobenzene		ND		16	110
Isophorone		ND		28	110
2-Nitrophenol		ND		25	110
2,4-Dimethylphenol		ND		20	110
Benzoic acid		ND		890	2700
Bis(2-chloroethoxy)methane		ND		27	110
2,4-Dichlorophenol		ND		20	110
1,2,4-Trichlorobenzene		ND		11	54
4-Chloroaniline		ND		29	110
Hexachlorobutadiene		ND		14	54
4-Chloro-3-methylphenol		ND		24	110
Hexachlorocyclopentadiene		ND		27	110
2,4,6-Trichlorophenol		ND		35	160
2,4,5-Trichlorophenol		ND		25	110
2-Chloronaphthalene		ND		2.0	21
2-Nitroaniline		ND		20	110
Dimethyl phthalate		ND		8.3	110
2,6-Dinitrotoluene		ND		20	110
3-Nitroaniline		ND	*	31	110
2,4-Dinitrophenol		ND		220	1100
4-Nitrophenol		ND		280	1100
Dibenzofuran		ND		18	110
2,4-Dinitrotoluene		ND		15	110
Diethyl phthalate		ND		7.7	110
4-Chlorophenyl phenyl ether		ND		17	110
4-Nitroaniline		ND		20	110
4,6-Dinitro-2-methylphenol		ND		290	1100
N-Nitrosodiphenylamine		ND		16	54
4-Bromophenyl phenyl ether		ND		11	110
Hexachlorobenzene		ND		12	54
Pentachlorophenol		ND		33	110

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-060**

Lab Sample ID: 580-3591-4

Date Sampled: 09/14/2006 1115

Client Matrix: Solid

% Moisture: 13.6

Date Received: 09/15/2006 1830

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## 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006171.D

Dilution: 1.0

Initial Weight/Volume: 10.7863 g

Date Analyzed: 09/20/2006 1611

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		14	210
Butyl benzyl phthalate		ND		31	110
3,3'-Dichlorobenzidine		ND		9.8	210
Bis(2-ethylhexyl) phthalate		ND		260	1600
Di-n-octyl phthalate		ND		35	210
Carbazole		ND		35	160
1-Methylnaphthalene		ND		9.3	32
Surrogate		%Rec		Acceptance Limits	
2-Fluorophenol		90		36 - 145	
Phenol-d5		84		38 - 149	
Nitrobenzene-d5		82		38 - 141	
2-Fluorobiphenyl		93		42 - 140	
2,4,6-Tribromophenol		75		28 - 143	
Terphenyl-d14		101		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-060**

Lab Sample ID: 580-3591-4

Date Sampled: 09/14/2006 1115

Client Matrix: Solid

% Moisture: 13.6

Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C

Analysis Batch: 580-11113

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11017

Lab File ID: ak006188.D

Dilution: 1.0

Initial Weight/Volume: 10.7863 g

Date Analyzed: 09/20/2006 2254

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		1.4	J	0.58	5.4
2-Methylnaphthalene		1.3	J	0.64	5.4
1-Methylnaphthalene		1.3	J	0.78	5.4
Acenaphthylene		1.6	J	0.60	5.4
Acenaphthene		1.4	J	0.60	5.4
Fluorene		1.5	J	0.63	5.4
Phenanthrene		1.6	J B	0.75	5.4
Anthracene		1.4	J	0.53	5.4
Fluoranthene		2.7	J B	0.50	5.4
Pyrene		3.2	J B	0.52	5.4
Benzo[a]anthracene		3.6	J B	0.80	5.4
Chrysene		3.5	J B	0.58	5.4
Benzo[fluoranthene]		5.8	J B	1.4	11
Benzo[a]pyrene		3.1	J B	0.55	5.4
Indeno[1,2,3-cd]pyrene		2.2	J B	1.5	5.4
Dibenz(a,h)anthracene		ND		1.5	5.4
Benzo[g,h,i]perylene		2.5	J B	1.7	5.4
Surrogate		%Rec		Acceptance Limits	
Nitrobenzene-d5		84		38 - 141	
2-Fluorobiphenyl		88		42 - 140	
Terphenyl-d14		95		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-W**

Lab Sample ID: 580-3591-6  
Client Matrix: Water

Date Sampled: 09/14/2006 1130  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-10994	Lab File ID: ak006131.D
Dilution:	1.0		Initial Weight/Volume: 975 mL
Date Analyzed:	09/19/2006 1524		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Phenol	ND		0.076	3.1
Bis(2-chloroethyl)ether	ND		0.18	2.1
2-Chlorophenol	ND		0.23	2.1
1,3-Dichlorobenzene	ND		0.11	2.1
1,4-Dichlorobenzene	ND		0.12	2.1
Benzyl alcohol	ND		0.13	2.1
1,2-Dichlorobenzene	ND		0.11	2.1
2-Methylphenol	ND		0.39	2.1
Bis(2-chloroisopropyl) ether	ND		0.090	2.1
3 & 4 Methylphenol	ND		0.17	4.1
N-Nitrosodi-n-propylamine	ND		0.21	2.1
Hexachloroethane	ND		0.13	3.1
Nitrobenzene	ND		0.077	2.1
Isophorone	ND		0.11	2.1
2-Nitrophenol	ND		0.22	2.1
2,4-Dimethylphenol	ND		0.18	10
Benzoic acid	ND		0.22	10
Bis(2-chloroethoxy)methane	ND		0.097	2.1
2,4-Dichlorophenol	ND		0.13	2.1
1,2,4-Trichlorobenzene	ND		0.10	2.1
Naphthalene	0.12	J	0.014	2.1
4-Chloroaniline	ND		0.19	2.1
Hexachlorobutadiene	ND		0.16	3.1
4-Chloro-3-methylphenol	ND		0.14	2.1
2-Methylnaphthalene	0.060	J	0.056	1.0
Hexachlorocyclopentadiene	ND		0.12	10
2,4,6-Trichlorophenol	ND		0.10	3.1
2,4,5-Trichlorophenol	ND		0.087	2.1
2-Chloronaphthalene	ND		0.031	0.31
2-Nitroaniline	ND		0.11	2.1
Dimethyl phthalate	ND		0.12	2.1
Acenaphthylene	ND		0.027	0.41
2,6-Dinitrotoluene	ND		0.14	2.1
3-Nitroaniline	ND		0.57	2.1
Acenaphthene	ND		0.012	0.51
2,4-Dinitrophenol	ND		0.59	26
4-Nitrophenol	ND		1.6	10
Dibenzofuran	ND		0.10	2.1
2,4-Dinitrotoluene	ND		0.12	2.1
Diethyl phthalate	0.17	J	0.095	2.1
4-Chlorophenyl phenyl ether	ND		0.12	2.1
Fluorene	ND		0.043	0.31
4-Nitroaniline	ND		0.18	3.1

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-W**

Lab Sample ID: 580-3591-6  
Client Matrix: Water

Date Sampled: 09/14/2006 1130  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-10994	Lab File ID: ak006131.D
Dilution:	1.0		Initial Weight/Volume: 975 mL
Date Analyzed:	09/19/2006 1524		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
4,6-Dinitro-2-methylphenol	ND		0.54	21
N-Nitrosodiphenylamine	ND		0.13	2.1
4-Bromophenyl phenyl ether	ND		0.10	2.1
Hexachlorobenzene	ND		0.084	2.1
Pentachlorophenol	ND		0.13	3.6
Phenanthrene	ND		0.025	0.41
Anthracene	ND		0.019	0.21
Di-n-butyl phthalate	0.40	J B	0.090	2.1
Fluoranthene	ND		0.028	0.26
Pyrene	ND		0.021	0.31
Butyl benzyl phthalate	1.3	J B	0.25	3.1
3,3'-Dichlorobenzidine	ND		1.6	10
Benzo[a]anthracene	ND		0.034	0.31
Chrysene	ND		0.046	0.21
Bis(2-ethylhexyl) phthalate	1.1	J B	0.33	15
Di-n-octyl phthalate	ND		0.18	2.1
Benzofluoranthene	ND		0.056	0.41
Benzo[a]pyrene	ND	*	0.028	0.21
Indeno[1,2,3-cd]pyrene	ND		0.052	0.31
Dibenz(a,h)anthracene	ND		0.047	0.31
Benzo[g,h,i]perylene	ND		0.062	0.31
Carbazole	ND		0.092	2.1
1-Methylnaphthalene	0.061	J	0.053	0.31
Surrogate	%Rec		Acceptance Limits	
2-Fluorophenol	40		10 - 120	
Phenol-d5	22		10 - 102	
Nitrobenzene-d5	90		34 - 146	
2-Fluorobiphenyl	97		35 - 143	
2,4,6-Tribromophenol	88		29 - 151	
Terphenyl-d14	102		35 - 166	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-W**

Lab Sample ID: 580-3591-6  
Client Matrix: Water

Date Sampled: 09/14/2006 1130  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method:	8270C	Analysis Batch: 580-11046	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-11009	Lab File ID: ak006142.D
Dilution:	1.0		Initial Weight/Volume: 975 mL
Date Analyzed:	09/19/2006 2004		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 1131		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	0.12	B	0.0062	0.10
2-Methylnaphthalene	0.063	J	0.0092	0.13
1-Methylnaphthalene	ND		0.033	0.10
Acenaphthylene	ND		0.0041	0.10
Acenaphthene	0.011	J B	0.0031	0.10
Fluorene	ND		0.0082	0.10
Phenanthrene	0.017	J B	0.0031	0.10
Anthracene	ND		0.0082	0.10
Fluoranthene	0.010	J	0.0092	0.10
Pyrene	ND		0.013	0.10
Benzo[a]anthracene	ND		0.0092	0.10
Chrysene	ND		0.0092	0.10
Benzofluoranthene	ND		0.032	0.21
Benzo[a]pyrene	ND		0.062	0.21
Indeno[1,2,3-cd]pyrene	ND		0.015	0.10
Dibenz(a,h)anthracene	ND		0.012	0.10
Benzo[g,h,i]perylene	ND		0.018	0.10
Surrogate	%Rec		Acceptance Limits	
Nitrobenzene-d5	90		34 - 146	
2-Fluorobiphenyl	86		35 - 143	
Terphenyl-d14	91		35 - 166	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-WDUP**

Lab Sample ID: 580-3591-7  
 Client Matrix: Water

Date Sampled: 09/14/2006 1140  
 Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-10994	Lab File ID: ak006132.D
Dilution:	1.0		Initial Weight/Volume: 930 mL
Date Analyzed:	09/19/2006 1548		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Phenol	ND		0.080	3.2
Bis(2-chloroethyl)ether	ND		0.19	2.2
2-Chlorophenol	ND		0.24	2.2
1,3-Dichlorobenzene	ND		0.12	2.2
1,4-Dichlorobenzene	ND		0.13	2.2
Benzyl alcohol	ND		0.14	2.2
1,2-Dichlorobenzene	ND		0.12	2.2
2-Methylphenol	ND		0.41	2.2
Bis(2-chloroisopropyl) ether	ND		0.095	2.2
3 & 4 Methylphenol	ND		0.18	4.3
N-Nitrosodi-n-propylamine	ND		0.22	2.2
Hexachloroethane	ND		0.14	3.2
Nitrobenzene	ND		0.081	2.2
Isophorone	ND		0.12	2.2
2-Nitrophenol	ND		0.23	2.2
2,4-Dimethylphenol	ND		0.19	11
Benzoic acid	ND		0.23	11
Bis(2-chloroethoxy)methane	ND		0.10	2.2
2,4-Dichlorophenol	ND		0.14	2.2
1,2,4-Trichlorobenzene	ND		0.11	2.2
Naphthalene	0.10	J	0.015	2.2
4-Chloroaniline	ND		0.20	2.2
Hexachlorobutadiene	ND		0.17	3.2
4-Chloro-3-methylphenol	ND		0.15	2.2
2-Methylnaphthalene	ND		0.059	1.1
Hexachlorocyclopentadiene	ND		0.13	11
2,4,6-Trichlorophenol	ND		0.11	3.2
2,4,5-Trichlorophenol	ND		0.091	2.2
2-Chloronaphthalene	ND		0.032	0.32
2-Nitroaniline	ND		0.12	2.2
Dimethyl phthalate	ND		0.13	2.2
Acenaphthylene	ND		0.028	0.43
2,6-Dinitrotoluene	ND		0.15	2.2
3-Nitroaniline	ND		0.60	2.2
Acenaphthene	ND		0.013	0.54
2,4-Dinitrophenol	ND		0.62	27
4-Nitrophenol	ND		1.7	11
Dibenzofuran	ND		0.11	2.2
2,4-Dinitrotoluene	ND		0.13	2.2
Diethyl phthalate	ND		0.10	2.2
4-Chlorophenyl phenyl ether	ND		0.13	2.2
Fluorene	ND		0.045	0.32
4-Nitroaniline	ND		0.19	3.2

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-WDUP**

Lab Sample ID: 580-3591-7  
Client Matrix: Water

Date Sampled: 09/14/2006 1140  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation: 3510C	Prep Batch: 580-10994	Lab File ID: ak006132.D
Dilution: 1.0		Initial Weight/Volume: 930 mL
Date Analyzed: 09/19/2006 1548		Final Weight/Volume: 10 mL
Date Prepared: 09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
4,6-Dinitro-2-methylphenol	ND		0.57	22
N-Nitrosodiphenylamine	ND		0.14	2.2
4-Bromophenyl phenyl ether	ND		0.11	2.2
Hexachlorobenzene	ND		0.088	2.2
Pentachlorophenol	ND		0.14	3.8
Phenanthrene	ND		0.026	0.43
Anthracene	ND		0.020	0.22
Di-n-butyl phthalate	0.35	J B	0.095	2.2
Fluoranthene	ND		0.029	0.27
Pyrene	ND		0.022	0.32
Butyl benzyl phthalate	1.2	J B	0.26	3.2
3,3'-Dichlorobenzidine	ND		1.7	11
Benzo[a]anthracene	ND		0.035	0.32
Chrysene	ND		0.048	0.22
Bis(2-ethylhexyl) phthalate	1.1	J B	0.34	16
Di-n-octyl phthalate	ND		0.19	2.2
Benzofluoranthene	ND		0.059	0.43
Benzo[a]pyrene	ND	*	0.029	0.22
Indeno[1,2,3-cd]pyrene	ND		0.055	0.32
Dibenz(a,h)anthracene	ND		0.049	0.32
Benzo[g,h,i]perylene	ND		0.065	0.32
Carbazole	ND		0.097	2.2
1-Methylnaphthalene	ND		0.056	0.32
Surrogate	%Rec		Acceptance Limits	
2-Fluorophenol	39		10 - 120	
Phenol-d5	22		10 - 102	
Nitrobenzene-d5	89		34 - 146	
2-Fluorobiphenyl	96		35 - 143	
2,4,6-Tribromophenol	82		29 - 151	
Terphenyl-d14	104		35 - 166	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-WDUP**

Lab Sample ID: 580-3591-7  
Client Matrix: Water

Date Sampled: 09/14/2006 1140  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method:	8270C	Analysis Batch: 580-11046	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-11009	Lab File ID: ak006143.D
Dilution:	1.0		Initial Weight/Volume: 930 mL
Date Analyzed:	09/19/2006 2029		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 1131		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	0.11	B	0.0065	0.11
2-Methylnaphthalene	0.063	J	0.0097	0.14
1-Methylnaphthalene	ND		0.034	0.11
Acenaphthylene	ND		0.0043	0.11
Acenaphthene	0.014	J B	0.0032	0.11
Fluorene	ND		0.0086	0.11
Phenanthrene	0.021	J B	0.0032	0.11
Anthracene	ND		0.0086	0.11
Fluoranthene	0.016	J	0.0097	0.11
Pyrene	0.022	J	0.014	0.11
Benzo[a]anthracene	0.0099	J B	0.0097	0.11
Chrysene	ND		0.0097	0.11
Benzofluoranthene	ND		0.033	0.22
Benzo[a]pyrene	ND		0.065	0.22
Indeno[1,2,3-cd]pyrene	ND		0.016	0.11
Dibenz(a,h)anthracene	ND		0.013	0.11
Benzo[g,h,i]perylene	ND		0.019	0.11
Surrogate	%Rec		Acceptance Limits	
Nitrobenzene-d5	90		34 - 146	
2-Fluorobiphenyl	87		35 - 143	
Terphenyl-d14	92		35 - 166	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-040**

Lab Sample ID: 580-3591-8

Date Sampled: 09/14/2006 1240

Client Matrix: Solid

% Moisture: 10.7

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11112	Instrument ID: SEA040
Preparation:	3550B	Prep Batch: 580-11062	Lab File ID: ak006172.D
Dilution:	1.0		Initial Weight/Volume: 10.0774 g
Date Analyzed:	09/20/2006 1635		Final Weight/Volume: 10 mL
Date Prepared:	09/20/2006 1316		Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		ND		30	110
Bis(2-chloroethyl)ether		ND		33	110
2-Chlorophenol		ND		26	110
1,3-Dichlorobenzene		ND		13	56
1,4-Dichlorobenzene		ND		8.4	56
Benzyl alcohol		100	J	33	110
1,2-Dichlorobenzene		ND		19	56
2-Methylphenol		ND		31	110
Bis(2-chloroisopropyl) ether		ND		38	170
3 & 4 Methylphenol		ND		59	220
N-Nitrosodi-n-propylamine		ND		29	110
Hexachloroethane		ND		23	110
Nitrobenzene		ND		17	110
Isophorone		ND		29	110
2-Nitrophenol		ND		26	110
2,4-Dimethylphenol		ND		21	110
Benzoic acid		ND		920	2800
Bis(2-chloroethoxy)methane		ND		28	110
2,4-Dichlorophenol		ND		21	110
1,2,4-Trichlorobenzene		ND		11	56
4-Chloroaniline		ND		30	110
Hexachlorobutadiene		ND		14	56
4-Chloro-3-methylphenol		ND		24	110
Hexachlorocyclopentadiene		ND		28	110
2,4,6-Trichlorophenol		ND		37	170
2,4,5-Trichlorophenol		ND		26	110
2-Chloronaphthalene		ND		2.1	22
2-Nitroaniline		ND		21	110
Dimethyl phthalate		ND		8.6	110
2,6-Dinitrotoluene		ND		21	110
3-Nitroaniline		ND	*	32	110
2,4-Dinitrophenol		ND		230	1100
4-Nitrophenol		ND		290	1100
Dibenzofuran		ND		19	110
2,4-Dinitrotoluene		ND		16	110
Diethyl phthalate		ND		8.0	110
4-Chlorophenyl phenyl ether		ND		18	110
4-Nitroaniline		ND		21	110
4,6-Dinitro-2-methylphenol		ND		300	1100
N-Nitrosodiphenylamine		ND		17	56
4-Bromophenyl phenyl ether		ND		11	110
Hexachlorobenzene		ND		12	56
Pentachlorophenol		ND		34	110

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-040**

Lab Sample ID: 580-3591-8

Date Sampled: 09/14/2006 1240

Client Matrix: Solid

% Moisture: 10.7

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006172.D

Dilution: 1.0

Initial Weight/Volume: 10.0774 g

Date Analyzed: 09/20/2006 1635

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		14	220
3,3'-Dichlorobenzidine		ND		10	220
Bis(2-ethylhexyl) phthalate		2600		270	1700
Di-n-octyl phthalate		160	J	37	220
Carbazole		ND		37	170
1-Methylnaphthalene		ND		9.7	33
Surrogate		%Rec		Acceptance Limits	
2-Fluorophenol		49		36 - 145	
Phenol-d5		78		38 - 149	
Nitrobenzene-d5		82		38 - 141	
2-Fluorobiphenyl		94		42 - 140	
2,4,6-Tribromophenol		23		28 - 143	
Terphenyl-d14		103		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-040**

Lab Sample ID: 580-3591-8

Date Sampled: 09/14/2006 1240

Client Matrix: Solid

% Moisture: 10.7

Date Received: 09/15/2006 1830

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### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006239.D

Dilution: 2.0

Initial Weight/Volume: 10.0774 g

Date Analyzed: 09/22/2006 1206

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Butyl benzyl phthalate		5100		64	220

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-040**

Lab Sample ID: 580-3591-8

Date Sampled: 09/14/2006 1240

Client Matrix: Solid

% Moisture: 10.7

Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C

Analysis Batch: 580-11113

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11017

Lab File ID: ak006189.D

Dilution: 1.0

Initial Weight/Volume: 10.0774 g

Date Analyzed: 09/20/2006 2319

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		0.96	J	0.60	5.6
2-Methylnaphthalene		0.68	J	0.66	5.6
1-Methylnaphthalene		ND		0.81	5.6
Acenaphthylene		ND		0.62	5.6
Acenaphthene		ND		0.62	5.6
Fluorene		ND		0.65	5.6
Phenanthrene		2.5	J B	0.78	5.6
Anthracene		0.57	J	0.54	5.6
Fluoranthene		5.2	J B	0.52	5.6
Pyrene		4.7	J B	0.54	5.6
Benzo[a]anthracene		ND		0.83	5.6
Chrysene		3.1	J B	0.60	5.6
Benzo[fluoranthene]		6.5	J B	1.4	11
Benzo[a]pyrene		2.5	J B	0.57	5.6
Indeno[1,2,3-cd]pyrene		2.1	J B	1.6	5.6
Dibenz(a,h)anthracene		ND		1.6	5.6
Benzo[g,h,i]perylene		2.6	J B	1.8	5.6
Surrogate		%Rec		Acceptance Limits	
Nitrobenzene-d5		86		38 - 141	
2-Fluorobiphenyl		91		42 - 140	
Terphenyl-d14		97		42 - 151	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-060**

Lab Sample ID: 580-3591-9

Date Sampled: 09/14/2006 1245

Client Matrix: Solid

% Moisture: 17.3

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006173.D

Dilution: 1.0

Initial Weight/Volume: 10.4411 g

Date Analyzed: 09/20/2006 1700

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		ND		31	120
Bis(2-chloroethyl)ether		ND		35	120
2-Chlorophenol		ND		27	120
1,3-Dichlorobenzene		ND		14	58
1,4-Dichlorobenzene		ND		8.8	58
Benzyl alcohol		ND		35	120
1,2-Dichlorobenzene		ND		20	58
2-Methylphenol		ND		32	120
Bis(2-chloroisopropyl) ether		ND		39	170
3 & 4 Methylphenol		ND		61	230
N-Nitrosodi-n-propylamine		ND		30	120
Hexachloroethane		ND		24	120
Nitrobenzene		ND		17	120
Isophorone		ND		30	120
2-Nitrophenol		ND		27	120
2,4-Dimethylphenol		ND		22	120
Benzoic acid		ND		960	2900
Bis(2-chloroethoxy)methane		ND		29	120
2,4-Dichlorophenol		ND		22	120
1,2,4-Trichlorobenzene		ND		11	58
4-Chloroaniline		ND		31	120
Hexachlorobutadiene		ND		15	58
4-Chloro-3-methylphenol		ND		25	120
Hexachlorocyclopentadiene		ND		29	120
2,4,6-Trichlorophenol		ND		38	170
2,4,5-Trichlorophenol		ND		27	120
2-Chloronaphthalene		ND		2.2	23
2-Nitroaniline		ND		22	120
Dimethyl phthalate		ND		8.9	120
2,6-Dinitrotoluene		ND		22	120
3-Nitroaniline		ND	*	34	120
2,4-Dinitrophenol		ND		240	1200
4-Nitrophenol		ND		300	1200
Dibenzofuran		ND		20	120
2,4-Dinitrotoluene		ND		16	120
Diethyl phthalate		ND		8.3	120
4-Chlorophenyl phenyl ether		ND		19	120
4-Nitroaniline		ND		22	120
4,6-Dinitro-2-methylphenol		ND		310	1200
N-Nitrosodiphenylamine		ND		17	58
4-Bromophenyl phenyl ether		ND		12	120
Hexachlorobenzene		ND		13	58
Pentachlorophenol		ND		36	120

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-060**

Lab Sample ID: 580-3591-9

Date Sampled: 09/14/2006 1245

Client Matrix: Solid

% Moisture: 17.3

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006173.D

Dilution: 1.0

Initial Weight/Volume: 10.4411 g

Date Analyzed: 09/20/2006 1700

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		15	230
Butyl benzyl phthalate		97	J	34	120
3,3'-Dichlorobenzidine		ND		11	230
Bis(2-ethylhexyl) phthalate		ND		280	1700
Di-n-octyl phthalate		ND		38	230
Carbazole		ND		38	170
1-Methylnaphthalene		ND		10	35
Surrogate		%Rec		Acceptance Limits	
2-Fluorophenol		87		36 - 145	
Phenol-d5		80		38 - 149	
Nitrobenzene-d5		81		38 - 141	
2-Fluorobiphenyl		92		42 - 140	
2,4,6-Tribromophenol		72		28 - 143	
Terphenyl-d14		97		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-060**

Lab Sample ID: 580-3591-9

Date Sampled: 09/14/2006 1245

Client Matrix: Solid

% Moisture: 17.3

Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C

Analysis Batch: 580-11113

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11017

Lab File ID: ak006190.D

Dilution: 1.0

Initial Weight/Volume: 10.4411 g

Date Analyzed: 09/20/2006 2343

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		ND		0.63	5.8
2-Methylnaphthalene		ND		0.69	5.8
1-Methylnaphthalene		ND		0.85	5.8
Acenaphthylene		ND		0.65	5.8
Acenaphthene		ND		0.65	5.8
Fluorene		ND		0.68	5.8
Phenanthrene		ND		0.81	5.8
Anthracene		ND		0.57	5.8
Fluoranthene		ND		0.54	5.8
Pyrene		ND		0.56	5.8
Benzo[a]anthracene		1.1	J B	0.87	5.8
Chrysene		0.74	J B	0.62	5.8
Benzo[fluoranthene]		ND		1.5	12
Benzo[a]pyrene		ND		0.60	5.8
Indeno[1,2,3-cd]pyrene		ND		1.6	5.8
Dibenz(a,h)anthracene		ND		1.6	5.8
Benzo[g,h,i]perylene		ND		1.9	5.8
Surrogate		%Rec		Acceptance Limits	
Nitrobenzene-d5		77		38 - 141	
2-Fluorobiphenyl		87		42 - 140	
Terphenyl-d14		95		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-W**

Lab Sample ID: 580-3591-11  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-10994	Lab File ID: ak006133.D
Dilution:	1.0		Initial Weight/Volume: 980 mL
Date Analyzed:	09/19/2006 1613		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Phenol	ND		0.076	3.1
Bis(2-chloroethyl)ether	ND		0.18	2.0
2-Chlorophenol	ND		0.22	2.0
1,3-Dichlorobenzene	ND		0.11	2.0
1,4-Dichlorobenzene	ND		0.12	2.0
Benzyl alcohol	ND		0.13	2.0
1,2-Dichlorobenzene	ND		0.11	2.0
2-Methylphenol	ND		0.39	2.0
Bis(2-chloroisopropyl) ether	ND		0.090	2.0
3 & 4 Methylphenol	ND		0.17	4.1
N-Nitrosodi-n-propylamine	ND		0.20	2.0
Hexachloroethane	ND		0.13	3.1
Nitrobenzene	ND		0.077	2.0
Isophorone	ND		0.11	2.0
2-Nitrophenol	ND		0.21	2.0
2,4-Dimethylphenol	ND		0.18	10
Benzoic acid	ND		0.21	10
Bis(2-chloroethoxy)methane	ND		0.097	2.0
2,4-Dichlorophenol	ND		0.13	2.0
1,2,4-Trichlorobenzene	ND		0.10	2.0
Naphthalene	0.11	J	0.014	2.0
4-Chloroaniline	ND		0.19	2.0
Hexachlorobutadiene	ND		0.16	3.1
4-Chloro-3-methylphenol	ND		0.14	2.0
2-Methylnaphthalene	ND		0.056	1.0
Hexachlorocyclopentadiene	ND		0.12	10
2,4,6-Trichlorophenol	ND		0.10	3.1
2,4,5-Trichlorophenol	ND		0.087	2.0
2-Chloronaphthalene	ND		0.031	0.31
2-Nitroaniline	ND		0.11	2.0
Dimethyl phthalate	ND		0.12	2.0
Acenaphthylene	ND		0.027	0.41
2,6-Dinitrotoluene	ND		0.14	2.0
3-Nitroaniline	ND		0.57	2.0
Acenaphthene	ND		0.012	0.51
2,4-Dinitrophenol	ND		0.59	26
4-Nitrophenol	ND		1.6	10
Dibenzofuran	ND		0.10	2.0
2,4-Dinitrotoluene	ND		0.12	2.0
Diethyl phthalate	0.095	J	0.095	2.0
4-Chlorophenyl phenyl ether	ND		0.12	2.0
Fluorene	ND		0.043	0.31
4-Nitroaniline	ND		0.18	3.1

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-W**

Lab Sample ID: 580-3591-11  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-10994	Lab File ID: ak006133.D
Dilution:	1.0		Initial Weight/Volume: 980 mL
Date Analyzed:	09/19/2006 1613		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
4,6-Dinitro-2-methylphenol	ND		0.54	20
N-Nitrosodiphenylamine	ND		0.13	2.0
4-Bromophenyl phenyl ether	ND		0.10	2.0
Hexachlorobenzene	ND		0.084	2.0
Pentachlorophenol	ND		0.13	3.6
Phenanthrene	ND		0.024	0.41
Anthracene	ND		0.019	0.20
Di-n-butyl phthalate	0.46	J B	0.090	2.0
Fluoranthene	ND		0.028	0.26
Pyrene	ND		0.020	0.31
Butyl benzyl phthalate	1.2	J B	0.24	3.1
3,3'-Dichlorobenzidine	ND		1.6	10
Benzo[a]anthracene	ND		0.034	0.31
Chrysene	ND		0.046	0.20
Bis(2-ethylhexyl) phthalate	1.0	J B	0.33	15
Di-n-octyl phthalate	ND		0.18	2.0
Benzofluoranthene	ND		0.056	0.41
Benzo[a]pyrene	ND	*	0.028	0.20
Indeno[1,2,3-cd]pyrene	ND		0.052	0.31
Dibenz(a,h)anthracene	ND		0.047	0.31
Benzo[g,h,i]perylene	ND		0.061	0.31
Carbazole	ND		0.092	2.0
1-Methylnaphthalene	ND		0.053	0.31
Surrogate	%Rec		Acceptance Limits	
2-Fluorophenol	37		10 - 120	
Phenol-d5	21		10 - 102	
Nitrobenzene-d5	91		34 - 146	
2-Fluorobiphenyl	100		35 - 143	
2,4,6-Tribromophenol	86		29 - 151	
Terphenyl-d14	107		35 - 166	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-W**

Lab Sample ID: 580-3591-11  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method:	8270C	Analysis Batch: 580-11046	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-11009	Lab File ID: ak006144.D
Dilution:	1.0		Initial Weight/Volume: 980 mL
Date Analyzed:	09/19/2006 2053		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 1131		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	0.12	B	0.0061	0.10
2-Methylnaphthalene	0.068	J	0.0092	0.13
1-Methylnaphthalene	ND		0.033	0.10
Acenaphthylene	ND		0.0041	0.10
Acenaphthene	0.014	J B	0.0031	0.10
Fluorene	ND		0.0082	0.10
Phenanthrene	0.017	J B	0.0031	0.10
Anthracene	ND		0.0082	0.10
Fluoranthene	ND		0.0092	0.10
Pyrene	ND		0.013	0.10
Benzo[a]anthracene	ND		0.0092	0.10
Chrysene	ND		0.0092	0.10
Benzo[fluoranthene]	ND		0.032	0.20
Benzo[a]pyrene	ND		0.061	0.20
Indeno[1,2,3-cd]pyrene	ND		0.015	0.10
Dibenz(a,h)anthracene	ND		0.012	0.10
Benzo[g,h,i]perylene	ND		0.018	0.10
Surrogate	%Rec		Acceptance Limits	
Nitrobenzene-d5	90		34 - 146	
2-Fluorobiphenyl	88		35 - 143	
Terphenyl-d14	92		35 - 166	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-020**

Lab Sample ID: 580-3591-13

Date Sampled: 09/14/2006 1405

Client Matrix: Solid

% Moisture: 10.5

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006174.D

Dilution: 1.0

Initial Weight/Volume: 10.9354 g

Date Analyzed: 09/20/2006 1724

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		ND		28	100
Bis(2-chloroethyl)ether		ND		31	100
2-Chlorophenol		ND		24	100
1,3-Dichlorobenzene		ND		12	51
1,4-Dichlorobenzene		ND		7.8	51
Benzyl alcohol		ND		31	100
1,2-Dichlorobenzene		ND		17	51
2-Methylphenol		ND		29	100
Bis(2-chloroisopropyl) ether		ND		35	150
3 & 4 Methylphenol		ND		54	200
N-Nitrosodi-n-propylamine		ND		27	100
Hexachloroethane		ND		21	100
Nitrobenzene		ND		15	100
Isophorone		ND		27	100
2-Nitrophenol		ND		24	100
2,4-Dimethylphenol		ND		19	100
Benzoic acid		ND		850	2600
Bis(2-chloroethoxy)methane		ND		26	100
2,4-Dichlorophenol		ND		19	100
1,2,4-Trichlorobenzene		ND		10	51
4-Chloroaniline		ND		28	100
Hexachlorobutadiene		ND		13	51
4-Chloro-3-methylphenol		ND		22	100
Hexachlorocyclopentadiene		ND		26	100
2,4,6-Trichlorophenol		ND		34	150
2,4,5-Trichlorophenol		ND		24	100
2-Chloronaphthalene		ND		1.9	20
2-Nitroaniline		ND		19	100
Dimethyl phthalate		ND		7.9	100
2,6-Dinitrotoluene		ND		19	100
3-Nitroaniline		ND	*	30	100
2,4-Dinitrophenol		ND		210	1000
4-Nitrophenol		ND		270	1000
Dibenzofuran		ND		17	100
2,4-Dinitrotoluene		ND		14	100
Diethyl phthalate		ND		7.4	100
4-Chlorophenyl phenyl ether		ND		16	100
4-Nitroaniline		ND		19	100
4,6-Dinitro-2-methylphenol		ND		280	1000
N-Nitrosodiphenylamine		ND		15	51
4-Bromophenyl phenyl ether		ND		10	100
Hexachlorobenzene		ND		11	51
Pentachlorophenol		ND		32	100

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-020**

Lab Sample ID: 580-3591-13

Date Sampled: 09/14/2006 1405

Client Matrix: Solid

% Moisture: 10.5

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006174.D

Dilution: 1.0

Initial Weight/Volume: 10.9354 g

Date Analyzed: 09/20/2006 1724

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		13	200
Butyl benzyl phthalate		ND		30	100
3,3'-Dichlorobenzidine		ND		9.3	200
Bis(2-ethylhexyl) phthalate		ND		250	1500
Di-n-octyl phthalate		ND		34	200
Carbazole		41	J	34	150
1-Methylnaphthalene		ND		8.9	31
Surrogate		%Rec		Acceptance Limits	
2-Fluorophenol		83		36 - 145	
Phenol-d5		79		38 - 149	
Nitrobenzene-d5		81		38 - 141	
2-Fluorobiphenyl		91		42 - 140	
2,4,6-Tribromophenol		69		28 - 143	
Terphenyl-d14		98		42 - 151	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-020**

Lab Sample ID: 580-3591-13

Date Sampled: 09/14/2006 1405

Client Matrix: Solid

% Moisture: 10.5

Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C

Analysis Batch: 580-11113

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11017

Lab File ID: ak006191.D

Dilution: 1.0

Initial Weight/Volume: 10.9354 g

Date Analyzed: 09/21/2006 0008

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		12		0.56	5.1
2-Methylnaphthalene		11		0.60	5.1
1-Methylnaphthalene		11		0.75	5.1
Acenaphthylene		2.7	J	0.57	5.1
Acenaphthene		8.9		0.57	5.1
Fluorene		3.0	J	0.60	5.1
Phenanthrene		140	B	0.71	5.1
Anthracene		21		0.50	5.1
Fluoranthene		620	B	0.47	5.1
Pyrene		550	B	0.49	5.1
Benzo[a]anthracene		410	B	0.76	5.1
Chrysene		430	B	0.55	5.1
Benzo[fluoranthene]		1000	B	1.3	10
Benzo[a]pyrene		480	B	0.53	5.1
Indeno[1,2,3-cd]pyrene		420	B	1.5	5.1
Dibenz(a,h)anthracene		110		1.4	5.1
Benzo[g,h,i]perylene		480	B	1.6	5.1
Surrogate		%Rec		Acceptance Limits	
Nitrobenzene-d5		77		38 - 141	
2-Fluorobiphenyl		85		42 - 140	
Terphenyl-d14		93		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-060**

Lab Sample ID: 580-3591-15

Date Sampled: 09/14/2006 1415

Client Matrix: Solid

% Moisture: 14.7

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11112	Instrument ID: SEA040
Preparation:	3550B	Prep Batch: 580-11062	Lab File ID: ak006175.D
Dilution:	1.0		Initial Weight/Volume: 10.3068 g
Date Analyzed:	09/20/2006 1748		Final Weight/Volume: 10 mL
Date Prepared:	09/20/2006 1316		Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		ND		31	110
Bis(2-chloroethyl)ether		ND		34	110
2-Chlorophenol		ND		26	110
1,3-Dichlorobenzene		ND		14	57
1,4-Dichlorobenzene		ND		8.6	57
Benzyl alcohol		ND		34	110
1,2-Dichlorobenzene		ND		19	57
2-Methylphenol		ND		32	110
Bis(2-chloroisopropyl) ether		ND		39	170
3 & 4 Methylphenol		ND		60	230
N-Nitrosodi-n-propylamine		ND		30	110
Hexachloroethane		ND		24	110
Nitrobenzene		ND		17	110
Isophorone		ND		30	110
2-Nitrophenol		ND		26	110
2,4-Dimethylphenol		ND		22	110
Benzoic acid		ND		940	2800
Bis(2-chloroethoxy)methane		ND		28	110
2,4-Dichlorophenol		ND		22	110
1,2,4-Trichlorobenzene		ND		11	57
4-Chloroaniline		ND		31	110
Hexachlorobutadiene		ND		15	57
4-Chloro-3-methylphenol		ND		25	110
Hexachlorocyclopentadiene		ND		28	110
2,4,6-Trichlorophenol		ND		38	170
2,4,5-Trichlorophenol		ND		26	110
2-Chloronaphthalene		ND		2.2	23
2-Nitroaniline		ND		22	110
Dimethyl phthalate		ND		8.8	110
2,6-Dinitrotoluene		ND		22	110
3-Nitroaniline		ND	*	33	110
2,4-Dinitrophenol		ND		230	1100
4-Nitrophenol		ND		300	1100
Dibenzofuran		ND		19	110
2,4-Dinitrotoluene		ND		16	110
Diethyl phthalate		ND		8.2	110
4-Chlorophenyl phenyl ether		ND		18	110
4-Nitroaniline		ND		22	110
4,6-Dinitro-2-methylphenol		ND		310	1100
N-Nitrosodiphenylamine		ND		17	57
4-Bromophenyl phenyl ether		ND		11	110
Hexachlorobenzene		ND		13	57
Pentachlorophenol		ND		35	110

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-060**

Lab Sample ID: 580-3591-15

Date Sampled: 09/14/2006 1415

Client Matrix: Solid

% Moisture: 14.7

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006175.D

Dilution: 1.0

Initial Weight/Volume: 10.3068 g

Date Analyzed: 09/20/2006 1748

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		15	230
Butyl benzyl phthalate		ND		33	110
3,3'-Dichlorobenzidine		ND		10	230
Bis(2-ethylhexyl) phthalate		ND		270	1700
Di-n-octyl phthalate		ND		38	230
Carbazole		ND		38	170
1-Methylnaphthalene		ND		9.9	34
Surrogate		%Rec		Acceptance Limits	
2-Fluorophenol		87		36 - 145	
Phenol-d5		83		38 - 149	
Nitrobenzene-d5		80		38 - 141	
2-Fluorobiphenyl		92		42 - 140	
2,4,6-Tribromophenol		76		28 - 143	
Terphenyl-d14		98		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-060**

Lab Sample ID: 580-3591-15

Date Sampled: 09/14/2006 1415

Client Matrix: Solid

% Moisture: 14.7

Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C

Analysis Batch: 580-11113

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11017

Lab File ID: ak006192.D

Dilution: 1.0

Initial Weight/Volume: 10.3068 g

Date Analyzed: 09/21/2006 0032

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		0.87	J	0.62	5.7
2-Methylnaphthalene		ND		0.67	5.7
1-Methylnaphthalene		ND		0.83	5.7
Acenaphthylene		ND		0.64	5.7
Acenaphthene		ND		0.64	5.7
Fluorene		ND		0.66	5.7
Phenanthrene		3.4	J B	0.79	5.7
Anthracene		4.1	J	0.56	5.7
Fluoranthene		7.6	B	0.53	5.7
Pyrene		7.5	B	0.55	5.7
Benzo[a]anthracene		7.9	B	0.85	5.7
Chrysene		9.8	B	0.61	5.7
Benzo[fluoranthene]		14	B	1.4	11
Benzo[a]pyrene		6.0	B	0.59	5.7
Indeno[1,2,3-cd]pyrene		8.0	B	1.6	5.7
Dibenz(a,h)anthracene		8.6		1.6	5.7
Benzo[g,h,i]perylene		6.9	B	1.8	5.7
Surrogate		%Rec		Acceptance Limits	
Nitrobenzene-d5		77		38 - 141	
2-Fluorobiphenyl		87		42 - 140	
Terphenyl-d14		96		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-W**

Lab Sample ID: 580-3591-17  
 Client Matrix: Water

Date Sampled: 09/14/2006 1430  
 Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-10994	Lab File ID: ak006134.D
Dilution:	1.0		Initial Weight/Volume: 1000 mL
Date Analyzed:	09/19/2006 1637		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Phenol	ND		0.074	3.0
Bis(2-chloroethyl)ether	ND		0.18	2.0
2-Chlorophenol	ND		0.22	2.0
1,3-Dichlorobenzene	ND		0.11	2.0
1,4-Dichlorobenzene	ND		0.12	2.0
Benzyl alcohol	ND		0.13	2.0
1,2-Dichlorobenzene	ND		0.11	2.0
2-Methylphenol	ND		0.38	2.0
Bis(2-chloroisopropyl) ether	ND		0.088	2.0
3 & 4 Methylphenol	ND		0.17	4.0
N-Nitrosodi-n-propylamine	ND		0.20	2.0
Hexachloroethane	ND		0.13	3.0
Nitrobenzene	ND		0.075	2.0
Isophorone	ND		0.11	2.0
2-Nitrophenol	ND		0.21	2.0
2,4-Dimethylphenol	ND		0.18	10
Benzoic acid	ND		0.21	10
Bis(2-chloroethoxy)methane	ND		0.095	2.0
2,4-Dichlorophenol	ND		0.13	2.0
1,2,4-Trichlorobenzene	ND		0.10	2.0
Naphthalene	0.11	J	0.014	2.0
4-Chloroaniline	ND		0.19	2.0
Hexachlorobutadiene	ND		0.16	3.0
4-Chloro-3-methylphenol	ND		0.14	2.0
2-Methylnaphthalene	ND		0.055	1.0
Hexachlorocyclopentadiene	ND		0.12	10
2,4,6-Trichlorophenol	ND		0.10	3.0
2,4,5-Trichlorophenol	ND		0.085	2.0
2-Chloronaphthalene	ND		0.030	0.30
2-Nitroaniline	ND		0.11	2.0
Dimethyl phthalate	ND		0.12	2.0
Acenaphthylene	ND		0.026	0.40
2,6-Dinitrotoluene	ND		0.14	2.0
3-Nitroaniline	ND		0.56	2.0
Acenaphthene	ND		0.012	0.50
2,4-Dinitrophenol	ND		0.58	25
4-Nitrophenol	ND		1.6	10
Dibenzofuran	ND		0.098	2.0
2,4-Dinitrotoluene	ND		0.12	2.0
Diethyl phthalate	ND		0.093	2.0
4-Chlorophenyl phenyl ether	ND		0.12	2.0
Fluorene	ND		0.042	0.30
4-Nitroaniline	ND		0.18	3.0

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-W**

Lab Sample ID: 580-3591-17  
Client Matrix: Water

Date Sampled: 09/14/2006 1430  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation: 3510C	Prep Batch: 580-10994	Lab File ID: ak006134.D
Dilution: 1.0		Initial Weight/Volume: 1000 mL
Date Analyzed: 09/19/2006 1637		Final Weight/Volume: 10 mL
Date Prepared: 09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
4,6-Dinitro-2-methylphenol	ND		0.53	20
N-Nitrosodiphenylamine	ND		0.13	2.0
4-Bromophenyl phenyl ether	ND		0.10	2.0
Hexachlorobenzene	ND		0.082	2.0
Pentachlorophenol	ND		0.13	3.5
Phenanthrene	ND		0.024	0.40
Anthracene	ND		0.019	0.20
Di-n-butyl phthalate	0.33	J B	0.088	2.0
Fluoranthene	ND		0.027	0.25
Pyrene	ND		0.020	0.30
Butyl benzyl phthalate	1.0	J B	0.24	3.0
3,3'-Dichlorobenzidine	ND		1.6	10
Benzo[a]anthracene	ND		0.033	0.30
Chrysene	ND		0.045	0.20
Bis(2-ethylhexyl) phthalate	0.95	J B	0.32	15
Di-n-octyl phthalate	ND		0.18	2.0
Benzofluoranthene	ND		0.055	0.40
Benzo[a]pyrene	ND	*	0.027	0.20
Indeno[1,2,3-cd]pyrene	ND		0.051	0.30
Dibenz(a,h)anthracene	ND		0.046	0.30
Benzo[g,h,i]perylene	ND		0.060	0.30
Carbazole	ND		0.090	2.0
1-Methylnaphthalene	ND		0.052	0.30
Surrogate	%Rec		Acceptance Limits	
2-Fluorophenol	33		10 - 120	
Phenol-d5	19		10 - 102	
Nitrobenzene-d5	78		34 - 146	
2-Fluorobiphenyl	86		35 - 143	
2,4,6-Tribromophenol	72		29 - 151	
Terphenyl-d14	90		35 - 166	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-W**

Lab Sample ID: 580-3591-17  
Client Matrix: Water

Date Sampled: 09/14/2006 1430  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C	Analysis Batch: 580-11046	Instrument ID: SEA040
Preparation: 3510C	Prep Batch: 580-11009	Lab File ID: ak006145.D
Dilution: 1.0		Initial Weight/Volume: 1000 mL
Date Analyzed: 09/19/2006 2117		Final Weight/Volume: 10 mL
Date Prepared: 09/19/2006 1131		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	0.12	B	0.0060	0.10
2-Methylnaphthalene	0.065	J	0.0090	0.13
1-Methylnaphthalene	ND		0.032	0.10
Acenaphthylene	ND		0.0040	0.10
Acenaphthene	0.0035	J B	0.0030	0.10
Fluorene	ND		0.0080	0.10
Phenanthrene	0.016	J B	0.0030	0.10
Anthracene	ND		0.0080	0.10
Fluoranthene	ND		0.0090	0.10
Pyrene	ND		0.013	0.10
Benzo[a]anthracene	ND		0.0090	0.10
Chrysene	ND		0.0090	0.10
Benzo[fluoranthene]	ND		0.031	0.20
Benzo[a]pyrene	ND		0.060	0.20
Indeno[1,2,3-cd]pyrene	ND		0.015	0.10
Dibenz(a,h)anthracene	ND		0.012	0.10
Benzo[g,h,i]perylene	ND		0.018	0.10
Surrogate	%Rec		Acceptance Limits	
Nitrobenzene-d5	79		34 - 146	
2-Fluorobiphenyl	79		35 - 143	
Terphenyl-d14	84		35 - 166	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-020**

Lab Sample ID: 580-3591-19

Date Sampled: 09/14/2006 1505

Client Matrix: Solid

% Moisture: 9.8

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006176.D

Dilution: 1.0

Initial Weight/Volume: 10.8906 g

Date Analyzed: 09/20/2006 1813

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		ND		27	100
Bis(2-chloroethyl)ether		ND		31	100
2-Chlorophenol		ND		23	100
1,3-Dichlorobenzene		ND		12	51
1,4-Dichlorobenzene		ND		7.7	51
Benzyl alcohol		ND		31	100
1,2-Dichlorobenzene		ND		17	51
2-Methylphenol		ND		28	100
Bis(2-chloroisopropyl) ether		ND		35	150
3 & 4 Methylphenol		ND		54	200
N-Nitrosodi-n-propylamine		ND		26	100
Hexachloroethane		ND		21	100
Nitrobenzene		ND		15	100
Isophorone		ND		26	100
2-Nitrophenol		ND		23	100
2,4-Dimethylphenol		ND		19	100
Benzoic acid		ND		840	2500
Bis(2-chloroethoxy)methane		ND		25	100
2,4-Dichlorophenol		ND		19	100
1,2,4-Trichlorobenzene		ND		10	51
4-Chloroaniline		ND		27	100
Hexachlorobutadiene		ND		13	51
4-Chloro-3-methylphenol		ND		22	100
Hexachlorocyclopentadiene		ND		25	100
2,4,6-Trichlorophenol		ND		34	150
2,4,5-Trichlorophenol		ND		23	100
2-Chloronaphthalene		ND		1.9	20
2-Nitroaniline		ND		19	100
Dimethyl phthalate		ND		7.8	100
2,6-Dinitrotoluene		ND		19	100
3-Nitroaniline		ND	*	30	100
2,4-Dinitrophenol		ND		210	1000
4-Nitrophenol		ND		260	1000
Dibenzofuran		ND		17	100
2,4-Dinitrotoluene		ND		14	100
Diethyl phthalate		ND		7.3	100
4-Chlorophenyl phenyl ether		ND		16	100
4-Nitroaniline		ND		19	100
4,6-Dinitro-2-methylphenol		ND		270	1000
N-Nitrosodiphenylamine		ND		15	51
4-Bromophenyl phenyl ether		ND		10	100
Hexachlorobenzene		ND		11	51
Pentachlorophenol		ND		32	100



# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-020**

Lab Sample ID: 580-3591-19

Date Sampled: 09/14/2006 1505

Client Matrix: Solid

% Moisture: 9.8

Date Received: 09/15/2006 1830

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## 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006176.D

Dilution: 1.0

Initial Weight/Volume: 10.8906 g

Date Analyzed: 09/20/2006 1813

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		13	200
Butyl benzyl phthalate		ND		30	100
3,3'-Dichlorobenzidine		95	J	9.3	200
Bis(2-ethylhexyl) phthalate		ND		240	1500
Di-n-octyl phthalate		ND		34	200
Carbazole		ND		34	150
1-Methylnaphthalene		ND		8.9	31
Surrogate		%Rec		Acceptance Limits	
2-Fluorophenol		67		36 - 145	
Phenol-d5		63		38 - 149	
Nitrobenzene-d5		68		38 - 141	
2-Fluorobiphenyl		76		42 - 140	
2,4,6-Tribromophenol		55		28 - 143	
Terphenyl-d14		82		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-020**

Lab Sample ID: 580-3591-19

Date Sampled: 09/14/2006 1505

Client Matrix: Solid

% Moisture: 9.8

Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C

Analysis Batch: 580-11113

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11017

Lab File ID: ak006193.D

Dilution: 1.0

Initial Weight/Volume: 10.8906 g

Date Analyzed: 09/21/2006 0057

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		6.5		0.55	5.1
2-Methylnaphthalene		2.5	J	0.60	5.1
1-Methylnaphthalene		2.2	J	0.74	5.1
Acenaphthylene		0.69	J	0.57	5.1
Acenaphthene		2.6	J	0.57	5.1
Fluorene		2.1	J	0.59	5.1
Phenanthrene		140	B	0.71	5.1
Anthracene		19		0.50	5.1
Fluoranthene		980	B	0.47	5.1
Pyrene		810	B	0.49	5.1
Benzo[a]anthracene		790	B	0.76	5.1
Chrysene		870	B	0.55	5.1
Benzo[fluoranthene]		1900	B	1.3	10
Benzo[a]pyrene		880	B	0.53	5.1
Indeno[1,2,3-cd]pyrene		860	B	1.4	5.1
Dibenz(a,h)anthracene		270		1.4	5.1
Benzo[g,h,i]perylene		890	B	1.6	5.1
Surrogate		%Rec		Acceptance Limits	
Nitrobenzene-d5		75		38 - 141	
2-Fluorobiphenyl		79		42 - 140	
Terphenyl-d14		86		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-060**

Lab Sample ID: 580-3591-21

Date Sampled: 09/14/2006 1515

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11112	Instrument ID: SEA040
Preparation:	3550B	Prep Batch: 580-11062	Lab File ID: ak006178.D
Dilution:	1.0		Initial Weight/Volume: 10.4476 g
Date Analyzed:	09/20/2006 1901		Final Weight/Volume: 10 mL
Date Prepared:	09/20/2006 1316		Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		ND		30	110
Bis(2-chloroethyl)ether		ND		33	110
2-Chlorophenol		ND		25	110
1,3-Dichlorobenzene		ND		13	55
1,4-Dichlorobenzene		ND		8.3	55
Benzyl alcohol		ND		33	110
1,2-Dichlorobenzene		ND		19	55
2-Methylphenol		ND		31	110
Bis(2-chloroisopropyl) ether		ND		37	160
3 & 4 Methylphenol		ND		58	220
N-Nitrosodi-n-propylamine		ND		29	110
Hexachloroethane		ND		23	110
Nitrobenzene		ND		16	110
Isophorone		ND		29	110
2-Nitrophenol		ND		25	110
2,4-Dimethylphenol		ND		21	110
Benzoic acid		ND		910	2700
Bis(2-chloroethoxy)methane		ND		27	110
2,4-Dichlorophenol		ND		21	110
1,2,4-Trichlorobenzene		ND		11	55
4-Chloroaniline		ND		30	110
Hexachlorobutadiene		ND		14	55
4-Chloro-3-methylphenol		ND		24	110
Hexachlorocyclopentadiene		ND		27	110
2,4,6-Trichlorophenol		ND		36	160
2,4,5-Trichlorophenol		ND		25	110
2-Chloronaphthalene		ND		2.1	22
2-Nitroaniline		ND		21	110
Dimethyl phthalate		ND		8.5	110
2,6-Dinitrotoluene		ND		21	110
3-Nitroaniline		ND	*	32	110
2,4-Dinitrophenol		ND		230	1100
4-Nitrophenol		ND		290	1100
Dibenzofuran		ND		19	110
2,4-Dinitrotoluene		ND		15	110
Diethyl phthalate		ND		7.9	110
4-Chlorophenyl phenyl ether		ND		18	110
4-Nitroaniline		ND		21	110
4,6-Dinitro-2-methylphenol		ND		300	1100
N-Nitrosodiphenylamine		ND		16	55
4-Bromophenyl phenyl ether		ND		11	110
Hexachlorobenzene		ND		12	55
Pentachlorophenol		ND		34	110

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-060**

Lab Sample ID: 580-3591-21

Date Sampled: 09/14/2006 1515

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006178.D

Dilution: 1.0

Initial Weight/Volume: 10.4476 g

Date Analyzed: 09/20/2006 1901

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		14	220
Butyl benzyl phthalate		ND		32	110
3,3'-Dichlorobenzidine		ND		10	220
Bis(2-ethylhexyl) phthalate		ND		260	1600
Di-n-octyl phthalate		ND		36	220
Carbazole		ND		36	160
1-Methylnaphthalene		ND		9.6	33
Surrogate		%Rec		Acceptance Limits	
2-Fluorophenol		88		36 - 145	
Phenol-d5		84		38 - 149	
Nitrobenzene-d5		82		38 - 141	
2-Fluorobiphenyl		90		42 - 140	
2,4,6-Tribromophenol		79		28 - 143	
Terphenyl-d14		100		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-060**

Lab Sample ID: 580-3591-21

Date Sampled: 09/14/2006 1515

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C

Analysis Batch: 580-11113

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11017

Lab File ID: ak006194.D

Dilution: 1.0

Initial Weight/Volume: 10.4476 g

Date Analyzed: 09/21/2006 0121

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		ND		0.60	5.5
2-Methylnaphthalene		ND		0.65	5.5
1-Methylnaphthalene		ND		0.80	5.5
Acenaphthylene		ND		0.62	5.5
Acenaphthene		ND		0.61	5.5
Fluorene		ND		0.64	5.5
Phenanthrene		ND		0.77	5.5
Anthracene		ND		0.54	5.5
Fluoranthene		1.4	J B	0.51	5.5
Pyrene		1.3	J B	0.53	5.5
Benzo[a]anthracene		2.1	J B	0.82	5.5
Chrysene		1.7	J B	0.59	5.5
Benzo[fluoranthene]		2.9	J B	1.4	11
Benzo[a]pyrene		1.3	J B	0.57	5.5
Indeno[1,2,3-cd]pyrene		1.6	J B	1.6	5.5
Dibenz(a,h)anthracene		ND		1.5	5.5
Benzo[g,h,i]perylene		ND		1.8	5.5
Surrogate		%Rec		Acceptance Limits	
Nitrobenzene-d5		86		38 - 141	
2-Fluorobiphenyl		92		42 - 140	
Terphenyl-d14		102		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-W**

Lab Sample ID: 580-3591-23  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-10994	Lab File ID: ak006135.D
Dilution:	1.0		Initial Weight/Volume: 980 mL
Date Analyzed:	09/19/2006 1701		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Phenol	ND		0.076	3.1
Bis(2-chloroethyl)ether	ND		0.18	2.0
2-Chlorophenol	ND		0.22	2.0
1,3-Dichlorobenzene	ND		0.11	2.0
1,4-Dichlorobenzene	ND		0.12	2.0
Benzyl alcohol	ND		0.13	2.0
1,2-Dichlorobenzene	ND		0.11	2.0
2-Methylphenol	ND		0.39	2.0
Bis(2-chloroisopropyl) ether	ND		0.090	2.0
3 & 4 Methylphenol	ND		0.17	4.1
N-Nitrosodi-n-propylamine	ND		0.20	2.0
Hexachloroethane	ND		0.13	3.1
Nitrobenzene	ND		0.077	2.0
Isophorone	ND		0.11	2.0
2-Nitrophenol	ND		0.21	2.0
2,4-Dimethylphenol	ND		0.18	10
Benzoic acid	ND		0.21	10
Bis(2-chloroethoxy)methane	ND		0.097	2.0
2,4-Dichlorophenol	ND		0.13	2.0
1,2,4-Trichlorobenzene	ND		0.10	2.0
Naphthalene	0.10	J	0.014	2.0
4-Chloroaniline	ND		0.19	2.0
Hexachlorobutadiene	ND		0.16	3.1
4-Chloro-3-methylphenol	ND		0.14	2.0
2-Methylnaphthalene	ND		0.056	1.0
Hexachlorocyclopentadiene	ND		0.12	10
2,4,6-Trichlorophenol	ND		0.10	3.1
2,4,5-Trichlorophenol	ND		0.087	2.0
2-Chloronaphthalene	ND		0.031	0.31
2-Nitroaniline	ND		0.11	2.0
Dimethyl phthalate	ND		0.12	2.0
Acenaphthylene	ND		0.027	0.41
2,6-Dinitrotoluene	ND		0.14	2.0
3-Nitroaniline	ND		0.57	2.0
Acenaphthene	ND		0.012	0.51
2,4-Dinitrophenol	ND		0.59	26
4-Nitrophenol	ND		1.6	10
Dibenzofuran	ND		0.10	2.0
2,4-Dinitrotoluene	ND		0.12	2.0
Diethyl phthalate	0.14	J	0.095	2.0
4-Chlorophenyl phenyl ether	ND		0.12	2.0
Fluorene	ND		0.043	0.31
4-Nitroaniline	ND		0.18	3.1

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-W**

Lab Sample ID: 580-3591-23  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-10994	Lab File ID: ak006135.D
Dilution:	1.0		Initial Weight/Volume: 980 mL
Date Analyzed:	09/19/2006 1701		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
4,6-Dinitro-2-methylphenol	ND		0.54	20
N-Nitrosodiphenylamine	ND		0.13	2.0
4-Bromophenyl phenyl ether	ND		0.10	2.0
Hexachlorobenzene	ND		0.084	2.0
Pentachlorophenol	ND		0.13	3.6
Phenanthrene	ND		0.024	0.41
Anthracene	ND		0.019	0.20
Di-n-butyl phthalate	0.43	J B	0.090	2.0
Fluoranthene	ND		0.028	0.26
Pyrene	ND		0.020	0.31
Butyl benzyl phthalate	1.0	J B	0.24	3.1
3,3'-Dichlorobenzidine	ND		1.6	10
Benzo[a]anthracene	ND		0.034	0.31
Chrysene	ND		0.046	0.20
Bis(2-ethylhexyl) phthalate	1.1	J B	0.33	15
Di-n-octyl phthalate	ND		0.18	2.0
Benzofluoranthene	ND		0.056	0.41
Benzo[a]pyrene	ND	*	0.028	0.20
Indeno[1,2,3-cd]pyrene	ND		0.052	0.31
Dibenz(a,h)anthracene	ND		0.047	0.31
Benzo[g,h,i]perylene	ND		0.061	0.31
Carbazole	ND		0.092	2.0
1-Methylnaphthalene	ND		0.053	0.31
Surrogate	%Rec		Acceptance Limits	
2-Fluorophenol	25		10 - 120	
Phenol-d5	17		10 - 102	
Nitrobenzene-d5	87		34 - 146	
2-Fluorobiphenyl	96		35 - 143	
2,4,6-Tribromophenol	50		29 - 151	
Terphenyl-d14	101		35 - 166	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-W**

Lab Sample ID: 580-3591-23  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C	Analysis Batch: 580-11046	Instrument ID: SEA040
Preparation: 3510C	Prep Batch: 580-11009	Lab File ID: ak006146.D
Dilution: 1.0		Initial Weight/Volume: 980 mL
Date Analyzed: 09/19/2006 2142		Final Weight/Volume: 10 mL
Date Prepared: 09/19/2006 1131		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	0.10	J B	0.0061	0.10
2-Methylnaphthalene	0.045	J	0.0092	0.13
1-Methylnaphthalene	ND		0.033	0.10
Acenaphthylene	ND		0.0041	0.10
Acenaphthene	ND		0.0031	0.10
Fluorene	ND		0.0082	0.10
Phenanthrene	0.013	J B	0.0031	0.10
Anthracene	ND		0.0082	0.10
Fluoranthene	0.020	J	0.0092	0.10
Pyrene	0.017	J	0.013	0.10
Benzo[a]anthracene	0.022	J B	0.0092	0.10
Chrysene	ND		0.0092	0.10
Benzo[fluoranthene]	0.037	J	0.032	0.20
Benzo[a]pyrene	ND		0.061	0.20
Indeno[1,2,3-cd]pyrene	ND		0.015	0.10
Dibenz(a,h)anthracene	ND		0.012	0.10
Benzo[g,h,i]perylene	ND		0.018	0.10
Surrogate	%Rec		Acceptance Limits	
Nitrobenzene-d5	91		34 - 146	
2-Fluorobiphenyl	89		35 - 143	
Terphenyl-d14	93		35 - 166	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-020**

Lab Sample ID: 580-3591-25

Date Sampled: 09/14/2006 1545

Client Matrix: Solid

% Moisture: 5.5

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C	Analysis Batch: 580-11112	Instrument ID: SEA040
Preparation: 3550B	Prep Batch: 580-11062	Lab File ID: ak006177.D
Dilution: 1.0		Initial Weight/Volume: 10.6386 g
Date Analyzed: 09/20/2006 1837		Final Weight/Volume: 10 mL
Date Prepared: 09/20/2006 1316		Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		ND		27	99
Bis(2-chloroethyl)ether		ND		30	99
2-Chlorophenol		ND		23	99
1,3-Dichlorobenzene		ND		12	50
1,4-Dichlorobenzene		ND		7.6	50
Benzyl alcohol		ND		30	99
1,2-Dichlorobenzene		ND		17	50
2-Methylphenol		ND		28	99
Bis(2-chloroisopropyl) ether		ND		34	150
3 & 4 Methylphenol		ND		53	200
N-Nitrosodi-n-propylamine		ND		26	99
Hexachloroethane		ND		21	99
Nitrobenzene		ND		15	99
Isophorone		ND		26	99
2-Nitrophenol		ND		23	99
2,4-Dimethylphenol		ND		19	99
Benzoic acid		ND		830	2500
Bis(2-chloroethoxy)methane		ND		25	99
2,4-Dichlorophenol		ND		19	99
1,2,4-Trichlorobenzene		ND		9.8	50
4-Chloroaniline		ND		27	99
Hexachlorobutadiene		ND		13	50
4-Chloro-3-methylphenol		ND		22	99
Hexachlorocyclopentadiene		ND		25	99
2,4,6-Trichlorophenol		ND		33	150
2,4,5-Trichlorophenol		ND		23	99
2-Chloronaphthalene		ND		1.9	20
2-Nitroaniline		ND		19	99
Dimethyl phthalate		ND		7.7	99
2,6-Dinitrotoluene		ND		19	99
3-Nitroaniline		ND	*	29	99
2,4-Dinitrophenol		ND		200	990
4-Nitrophenol		ND		260	990
Dibenzofuran		ND		17	99
2,4-Dinitrotoluene		ND		14	99
Diethyl phthalate		12	J	7.2	99
4-Chlorophenyl phenyl ether		ND		16	99
4-Nitroaniline		ND		19	99
4,6-Dinitro-2-methylphenol		ND		270	990
N-Nitrosodiphenylamine		ND		15	50
4-Bromophenyl phenyl ether		ND		9.9	99
Hexachlorobenzene		ND		11	50
Pentachlorophenol		ND		31	99

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-020**

Lab Sample ID: 580-3591-25

Date Sampled: 09/14/2006 1545

Client Matrix: Solid

% Moisture: 5.5

Date Received: 09/15/2006 1830

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## 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006177.D

Dilution: 1.0

Initial Weight/Volume: 10.6386 g

Date Analyzed: 09/20/2006 1837

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		13	200
Butyl benzyl phthalate		ND		29	99
3,3'-Dichlorobenzidine		ND		9.0	200
Bis(2-ethylhexyl) phthalate		ND		240	1500
Di-n-octyl phthalate		140	J	33	200
Carbazole		ND		33	150
1-Methylnaphthalene		25	J	8.6	30
Surrogate		%Rec		Acceptance Limits	
2-Fluorophenol		83		36 - 145	
Phenol-d5		77		38 - 149	
Nitrobenzene-d5		81		38 - 141	
2-Fluorobiphenyl		86		42 - 140	
2,4,6-Tribromophenol		72		28 - 143	
Terphenyl-d14		97		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-020**

Lab Sample ID: 580-3591-25

Date Sampled: 09/14/2006 1545

Client Matrix: Solid

% Moisture: 5.5

Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C

Analysis Batch: 580-11113

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11017

Lab File ID: ak006195.D

Dilution: 1.0

Initial Weight/Volume: 10.6386 g

Date Analyzed: 09/21/2006 0146

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		88		0.54	5.0
2-Methylnaphthalene		190		0.59	5.0
1-Methylnaphthalene		39		0.73	5.0
Acenaphthylene		ND		0.56	5.0
Acenaphthene		11		0.56	5.0
Fluorene		ND		0.58	5.0
Phenanthrene		52	B	0.69	5.0
Anthracene		4.3	J	0.49	5.0
Fluoranthene		100	B	0.46	5.0
Pyrene		90	B	0.48	5.0
Benzo[a]anthracene		48	B	0.74	5.0
Chrysene		46	B	0.53	5.0
Benzo[fluoranthene]		90	B	1.3	9.9
Benzo[a]pyrene		38	B	0.51	5.0
Indeno[1,2,3-cd]pyrene		29	B	1.4	5.0
Dibenz(a,h)anthracene		8.3		1.4	5.0
Benzo[g,h,i]perylene		38	B	1.6	5.0
Surrogate		%Rec		Acceptance Limits	
Nitrobenzene-d5		81		38 - 141	
2-Fluorobiphenyl		83		42 - 140	
Terphenyl-d14		89		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-060**

Lab Sample ID: 580-3591-27

Date Sampled: 09/14/2006 1600

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006179.D

Dilution: 1.0

Initial Weight/Volume: 10.4936 g

Date Analyzed: 09/20/2006 1926

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		ND		29	110
Bis(2-chloroethyl)ether		ND		33	110
2-Chlorophenol		ND		25	110
1,3-Dichlorobenzene		ND		13	55
1,4-Dichlorobenzene		ND		8.3	55
Benzyl alcohol		ND		33	110
1,2-Dichlorobenzene		ND		19	55
2-Methylphenol		ND		31	110
Bis(2-chloroisopropyl) ether		ND		37	160
3 & 4 Methylphenol		ND		58	220
N-Nitrosodi-n-propylamine		ND		28	110
Hexachloroethane		ND		23	110
Nitrobenzene		ND		16	110
Isophorone		ND		28	110
2-Nitrophenol		ND		25	110
2,4-Dimethylphenol		ND		21	110
Benzoic acid		ND		910	2700
Bis(2-chloroethoxy)methane		ND		27	110
2,4-Dichlorophenol		ND		21	110
1,2,4-Trichlorobenzene		ND		11	55
4-Chloroaniline		ND		29	110
Hexachlorobutadiene		ND		14	55
4-Chloro-3-methylphenol		ND		24	110
Hexachlorocyclopentadiene		ND		27	110
2,4,6-Trichlorophenol		ND		36	160
2,4,5-Trichlorophenol		ND		25	110
2-Chloronaphthalene		ND		2.1	22
2-Nitroaniline		ND		21	110
Dimethyl phthalate		ND		8.4	110
2,6-Dinitrotoluene		ND		21	110
3-Nitroaniline		ND	*	32	110
2,4-Dinitrophenol		ND		220	1100
4-Nitrophenol		ND		280	1100
Dibenzofuran		ND		19	110
2,4-Dinitrotoluene		ND		15	110
Diethyl phthalate		ND		7.9	110
4-Chlorophenyl phenyl ether		ND		17	110
4-Nitroaniline		ND		21	110
4,6-Dinitro-2-methylphenol		ND		290	1100
N-Nitrosodiphenylamine		ND		16	55
4-Bromophenyl phenyl ether		ND		11	110
Hexachlorobenzene		ND		12	55
Pentachlorophenol		ND		34	110

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-060**

Lab Sample ID: 580-3591-27

Date Sampled: 09/14/2006 1600

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C

Analysis Batch: 580-11112

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11062

Lab File ID: ak006179.D

Dilution: 1.0

Initial Weight/Volume: 10.4936 g

Date Analyzed: 09/20/2006 1926

Final Weight/Volume: 10 mL

Date Prepared: 09/20/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		14	220
Butyl benzyl phthalate		ND		32	110
3,3'-Dichlorobenzidine		ND		9.9	220
Bis(2-ethylhexyl) phthalate		ND		260	1600
Di-n-octyl phthalate		ND		36	220
Carbazole		ND		36	160
1-Methylnaphthalene		ND		9.5	33
Surrogate		%Rec		Acceptance Limits	
2-Fluorophenol		89		36 - 145	
Phenol-d5		84		38 - 149	
Nitrobenzene-d5		82		38 - 141	
2-Fluorobiphenyl		90		42 - 140	
2,4,6-Tribromophenol		77		28 - 143	
Terphenyl-d14		97		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-060**

Lab Sample ID: 580-3591-27

Date Sampled: 09/14/2006 1600

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method: 8270C

Analysis Batch: 580-11113

Instrument ID: SEA040

Preparation: 3550B

Prep Batch: 580-11017

Lab File ID: ak006196.D

Dilution: 1.0

Initial Weight/Volume: 10.4936 g

Date Analyzed: 09/21/2006 0210

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1316

Injection Volume:

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		ND		0.59	5.5
2-Methylnaphthalene		ND		0.65	5.5
1-Methylnaphthalene		ND		0.80	5.5
Acenaphthylene		ND		0.61	5.5
Acenaphthene		ND		0.61	5.5
Fluorene		ND		0.64	5.5
Phenanthrene		ND		0.76	5.5
Anthracene		ND		0.54	5.5
Fluoranthene		0.75	J B	0.51	5.5
Pyrene		0.78	J B	0.53	5.5
Benzo[a]anthracene		1.2	J B	0.82	5.5
Chrysene		0.76	J B	0.59	5.5
Benzo[fluoranthene]		1.4	J B	1.4	11
Benzo[a]pyrene		0.72	J B	0.56	5.5
Indeno[1,2,3-cd]pyrene		ND		1.6	5.5
Dibenz(a,h)anthracene		ND		1.5	5.5
Benzo[g,h,i]perylene		ND		1.8	5.5
Surrogate		%Rec		Acceptance Limits	
Nitrobenzene-d5		96		38 - 141	
2-Fluorobiphenyl		84		42 - 140	
Terphenyl-d14		95		42 - 151	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-W**

Lab Sample ID: 580-3591-29  
Client Matrix: Water

Date Sampled: 09/14/2006 1610  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-10994	Lab File ID: ak006136.D
Dilution:	1.0		Initial Weight/Volume: 900 mL
Date Analyzed:	09/19/2006 1725		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Phenol	ND		0.082	3.3
Bis(2-chloroethyl)ether	ND		0.20	2.2
2-Chlorophenol	ND		0.24	2.2
1,3-Dichlorobenzene	ND		0.12	2.2
1,4-Dichlorobenzene	ND		0.13	2.2
Benzyl alcohol	ND		0.14	2.2
1,2-Dichlorobenzene	ND		0.12	2.2
2-Methylphenol	ND		0.42	2.2
Bis(2-chloroisopropyl) ether	ND		0.098	2.2
3 & 4 Methylphenol	ND		0.19	4.4
N-Nitrosodi-n-propylamine	ND		0.22	2.2
Hexachloroethane	ND		0.14	3.3
Nitrobenzene	ND		0.083	2.2
Isophorone	ND		0.12	2.2
2-Nitrophenol	ND		0.23	2.2
2,4-Dimethylphenol	ND		0.20	11
Benzoic acid	ND		0.23	11
Bis(2-chloroethoxy)methane	ND		0.11	2.2
2,4-Dichlorophenol	ND		0.14	2.2
1,2,4-Trichlorobenzene	ND		0.11	2.2
Naphthalene	0.088	J	0.016	2.2
4-Chloroaniline	ND		0.21	2.2
Hexachlorobutadiene	ND		0.18	3.3
4-Chloro-3-methylphenol	ND		0.16	2.2
2-Methylnaphthalene	ND		0.061	1.1
Hexachlorocyclopentadiene	ND		0.13	11
2,4,6-Trichlorophenol	ND		0.11	3.3
2,4,5-Trichlorophenol	ND		0.094	2.2
2-Chloronaphthalene	ND		0.033	0.33
2-Nitroaniline	ND		0.12	2.2
Dimethyl phthalate	ND		0.13	2.2
Acenaphthylene	ND		0.029	0.44
2,6-Dinitrotoluene	ND		0.16	2.2
3-Nitroaniline	ND		0.62	2.2
Acenaphthene	ND		0.013	0.56
2,4-Dinitrophenol	ND		0.64	28
4-Nitrophenol	ND		1.8	11
Dibenzofuran	ND		0.11	2.2
2,4-Dinitrotoluene	ND		0.13	2.2
Diethyl phthalate	0.12	J	0.10	2.2
4-Chlorophenyl phenyl ether	ND		0.13	2.2
Fluorene	ND		0.047	0.33
4-Nitroaniline	ND		0.20	3.3

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-W**

Lab Sample ID: 580-3591-29  
Client Matrix: Water

Date Sampled: 09/14/2006 1610  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-11031	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-10994	Lab File ID: ak006136.D
Dilution:	1.0		Initial Weight/Volume: 900 mL
Date Analyzed:	09/19/2006 1725		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 0755		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
4,6-Dinitro-2-methylphenol	ND		0.59	22
N-Nitrosodiphenylamine	ND		0.14	2.2
4-Bromophenyl phenyl ether	ND		0.11	2.2
Hexachlorobenzene	ND		0.091	2.2
Pentachlorophenol	ND		0.14	3.9
Phenanthrene	ND		0.027	0.44
Anthracene	ND		0.021	0.22
Di-n-butyl phthalate	0.50	J B	0.098	2.2
Fluoranthene	ND		0.030	0.28
Pyrene	ND		0.022	0.33
Butyl benzyl phthalate	1.1	J B	0.27	3.3
3,3'-Dichlorobenzidine	ND		1.8	11
Benzo[a]anthracene	ND		0.037	0.33
Chrysene	ND		0.050	0.22
Bis(2-ethylhexyl) phthalate	1.1	J B	0.36	17
Di-n-octyl phthalate	ND		0.20	2.2
Benzofluoranthene	ND		0.061	0.44
Benzo[a]pyrene	ND	*	0.030	0.22
Indeno[1,2,3-cd]pyrene	ND		0.057	0.33
Dibenz(a,h)anthracene	ND		0.051	0.33
Benzo[g,h,i]perylene	ND		0.067	0.33
Carbazole	ND		0.10	2.2
1-Methylnaphthalene	ND		0.058	0.33
Surrogate	%Rec		Acceptance Limits	
2-Fluorophenol	37		10 - 120	
Phenol-d5	22		10 - 102	
Nitrobenzene-d5	88		34 - 146	
2-Fluorobiphenyl	98		35 - 143	
2,4,6-Tribromophenol	71		29 - 151	
Terphenyl-d14	101		35 - 166	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-W**

Lab Sample ID: 580-3591-29  
Client Matrix: Water

Date Sampled: 09/14/2006 1610  
Date Received: 09/15/2006 1830

### 8270C Semivolatile Organic Compounds by GC/MS (Selective Ion Monitoring)

Method:	8270C	Analysis Batch: 580-11046	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-11009	Lab File ID: ak006147.D
Dilution:	1.0		Initial Weight/Volume: 900 mL
Date Analyzed:	09/19/2006 2206		Final Weight/Volume: 10 mL
Date Prepared:	09/19/2006 1131		Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Naphthalene	0.076	J B	0.0067	0.11
2-Methylnaphthalene	0.055	J	0.010	0.14
1-Methylnaphthalene	ND		0.036	0.11
Acenaphthylene	ND		0.0044	0.11
Acenaphthene	ND		0.0033	0.11
Fluorene	ND		0.0089	0.11
Phenanthrene	0.011	J B	0.0033	0.11
Anthracene	ND		0.0089	0.11
Fluoranthene	ND		0.010	0.11
Pyrene	ND		0.014	0.11
Benzo[a]anthracene	ND		0.010	0.11
Chrysene	ND		0.010	0.11
Benzo[fluoranthene]	ND		0.034	0.22
Benzo[a]pyrene	ND		0.067	0.22
Indeno[1,2,3-cd]pyrene	ND		0.017	0.11
Dibenz(a,h)anthracene	ND		0.013	0.11
Benzo[g,h,i]perylene	ND		0.020	0.11
Surrogate	%Rec		Acceptance Limits	
Nitrobenzene-d5	88		34 - 146	
2-Fluorobiphenyl	87		35 - 143	
Terphenyl-d14	92		35 - 166	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-020**

Lab Sample ID: 580-3591-2

Date Sampled: 09/14/2006 1105

Client Matrix: Solid

% Moisture: 2.2

Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11084

Instrument ID: SEA041

Preparation: 5035

Prep Batch: 580-11132

Lab File ID: GX0003013.D

Dilution: 1.0

Initial Weight/Volume: 5.68 g

Date Analyzed: 09/22/2006 1757

Final Weight/Volume: 400 mL

Date Prepared: 09/22/2006 0954

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Gasoline		ND		0.46	7.2
Surrogate		%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		100		50 - 150	
Trifluorotoluene (Surr)		100		50 - 150	
Ethylbenzene-d10		102		50 - 150	
Fluorobenzene (Surr)		98		50 - 150	
Toluene-d8 (Surr)		105		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-060**

Lab Sample ID: 580-3591-4

Date Sampled: 09/14/2006 1115

Client Matrix: Solid

% Moisture: 13.6

Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11084

Instrument ID: SEA041

Preparation: 5035

Prep Batch: 580-11132

Lab File ID: GX0003008.D

Dilution: 1.0

Initial Weight/Volume: 5.61 g

Date Analyzed: 09/22/2006 1605

Final Weight/Volume: 400 mL

Date Prepared: 09/22/2006 0954

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Gasoline		ND		0.53	8.3
Surrogate		%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		99		50 - 150	
Trifluorotoluene (Surr)		90		50 - 150	
Ethylbenzene-d10		102		50 - 150	
Fluorobenzene (Surr)		98		50 - 150	
Toluene-d8 (Surr)		105		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-W**

Lab Sample ID: 580-3591-6  
Client Matrix: Water

Date Sampled: 09/14/2006 1130  
Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method:	NWTPH-Gx	Analysis Batch: 580-11154	Instrument ID:	SEA003
Preparation:	5030B		Lab File ID:	CS167407.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	09/22/2006 1516		Final Weight/Volume:	5 mL
Date Prepared:	09/22/2006 1516		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Gasoline	0.048	J B	0.0077	0.050
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	97		50 - 150	
Trifluorotoluene (Surr)	92		50 - 150	
Ethylbenzene-d10	104		50 - 150	
Fluorobenzene (Surr)	83		50 - 150	
Toluene-d8 (Surr)	105		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-WDUP**

Lab Sample ID: 580-3591-7  
Client Matrix: Water

Date Sampled: 09/14/2006 1140  
Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method:	NWTPH-Gx	Analysis Batch: 580-11154	Instrument ID:	SEA003
Preparation:	5030B		Lab File ID:	CS167408.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	09/22/2006 1539		Final Weight/Volume:	5 mL
Date Prepared:	09/22/2006 1539		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Gasoline	0.029	J B	0.0077	0.050
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	97		50 - 150	
Trifluorotoluene (Surr)	91		50 - 150	
Ethylbenzene-d10	103		50 - 150	
Fluorobenzene (Surr)	83		50 - 150	
Toluene-d8 (Surr)	104		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-040**

Lab Sample ID: 580-3591-8

Date Sampled: 09/14/2006 1240

Client Matrix: Solid

% Moisture: 10.7

Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11084

Instrument ID: SEA041

Preparation: 5035

Prep Batch: 580-11132

Lab File ID: GX0003009.D

Dilution: 1.0

Initial Weight/Volume: 5.66 g

Date Analyzed: 09/22/2006 1627

Final Weight/Volume: 400 mL

Date Prepared: 09/22/2006 0954

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Gasoline		ND		0.50	7.9
Surrogate		%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		100		50 - 150	
Trifluorotoluene (Surr)		95		50 - 150	
Ethylbenzene-d10		102		50 - 150	
Fluorobenzene (Surr)		96		50 - 150	
Toluene-d8 (Surr)		104		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-060**

Lab Sample ID: 580-3591-9

Date Sampled: 09/14/2006 1245

Client Matrix: Solid

% Moisture: 17.3

Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11084

Instrument ID: SEA041

Preparation: 5035

Prep Batch: 580-11132

Lab File ID: GX0003005.D

Dilution: 1.0

Initial Weight/Volume: 5.86 g

Date Analyzed: 09/22/2006 1458

Final Weight/Volume: 400 mL

Date Prepared: 09/22/2006 0954

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Gasoline		ND		0.53	8.3
Surrogate		%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		100		50 - 150	
Trifluorotoluene (Surr)		84		50 - 150	
Ethylbenzene-d10		101		50 - 150	
Fluorobenzene (Surr)		96		50 - 150	
Toluene-d8 (Surr)		103		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-W**

Lab Sample ID: 580-3591-11  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

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### NWTPH-Gx Volatile Petroleum Products

Method:	NWTPH-Gx	Analysis Batch: 580-11154	Instrument ID:	SEA003
Preparation:	5030B		Lab File ID:	CS167409.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	09/22/2006 1602		Final Weight/Volume:	5 mL
Date Prepared:	09/22/2006 1602		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Gasoline	0.024	J B	0.0077	0.050
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	98		50 - 150	
Trifluorotoluene (Surr)	92		50 - 150	
Ethylbenzene-d10	103		50 - 150	
Fluorobenzene (Surr)	83		50 - 150	
Toluene-d8 (Surr)	104		50 - 150	



# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-020**

Lab Sample ID: 580-3591-13

Date Sampled: 09/14/2006 1405

Client Matrix: Solid

% Moisture: 10.5

Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11084

Instrument ID: SEA041

Preparation: 5035

Prep Batch: 580-11132

Lab File ID: GX0003012.D

Dilution: 1.0

Initial Weight/Volume: 5.44 g

Date Analyzed: 09/22/2006 1735

Final Weight/Volume: 400 mL

Date Prepared: 09/22/2006 0954

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Gasoline		ND		0.52	8.2
Surrogate		%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		100		50 - 150	
Trifluorotoluene (Surr)		94		50 - 150	
Ethylbenzene-d10		103		50 - 150	
Fluorobenzene (Surr)		97		50 - 150	
Toluene-d8 (Surr)		105		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-060**

Lab Sample ID: 580-3591-15

Date Sampled: 09/14/2006 1415

Client Matrix: Solid

% Moisture: 14.7

Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11084

Instrument ID: SEA041

Preparation: 5035

Prep Batch: 580-11132

Lab File ID: GX0003007.D

Dilution: 1.0

Initial Weight/Volume: 6.45 g

Date Analyzed: 09/22/2006 1543

Final Weight/Volume: 400 mL

Date Prepared: 09/22/2006 0954

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Gasoline		ND		0.46	7.3
Surrogate		%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		99		50 - 150	
Trifluorotoluene (Surr)		86		50 - 150	
Ethylbenzene-d10		100		50 - 150	
Fluorobenzene (Surr)		96		50 - 150	
Toluene-d8 (Surr)		102		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-W**

Lab Sample ID: 580-3591-17  
Client Matrix: Water

Date Sampled: 09/14/2006 1430  
Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method:	NWTPH-Gx	Analysis Batch: 580-11154	Instrument ID:	SEA003
Preparation:	5030B		Lab File ID:	CS167410.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	09/22/2006 1624		Final Weight/Volume:	5 mL
Date Prepared:	09/22/2006 1624		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Gasoline	0.015	J B	0.0077	0.050
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	98		50 - 150	
Trifluorotoluene (Surr)	91		50 - 150	
Ethylbenzene-d10	104		50 - 150	
Fluorobenzene (Surr)	84		50 - 150	
Toluene-d8 (Surr)	105		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-020**

Lab Sample ID: 580-3591-19

Date Sampled: 09/14/2006 1505

Client Matrix: Solid

% Moisture: 9.8

Date Received: 09/15/2006 1830

---

## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11084

Instrument ID: SEA041

Preparation: 5035

Prep Batch: 580-11132

Lab File ID: GX0003006.D

Dilution: 1.0

Initial Weight/Volume: 4.15 g

Date Analyzed: 09/22/2006 1520

Final Weight/Volume: 400 mL

Date Prepared: 09/22/2006 0954

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Gasoline		ND		0.68	11
Surrogate		%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		99		50 - 150	
Trifluorotoluene (Surr)		97		50 - 150	
Ethylbenzene-d10		101		50 - 150	
Fluorobenzene (Surr)		96		50 - 150	
Toluene-d8 (Surr)		103		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-060**

Lab Sample ID: 580-3591-21

Date Sampled: 09/14/2006 1515

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

---

## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11084

Instrument ID: SEA041

Preparation: 5035

Prep Batch: 580-11132

Lab File ID: GX0003010.D

Dilution: 1.0

Initial Weight/Volume: 5.65 g

Date Analyzed: 09/22/2006 1650

Final Weight/Volume: 400 mL

Date Prepared: 09/22/2006 0954

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Gasoline		ND		0.52	8.1
Surrogate		%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		98		50 - 150	
Trifluorotoluene (Surr)		89		50 - 150	
Ethylbenzene-d10		100		50 - 150	
Fluorobenzene (Surr)		96		50 - 150	
Toluene-d8 (Surr)		102		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-W**

Lab Sample ID: 580-3591-23  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method:	NWTPH-Gx	Analysis Batch: 580-11154	Instrument ID:	SEA003
Preparation:	5030B		Lab File ID:	CS167411.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	09/22/2006 1647		Final Weight/Volume:	5 mL
Date Prepared:	09/22/2006 1647		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Gasoline	0.012	J B	0.0077	0.050
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	98		50 - 150	
Trifluorotoluene (Surr)	92		50 - 150	
Ethylbenzene-d10	103		50 - 150	
Fluorobenzene (Surr)	84		50 - 150	
Toluene-d8 (Surr)	105		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-020**

Lab Sample ID: 580-3591-25

Date Sampled: 09/14/2006 1545

Client Matrix: Solid

% Moisture: 5.5

Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11084

Instrument ID: SEA041

Preparation: 5035

Prep Batch: 580-11132

Lab File ID: GX0003011.D

Dilution: 1.0

Initial Weight/Volume: 4.58 g

Date Analyzed: 09/22/2006 1712

Final Weight/Volume: 400 mL

Date Prepared: 09/22/2006 0954

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Gasoline		ND		0.59	9.2
Surrogate		%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		98		50 - 150	
Trifluorotoluene (Surr)		93		50 - 150	
Ethylbenzene-d10		98		50 - 150	
Fluorobenzene (Surr)		94		50 - 150	
Toluene-d8 (Surr)		100		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-060**

Lab Sample ID: 580-3591-27

Date Sampled: 09/14/2006 1600

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11084

Instrument ID: SEA041

Preparation: 5035

Prep Batch: 580-11132

Lab File ID: GX0003004.D

Dilution: 1.0

Initial Weight/Volume: 5.84 g

Date Analyzed: 09/22/2006 1435

Final Weight/Volume: 400 mL

Date Prepared: 09/22/2006 0954

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Gasoline		ND		0.50	7.9
Surrogate		%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		99		50 - 150	
Trifluorotoluene (Surr)		90		50 - 150	
Ethylbenzene-d10		101		50 - 150	
Fluorobenzene (Surr)		96		50 - 150	
Toluene-d8 (Surr)		104		50 - 150	



# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-W**

Lab Sample ID: 580-3591-29

Date Sampled: 09/14/2006 1610

Client Matrix: Water

Date Received: 09/15/2006 1830

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-11154

Instrument ID: SEA003

Preparation: 5030B

Lab File ID: CS167412.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 09/22/2006 1709

Final Weight/Volume: 5 mL

Date Prepared: 09/22/2006 1709

Injection Volume:

Column ID: PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Gasoline	0.0096	J B	0.0077	0.050
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	98		50 - 150	
Trifluorotoluene (Surr)	91		50 - 150	
Ethylbenzene-d10	104		50 - 150	
Fluorobenzene (Surr)	83		50 - 150	
Toluene-d8 (Surr)	105		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-020**

Lab Sample ID: 580-3591-2

Date Sampled: 09/14/2006 1105

Client Matrix: Solid

% Moisture: 2.2

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11036

Instrument ID: SEA015

Preparation: 3550B

Prep Batch: 580-11003

Lab File ID: PL13827.D

Dilution: 1.0

Initial Weight/Volume: 10.3363 g

Date Analyzed: 09/19/2006 1924

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1020

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Motor Oil (>C24-C36)		ND		5.9	49
#2 Diesel (C10-C24)		ND		6.0	25
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		92		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-060**

Lab Sample ID: 580-3591-4

Date Sampled: 09/14/2006 1115

Client Matrix: Solid

% Moisture: 13.6

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11036

Instrument ID: SEA015

Preparation: 3550B

Prep Batch: 580-11003

Lab File ID: PL13829.D

Dilution: 1.0

Initial Weight/Volume: 10.7058 g

Date Analyzed: 09/19/2006 2004

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1020

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Motor Oil (>C24-C36)		ND		6.5	54
#2 Diesel (C10-C24)		ND		6.5	27
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		81		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-W**

Lab Sample ID: 580-3591-6  
Client Matrix: Water

Date Sampled: 09/14/2006 1130  
Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-11035	Instrument ID:	SEA015
Preparation:	3510C	Prep Batch: 580-10997	Lab File ID:	PL13817.D
Dilution:	1.0		Initial Weight/Volume:	940 mL
Date Analyzed:	09/19/2006 1547		Final Weight/Volume:	5 mL
Date Prepared:	09/19/2006 0921		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Motor Oil (>C24-C36)	ND		0.064	0.53
#2 Diesel (C10-C24)	ND		0.034	0.27
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	97		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-WDUP**

Lab Sample ID: 580-3591-7

Date Sampled: 09/14/2006 1140

Client Matrix: Water

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-11035	Instrument ID:	SEA015
Preparation:	3510C	Prep Batch: 580-10997	Lab File ID:	PL13818.D
Dilution:	1.0		Initial Weight/Volume:	940 mL
Date Analyzed:	09/19/2006 1607		Final Weight/Volume:	5 mL
Date Prepared:	09/19/2006 0921		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Motor Oil (>C24-C36)	ND		0.064	0.53
#2 Diesel (C10-C24)	ND		0.034	0.27
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	99		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-040**

Lab Sample ID: 580-3591-8

Date Sampled: 09/14/2006 1240

Client Matrix: Solid

% Moisture: 10.7

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11036

Instrument ID: SEA015

Preparation: 3550B

Prep Batch: 580-11003

Lab File ID: PL13830.D

Dilution: 1.0

Initial Weight/Volume: 10.0921 g

Date Analyzed: 09/19/2006 2025

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1020

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Motor Oil (>C24-C36)		ND		6.6	55
#2 Diesel (C10-C24)		ND		6.7	28
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		71		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-060**

Lab Sample ID: 580-3591-9

Date Sampled: 09/14/2006 1245

Client Matrix: Solid

% Moisture: 17.3

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11036

Instrument ID: SEA015

Preparation: 3550B

Prep Batch: 580-11003

Lab File ID: PL13831.D

Dilution: 1.0

Initial Weight/Volume: 10.4496 g

Date Analyzed: 09/19/2006 2045

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1020

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Motor Oil (>C24-C36)		ND		6.9	58
#2 Diesel (C10-C24)		ND		7.0	29
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		81		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-W**

Lab Sample ID: 580-3591-11

Date Sampled: 09/14/2006 1315

Client Matrix: Water

Date Received: 09/15/2006 1830

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11035

Instrument ID: SEA015

Preparation: 3510C

Prep Batch: 580-10997

Lab File ID: PL13819.D

Dilution: 1.0

Initial Weight/Volume: 1000 mL

Date Analyzed: 09/19/2006 1627

Final Weight/Volume: 5 mL

Date Prepared: 09/19/2006 0921

Injection Volume:

Column ID: PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Motor Oil (>C24-C36)	ND		0.060	0.50
#2 Diesel (C10-C24)	ND		0.032	0.25
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	96		50 - 150	



# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-020**

Lab Sample ID: 580-3591-13

Date Sampled: 09/14/2006 1405

Client Matrix: Solid

% Moisture: 10.5

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11036

Instrument ID: SEA015

Preparation: 3550B

Prep Batch: 580-11003

Lab File ID: PL13832.D

Dilution: 1.0

Initial Weight/Volume: 10.6551 g

Date Analyzed: 09/19/2006 2105

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1020

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Motor Oil (>C24-C36)		24	J	6.3	52
#2 Diesel (C10-C24)		7.9	J	6.3	26
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		79			50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-060**

Lab Sample ID: 580-3591-15

Date Sampled: 09/14/2006 1415

Client Matrix: Solid

% Moisture: 14.7

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11036

Instrument ID: SEA015

Preparation: 3550B

Prep Batch: 580-11003

Lab File ID: PL13833.D

Dilution: 1.0

Initial Weight/Volume: 10.5886 g

Date Analyzed: 09/19/2006 2130

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1020

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Motor Oil (>C24-C36)		54	J	6.6	55
#2 Diesel (C10-C24)		15	J	6.7	28
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		86			50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP15-060914-W**

Lab Sample ID: 580-3591-17  
Client Matrix: Water

Date Sampled: 09/14/2006 1430  
Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-11035	Instrument ID: SEA015
Preparation:	3510C	Prep Batch: 580-10997	Lab File ID: PL13820.D
Dilution:	1.0		Initial Weight/Volume: 1005 mL
Date Analyzed:	09/19/2006 1647		Final Weight/Volume: 5 mL
Date Prepared:	09/19/2006 0921		Injection Volume:
			Column ID: PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Motor Oil (>C24-C36)	ND		0.060	0.50
#2 Diesel (C10-C24)	ND		0.032	0.25
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	104		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-020**

Lab Sample ID: 580-3591-19

Date Sampled: 09/14/2006 1505

Client Matrix: Solid

% Moisture: 9.8

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11036

Instrument ID: SEA015

Preparation: 3550B

Prep Batch: 580-11003

Lab File ID: PL13834.D

Dilution: 1.0

Initial Weight/Volume: 10.9029 g

Date Analyzed: 09/19/2006 2156

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1020

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Motor Oil (>C24-C36)		ND		6.1	51
#2 Diesel (C10-C24)		ND		6.1	25
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		83		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-060**

Lab Sample ID: 580-3591-21

Date Sampled: 09/14/2006 1515

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11036

Instrument ID: SEA015

Preparation: 3550B

Prep Batch: 580-11003

Lab File ID: PL13835.D

Dilution: 1.0

Initial Weight/Volume: 10.3024 g

Date Analyzed: 09/19/2006 2216

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1020

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Motor Oil (>C24-C36)		ND		6.7	56
#2 Diesel (C10-C24)		ND		6.7	28
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		88		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-W**

Lab Sample ID: 580-3591-23  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-11035	Instrument ID: SEA015
Preparation:	3510C	Prep Batch: 580-10997	Lab File ID: PL13821.D
Dilution:	1.0		Initial Weight/Volume: 1000 mL
Date Analyzed:	09/19/2006 1707		Final Weight/Volume: 5 mL
Date Prepared:	09/19/2006 0921		Injection Volume:
			Column ID: PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Motor Oil (>C24-C36)	ND		0.060	0.50
#2 Diesel (C10-C24)	ND		0.032	0.25
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	102		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-020**

Lab Sample ID: 580-3591-25

Date Sampled: 09/14/2006 1545

Client Matrix: Solid

% Moisture: 5.5

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11036

Instrument ID: SEA015

Preparation: 3550B

Prep Batch: 580-11003

Lab File ID: PL13836.D

Dilution: 1.0

Initial Weight/Volume: 10.8944 g

Date Analyzed: 09/19/2006 2236

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1020

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Motor Oil (>C24-C36)		140		5.8	49
#2 Diesel (C10-C24)		210		5.8	24
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		90		50 - 150	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-060**

Lab Sample ID: 580-3591-27

Date Sampled: 09/14/2006 1600

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

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## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-11036

Instrument ID: SEA015

Preparation: 3550B

Prep Batch: 580-11003

Lab File ID: PL13837.D

Dilution: 1.0

Initial Weight/Volume: 10.6400 g

Date Analyzed: 09/19/2006 2302

Final Weight/Volume: 10 mL

Date Prepared: 09/19/2006 1020

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Motor Oil (>C24-C36)		ND		6.5	54
#2 Diesel (C10-C24)		ND		6.5	27
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		91		50 - 150	



# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-W**

Lab Sample ID: 580-3591-29  
Client Matrix: Water

Date Sampled: 09/14/2006 1610  
Date Received: 09/15/2006 1830

---

## NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-11035	Instrument ID:	SEA015
Preparation:	3510C	Prep Batch: 580-10997	Lab File ID:	PL13822.D
Dilution:	1.0		Initial Weight/Volume:	970 mL
Date Analyzed:	09/19/2006 1727		Final Weight/Volume:	5 mL
Date Prepared:	09/19/2006 0921		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (mg/L)	Qualifier	MDL	RL
Motor Oil (>C24-C36)	ND		0.062	0.52
#2 Diesel (C10-C24)	ND		0.033	0.26
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	104		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-020**

Lab Sample ID: 580-3591-2

Date Sampled: 09/14/2006 1105

Client Matrix: Solid

% Moisture: 2.2

Date Received: 09/15/2006 1830

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.1889 g

Date Analyzed: 09/25/2006 1253

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		3.7		0.19	2.1
Lead		8.3		0.034	0.64
Cadmium		ND		0.0035	0.21
Chromium		18		0.0092	0.43

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6182 g

Date Analyzed: 09/26/2006 1117

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		ND		0.0074	0.017

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP13-060914-060**

Lab Sample ID: 580-3591-4

Date Sampled: 09/14/2006 1115

Client Matrix: Solid

% Moisture: 13.6

Date Received: 09/15/2006 1830

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.1589 g

Date Analyzed: 09/25/2006 1330

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		3.0		0.22	2.5
Lead		2.0		0.039	0.75
Cadmium		ND		0.0041	0.25
Chromium		16		0.011	0.50

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6540 g

Date Analyzed: 09/26/2006 1141

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		ND		0.0080	0.018

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP13-060914-W

Lab Sample ID: 580-3591-6  
Client Matrix: Water

Date Sampled: 09/14/2006 1130  
Date Received: 09/15/2006 1830

---

#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method:	6020	Analysis Batch: 580-11189	Instrument ID:	SEA026
Preparation:	3005A	Prep Batch: 580-11145	Lab File ID:	N/A
Dilution:	5.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/25/2006 0917		Final Weight/Volume:	50 mL
Date Prepared:	09/22/2006 1436			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.00037	0.0020
Lead	ND		0.000016	0.0020
Cadmium	ND		0.000037	0.0020
Chromium	0.0055		0.00014	0.0020

---

#### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method:	7470A	Analysis Batch: 580-11262	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch: 580-11187	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/26/2006 0931		Final Weight/Volume:	50 mL
Date Prepared:	09/25/2006 1601			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000055	0.00020

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP13-060914-WDUP

Lab Sample ID: 580-3591-7  
Client Matrix: Water

Date Sampled: 09/14/2006 1140  
Date Received: 09/15/2006 1830

---

#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method:	6020	Analysis Batch: 580-11189	Instrument ID:	SEA026
Preparation:	3005A	Prep Batch: 580-11145	Lab File ID:	N/A
Dilution:	5.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/25/2006 0921		Final Weight/Volume:	50 mL
Date Prepared:	09/22/2006 1436			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.00037	0.0020
Lead	ND		0.000016	0.0020
Cadmium	ND		0.000037	0.0020
Chromium	0.0051		0.00014	0.0020

---

#### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method:	7470A	Analysis Batch: 580-11262	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch: 580-11187	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/26/2006 0951		Final Weight/Volume:	50 mL
Date Prepared:	09/25/2006 1601			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000055	0.00020

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-040**

Lab Sample ID: 580-3591-8

Date Sampled: 09/14/2006 1240

Client Matrix: Solid

% Moisture: 10.7

Date Received: 09/15/2006 1830

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.2785 g

Date Analyzed: 09/25/2006 1334

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		6.4		0.19	2.2
Lead		4.6		0.034	0.66
Cadmium		ND		0.0036	0.22
Chromium		19		0.0094	0.44

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6697 g

Date Analyzed: 09/26/2006 1146

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.025	B	0.0075	0.017

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP14-060914-060**

Lab Sample ID: 580-3591-9

Date Sampled: 09/14/2006 1245

Client Matrix: Solid

% Moisture: 17.3

Date Received: 09/15/2006 1830

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.2665 g

Date Analyzed: 09/25/2006 1338

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		3.0		0.21	2.4
Lead		1.8		0.038	0.72
Cadmium		ND		0.0039	0.24
Chromium		16		0.010	0.48

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6621 g

Date Analyzed: 09/26/2006 1150

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		ND		0.0082	0.018

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP14-060914-W

Lab Sample ID: 580-3591-11  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

---

#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method:	6020	Analysis Batch: 580-11189	Instrument ID:	SEA026
Preparation:	3005A	Prep Batch: 580-11145	Lab File ID:	N/A
Dilution:	5.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/25/2006 0925		Final Weight/Volume:	50 mL
Date Prepared:	09/22/2006 1436			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.00037	0.0020
Lead	0.000050	J B	0.000016	0.0020
Cadmium	ND		0.000037	0.0020
Chromium	0.0060		0.00014	0.0020

---

#### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method:	7470A	Analysis Batch: 580-11262	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch: 580-11187	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/26/2006 0956		Final Weight/Volume:	50 mL
Date Prepared:	09/25/2006 1601			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000055	0.00020

---



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP15-060914-020

Lab Sample ID: 580-3591-13

Date Sampled: 09/14/2006 1405

Client Matrix: Solid

% Moisture: 10.5

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.2817 g

Date Analyzed: 09/25/2006 1342

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		9.4		0.19	2.2
Lead		86		0.034	0.65
Cadmium		ND		0.0036	0.22
Chromium		18		0.0093	0.44

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.5468 g

Date Analyzed: 09/26/2006 1155

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.10	B	0.0092	0.020

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP15-060914-060

Lab Sample ID: 580-3591-15

Date Sampled: 09/14/2006 1415

Client Matrix: Solid

% Moisture: 14.7

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.0575 g

Date Analyzed: 09/25/2006 1346

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		3.1		0.25	2.8
Lead		1.4		0.044	0.83
Cadmium		ND		0.0045	0.28
Chromium		14		0.012	0.55

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.5227 g

Date Analyzed: 09/26/2006 1200

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.022	J B	0.010	0.022

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP15-060914-W

Lab Sample ID: 580-3591-17  
Client Matrix: Water

Date Sampled: 09/14/2006 1430  
Date Received: 09/15/2006 1830

---

#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method:	6020	Analysis Batch: 580-11189	Instrument ID:	SEA026
Preparation:	3005A	Prep Batch: 580-11145	Lab File ID:	N/A
Dilution:	5.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/25/2006 0929		Final Weight/Volume:	50 mL
Date Prepared:	09/22/2006 1436			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.00037	0.0020
Lead	ND		0.000016	0.0020
Cadmium	ND		0.000037	0.0020
Chromium	0.0052		0.00014	0.0020

---

#### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method:	7470A	Analysis Batch: 580-11262	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch: 580-11187	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/26/2006 1000		Final Weight/Volume:	50 mL
Date Prepared:	09/25/2006 1601			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000055	0.00020

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP16-060914-020

Lab Sample ID: 580-3591-19

Date Sampled: 09/14/2006 1505

Client Matrix: Solid

% Moisture: 9.8

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.1169 g

Date Analyzed: 09/25/2006 1350

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		16		0.22	2.5
Lead		350		0.039	0.74
Cadmium		ND		0.0041	0.25
Chromium		18		0.011	0.50

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.5250 g

Date Analyzed: 09/26/2006 1215

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		ND		0.0095	0.021

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP16-060914-060**

Lab Sample ID: 580-3591-21

Date Sampled: 09/14/2006 1515

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.0825 g

Date Analyzed: 09/25/2006 1354

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		3.0		0.24	2.6
Lead		2.2		0.042	0.79
Cadmium		ND		0.0043	0.26
Chromium		15		0.011	0.53

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6605 g

Date Analyzed: 09/26/2006 1219

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		ND		0.0078	0.017

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP16-060914-W

Lab Sample ID: 580-3591-23  
Client Matrix: Water

Date Sampled: 09/14/2006 1315  
Date Received: 09/15/2006 1830

---

#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method:	6020	Analysis Batch: 580-11189	Instrument ID:	SEA026
Preparation:	3005A	Prep Batch: 580-11145	Lab File ID:	N/A
Dilution:	5.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/25/2006 0933		Final Weight/Volume:	50 mL
Date Prepared:	09/22/2006 1436			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.00037	0.0020
Lead	ND		0.000016	0.0020
Cadmium	ND		0.000037	0.0020
Chromium	0.0053		0.00014	0.0020

---

#### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method:	7470A	Analysis Batch: 580-11262	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch: 580-11187	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/26/2006 1005		Final Weight/Volume:	50 mL
Date Prepared:	09/25/2006 1601			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000055	0.00020

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP17-060914-020

Lab Sample ID: 580-3591-25

Date Sampled: 09/14/2006 1545

Client Matrix: Solid

% Moisture: 5.5

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.1356 g

Date Analyzed: 09/25/2006 1358

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		23		0.21	2.3
Lead		840		0.037	0.70
Cadmium		ND		0.0038	0.23
Chromium		45		0.010	0.47

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.7057 g

Date Analyzed: 09/26/2006 1224

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.024	B	0.0067	0.015

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP17-060914-060**

Lab Sample ID: 580-3591-27

Date Sampled: 09/14/2006 1600

Client Matrix: Solid

% Moisture: 12.8

Date Received: 09/15/2006 1830

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.0729 g

Date Analyzed: 09/25/2006 1412

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.6	J	0.24	2.7
Lead		9.2		0.042	0.80
Cadmium		ND		0.0044	0.27
Chromium		15		0.011	0.53

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6188 g

Date Analyzed: 09/26/2006 1229

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.023	B	0.0083	0.019

---



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP17-060914-W

Lab Sample ID: 580-3591-29  
Client Matrix: Water

Date Sampled: 09/14/2006 1610  
Date Received: 09/15/2006 1830

---

#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method:	6020	Analysis Batch: 580-11189	Instrument ID:	SEA026
Preparation:	3005A	Prep Batch: 580-11145	Lab File ID:	N/A
Dilution:	5.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/25/2006 0937		Final Weight/Volume:	50 mL
Date Prepared:	09/22/2006 1436			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.00037	0.0020
Lead	ND		0.000016	0.0020
Cadmium	ND		0.000037	0.0020
Chromium	0.0048		0.00014	0.0020

---

#### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method:	7470A	Analysis Batch: 580-11262	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch: 580-11187	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/26/2006 1010		Final Weight/Volume:	50 mL
Date Prepared:	09/25/2006 1601			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000055	0.00020

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP09-060915-W

Lab Sample ID: 580-3591-30  
Client Matrix: Water

Date Sampled: 09/15/2006 1230  
Date Received: 09/15/2006 1830

---

#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method:	6020	Analysis Batch: 580-11189	Instrument ID:	SEA026
Preparation:	3005A	Prep Batch: 580-11145	Lab File ID:	N/A
Dilution:	5.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/25/2006 0942		Final Weight/Volume:	50 mL
Date Prepared:	09/22/2006 1436			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	0.00049	J	0.00037	0.0020
Lead	0.000085	J B	0.000016	0.0020
Cadmium	ND		0.000037	0.0020
Chromium	0.0058		0.00014	0.0020

---

#### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method:	7470A	Analysis Batch: 580-11262	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch: 580-11187	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/26/2006 1024		Final Weight/Volume:	50 mL
Date Prepared:	09/25/2006 1601			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000055	0.00020

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP12-060915-020

Lab Sample ID: 580-3591-32

Date Sampled: 09/15/2006 0825

Client Matrix: Solid

% Moisture: 15.7

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.0940 g

Date Analyzed: 09/25/2006 1416

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		4.2		0.24	2.7
Lead		8.9		0.043	0.81
Cadmium		ND		0.0044	0.27
Chromium		21		0.012	0.54

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6730 g

Date Analyzed: 09/26/2006 1234

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.080	B	0.0079	0.018

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP12-060915-040

Lab Sample ID: 580-3591-33

Date Sampled: 09/15/2006 0830

Client Matrix: Solid

% Moisture: 13.7

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11184

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11162

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.2727 g

Date Analyzed: 09/25/2006 1420

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 0933

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		4.7		0.20	2.3
Lead		14		0.036	0.68
Cadmium		ND		0.0037	0.23
Chromium		23		0.0097	0.46

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11260

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11176

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6678 g

Date Analyzed: 09/26/2006 1239

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1245

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.058	B	0.0078	0.017

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP11-060915-020

Lab Sample ID: 580-3591-37

Client Matrix: Solid

% Moisture: 5.8

Date Sampled: 09/15/2006 0905

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Preparation: 3050B

Dilution: 1.0

Date Analyzed: 09/26/2006 1051

Date Prepared: 09/25/2006 1110

Analysis Batch: 580-11221

Prep Batch: 580-11170

Instrument ID: SEA027

Lab File ID: N/A

Initial Weight/Volume: 1.1126 g

Final Weight/Volume: 50 mL

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		3.3		0.21	2.4
Lead		8.3		0.038	0.72
Cadmium		ND		0.0039	0.24
Chromium		15		0.010	0.48

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Preparation: 7471A

Dilution: 1.0

Date Analyzed: 09/26/2006 1530

Date Prepared: 09/25/2006 1403

Analysis Batch: 580-11261

Prep Batch: 580-11178

Instrument ID: SEA029

Lab File ID: N/A

Initial Weight/Volume: 0.6761 g

Final Weight/Volume: 50 mL

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.018	B	0.0071	0.016

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP11-060915-060

Lab Sample ID: 580-3591-39

Date Sampled: 09/15/2006 0915

Client Matrix: Solid

% Moisture: 66.9

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11221

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11170

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.0495 g

Date Analyzed: 09/26/2006 1131

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1110

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		17		0.64	7.2
Lead		18		0.11	2.2
Cadmium		ND		0.012	0.72
Chromium		14		0.031	1.4

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11261

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11178

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6859 g

Date Analyzed: 09/26/2006 1555

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1403

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.040	J B	0.020	0.044

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP11-060915-080

Lab Sample ID: 580-3591-40

Date Sampled: 09/15/2006 0920

Client Matrix: Solid

% Moisture: 23.0

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11221

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-11170

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.3555 g

Date Analyzed: 09/26/2006 1135

Final Weight/Volume: 50 mL

Date Prepared: 09/25/2006 1110

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		5.9		0.21	2.4
Lead		6.8		0.038	0.72
Cadmium		ND		0.0039	0.24
Chromium		27		0.010	0.48

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11261

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-11178

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.7830 g

Date Analyzed: 09/26/2006 1600

Final Weight/Volume: 50 mL

Date Prepared: 09/25/2006 1403

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.039	B	0.0075	0.017

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP11-060915-080DUP

Lab Sample ID: 580-3591-41

Date Sampled: 09/15/2006 0925

Client Matrix: Solid

% Moisture: 15.1

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11221

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11170

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.1251 g

Date Analyzed: 09/26/2006 1139

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1110

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		6.0		0.23	2.6
Lead		2.6		0.041	0.78
Cadmium		ND		0.0043	0.26
Chromium		24		0.011	0.52

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11261

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11178

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.5531 g

Date Analyzed: 09/26/2006 1605

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1403

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.018	J B	0.0096	0.021

---



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP10-060915-020

Lab Sample ID: 580-3591-43

Date Sampled: 09/15/2006 1020

Client Matrix: Solid

% Moisture: 20.0

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11221

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11170

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.2477 g

Date Analyzed: 09/26/2006 1143

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1110

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		4.1		0.22	2.5
Lead		44		0.039	0.75
Cadmium		ND		0.0041	0.25
Chromium		26		0.011	0.50

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11261

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11178

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6406 g

Date Analyzed: 09/26/2006 1633

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1403

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.069	B	0.0088	0.020

---

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP10-060915-060**

Lab Sample ID: 580-3591-45

Date Sampled: 09/15/2006 1030

Client Matrix: Solid

% Moisture: 53.5

Date Received: 09/15/2006 1830

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11221

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-11170

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.1174 g

Date Analyzed: 09/26/2006 1147

Final Weight/Volume: 50 mL

Date Prepared: 09/25/2006 1110

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		7.2		0.43	4.8
Lead		6.6		0.076	1.4
Cadmium		ND		0.0079	0.48
Chromium		36		0.021	0.96

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11261

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-11178

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5515 g

Date Analyzed: 09/26/2006 1638

Final Weight/Volume: 50 mL

Date Prepared: 09/25/2006 1403

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		ND		0.018	0.039

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP10-060915-W

Lab Sample ID: 580-3591-47  
Client Matrix: Water

Date Sampled: 09/15/2006 1045  
Date Received: 09/15/2006 1830

---

#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method:	6020	Analysis Batch: 580-11189	Instrument ID:	SEA026
Preparation:	3005A	Prep Batch: 580-11145	Lab File ID:	N/A
Dilution:	5.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/25/2006 0954		Final Weight/Volume:	50 mL
Date Prepared:	09/22/2006 1436			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.00037	0.0020
Lead	0.000060	J B	0.000016	0.0020
Cadmium	ND		0.000037	0.0020
Chromium	0.0075		0.00014	0.0020

---

#### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method:	7470A	Analysis Batch: 580-11262	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch: 580-11187	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/26/2006 1029		Final Weight/Volume:	50 mL
Date Prepared:	09/25/2006 1601			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	0.00012	J B	0.000055	0.00020

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP09-060915-020

Lab Sample ID: 580-3591-49

Date Sampled: 09/15/2006 1155

Client Matrix: Solid

% Moisture: 6.7

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11221

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11170

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.0641 g

Date Analyzed: 09/26/2006 1151

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1110

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		6.0		0.22	2.5
Lead		68		0.040	0.76
Cadmium		ND		0.0041	0.25
Chromium		18		0.011	0.50

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11261

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11178

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.7141 g

Date Analyzed: 09/26/2006 1643

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1403

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.20	B	0.0068	0.015

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Client Sample ID: PP09-060915-060**

Lab Sample ID: 580-3591-51

Date Sampled: 09/15/2006 1205

Client Matrix: Solid

% Moisture: 19.9

Date Received: 09/15/2006 1830

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11221

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11170

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.0679 g

Date Analyzed: 09/26/2006 1155

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1110

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		5.0		0.26	2.9
Lead		6.7		0.046	0.88
Cadmium		ND		0.0048	0.29
Chromium		24		0.013	0.58

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11261

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11178

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.7878 g

Date Analyzed: 09/26/2006 1649

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1403

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.084	B	0.0071	0.016

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP09-060915-060DUP

Lab Sample ID: 580-3591-52      Date Sampled: 09/15/2006 1210  
Client Matrix: Solid      % Moisture: 27.0      Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B      Analysis Batch: 580-11221      Instrument ID: SEA027  
Preparation: 3050B      Prep Batch: 580-11170      Lab File ID: N/A  
Dilution: 1.0      Initial Weight/Volume: 1.0600 g  
Date Analyzed: 09/26/2006 1159      Final Weight/Volume: 50 mL  
Date Prepared: 09/25/2006 1110

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		6.0		0.29	3.2
Lead		79		0.051	0.97
Cadmium		ND		0.0053	0.32
Chromium		24		0.014	0.65

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A      Analysis Batch: 580-11261      Instrument ID: SEA029  
Preparation: 7471A      Prep Batch: 580-11178      Lab File ID: N/A  
Dilution: 1.0      Initial Weight/Volume: 0.6851 g  
Date Analyzed: 09/26/2006 1654      Final Weight/Volume: 50 mL  
Date Prepared: 09/25/2006 1403

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.15	B	0.0090	0.020

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP09-060915-080

Lab Sample ID: 580-3591-53

Date Sampled: 09/15/2006 1215

Client Matrix: Solid

% Moisture: 22.4

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11221

Instrument ID:

SEA027

Preparation: 3050B

Prep Batch: 580-11170

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

1.1030 g

Date Analyzed: 09/26/2006 1215

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1110

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		5.4		0.26	2.9
Lead		4.8		0.046	0.88
Cadmium		ND		0.0048	0.29
Chromium		27		0.012	0.58

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11261

Instrument ID:

SEA029

Preparation: 7471A

Prep Batch: 580-11178

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.6198 g

Date Analyzed: 09/26/2006 1659

Final Weight/Volume:

50 mL

Date Prepared: 09/25/2006 1403

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.020	J B	0.0094	0.021

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP09-060915-080DUP

Lab Sample ID: 580-3591-54

Date Sampled: 09/15/2006 1220

Client Matrix: Solid

% Moisture: 23.7

Date Received: 09/15/2006 1830

---

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-11221

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-11170

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.1879 g

Date Analyzed: 09/26/2006 1219

Final Weight/Volume: 50 mL

Date Prepared: 09/25/2006 1110

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		6.8		0.25	2.8
Lead		3.8		0.043	0.83
Cadmium		ND		0.0045	0.28
Chromium		25		0.012	0.55

---

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-11261

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-11178

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.6337 g

Date Analyzed: 09/26/2006 1704

Final Weight/Volume: 50 mL

Date Prepared: 09/25/2006 1403

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Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		ND		0.0093	0.021

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## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP11-060915-W

Lab Sample ID: 580-3591-55  
Client Matrix: Water

Date Sampled: 09/15/2006 1000  
Date Received: 09/15/2006 1830

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#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method:	6020	Analysis Batch: 580-11189	Instrument ID:	SEA026
Preparation:	3005A	Prep Batch: 580-11145	Lab File ID:	N/A
Dilution:	5.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/25/2006 0958		Final Weight/Volume:	50 mL
Date Prepared:	09/22/2006 1436			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	0.0034		0.00037	0.0020
Lead	ND		0.000016	0.0020
Cadmium	ND		0.000037	0.0020
Chromium	0.0085		0.00014	0.0020

---

#### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method:	7470A	Analysis Batch: 580-11262	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch: 580-11187	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/26/2006 1034		Final Weight/Volume:	50 mL
Date Prepared:	09/25/2006 1601			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000055	0.00020

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Client Sample ID: PP12-060915-W

Lab Sample ID: 580-3591-56  
Client Matrix: Water

Date Sampled: 09/15/2006 0905  
Date Received: 09/15/2006 1830

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#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method:	6020	Analysis Batch: 580-11189	Instrument ID:	SEA026
Preparation:	3005A	Prep Batch: 580-11145	Lab File ID:	N/A
Dilution:	5.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/25/2006 1002		Final Weight/Volume:	50 mL
Date Prepared:	09/22/2006 1436			

---

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.00037	0.0020
Lead	ND		0.000016	0.0020
Cadmium	ND		0.000037	0.0020
Chromium	0.0069		0.00014	0.0020

---

#### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method:	7470A	Analysis Batch: 580-11262	Instrument ID:	SEA029
Preparation:	7470A	Prep Batch: 580-11187	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	09/26/2006 1038		Final Weight/Volume:	50 mL
Date Prepared:	09/25/2006 1601			

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Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000055	0.00020

---

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11150**

**Method: 8260B**

**Preparation: 5030B**

Lab Sample ID: MB 580-11150/3  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 09/22/2006 1406  
 Date Prepared: 09/22/2006 1406

Analysis Batch: 580-11150  
 Prep Batch: N/A  
 Units: ug/L

Instrument ID: SEA043  
 Lab File ID: VB0001205.D  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Dichlorodifluoromethane	ND		0.13	1.0
Chloromethane	ND		0.18	1.0
Vinyl chloride	ND		0.18	1.0
Bromomethane	ND		0.23	1.0
Chloroethane	ND		0.17	5.0
Trichlorofluoromethane	ND		0.088	1.0
1,1-Dichloroethene	ND		0.098	1.0
Methylene Chloride	ND		0.090	1.0
trans-1,2-Dichloroethene	ND		0.074	1.0
1,1-Dichloroethane	ND		0.11	1.0
2,2-Dichloropropane	ND		0.17	1.0
cis-1,2-Dichloroethene	ND		0.079	1.0
Chlorobromomethane	ND		0.12	1.0
Chloroform	ND		0.067	1.0
1,1,1-Trichloroethane	ND		0.11	1.0
Carbon tetrachloride	ND		0.070	1.0
1,1-Dichloropropene	ND		0.080	1.0
Benzene	ND		0.10	1.0
1,2-Dichloroethane	ND		0.20	1.0
Trichloroethene	ND		0.074	1.0
1,2-Dichloropropane	ND		0.092	1.0
Dibromomethane	ND		0.080	1.0
Dichlorobromomethane	ND		0.076	1.0
cis-1,3-Dichloropropene	ND		0.064	1.0
Toluene	ND		0.066	1.0
trans-1,3-Dichloropropene	ND		0.082	1.0
1,1,2-Trichloroethane	ND		0.076	1.0
Tetrachloroethene	ND		0.088	1.0
1,3-Dichloropropane	ND		0.10	1.0
Chlorodibromomethane	ND		0.11	1.0
Ethylene Dibromide	ND		0.076	1.0
Chlorobenzene	ND		0.057	1.0
Ethylbenzene	ND		0.085	1.0
1,1,1,2-Tetrachloroethane	ND		0.073	1.0
1,1,2,2-Tetrachloroethane	ND		0.11	1.0
m-Xylene & p-Xylene	ND		0.17	2.0
o-Xylene	ND		0.068	1.0
Styrene	ND		0.061	1.0
Bromoform	ND		0.076	1.0
Isopropylbenzene	ND		0.084	1.0
Bromobenzene	ND		0.079	1.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11150**

**Method: 8260B  
Preparation: 5030B**

Lab Sample ID: MB 580-11150/3  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 09/22/2006 1406  
 Date Prepared: 09/22/2006 1406

Analysis Batch: 580-11150  
 Prep Batch: N/A  
 Units: ug/L

Instrument ID: SEA043  
 Lab File ID: VB0001205.D  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
N-Propylbenzene	ND		0.069	1.0
1,2,3-Trichloropropane	ND		0.081	1.0
2-Chlorotoluene	ND		0.060	1.0
1,3,5-Trimethylbenzene	ND		0.077	1.0
4-Chlorotoluene	ND		0.098	1.0
tert-Butylbenzene	ND		0.045	1.0
1,2,4-Trimethylbenzene	ND		0.086	1.0
sec-Butylbenzene	ND		0.035	1.0
1,3-Dichlorobenzene	ND		0.040	1.0
4-Isopropyltoluene	ND		0.077	1.0
1,4-Dichlorobenzene	ND		0.052	1.0
n-Butylbenzene	ND		0.098	1.0
1,2-Dichlorobenzene	ND		0.070	1.0
1,2-Dibromo-3-Chloropropane	ND		0.43	2.0
1,2,4-Trichlorobenzene	ND		0.046	1.0
1,2,3-Trichlorobenzene	ND		0.071	1.0
Hexachlorobutadiene	ND		0.14	1.0
Naphthalene	ND		0.070	1.0
Surrogate	% Rec	Acceptance Limits		
Fluorobenzene (Surr)	104	80 - 120		
Toluene-d8 (Surr)	103	80 - 120		
Ethylbenzene-d10	102	80 - 120		
4-Bromofluorobenzene (Surr)	93	80 - 120		
Trifluorotoluene (Surr)	82	80 - 120		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11150**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID: LCS 580-11150/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/22/2006 1254  
Date Prepared: 09/22/2006 1254

Analysis Batch: 580-11150  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA043  
Lab File ID: VB0001199.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 580-11150/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/22/2006 1318  
Date Prepared: 09/22/2006 1318

Analysis Batch: 580-11150  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA043  
Lab File ID: VB0001201.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Dichlorodifluoromethane	65	69	30 - 155	5	20		
Chloromethane	91	89	40 - 125	2	20		
Vinyl chloride	87	88	50 - 145	1	20		
Bromomethane	59	62	30 - 145	5	20		
Chloroethane	84	96	60 - 135	13	20	J	J
Trichlorofluoromethane	97	104	60 - 145	7	20		
1,1-Dichloroethene	95	103	70 - 130	8	15		
Methylene Chloride	98	100	55 - 140	2	20		
trans-1,2-Dichloroethene	99	102	60 - 140	4	20		
1,1-Dichloroethane	100	102	70 - 135	3	20		
2,2-Dichloropropane	96	93	70 - 135	3	20		
cis-1,2-Dichloroethene	96	99	70 - 125	3	20		
Chlorobromomethane	101	105	65 - 130	4	20		
Chloroform	96	103	65 - 135	7	20		
1,1,1-Trichloroethane	97	102	65 - 130	5	20		
Carbon tetrachloride	94	93	65 - 140	1	20		
1,1-Dichloropropene	97	99	75 - 130	2	20		
Benzene	97	100	80 - 120	3	12		
1,2-Dichloroethane	102	100	70 - 130	2	20		
Trichloroethene	88	90	75 - 125	2	13		
1,2-Dichloropropane	90	89	75 - 125	1	20		
Dibromomethane	99	100	75 - 125	1	20		
Dichlorobromomethane	97	96	75 - 120	1	20		
cis-1,3-Dichloropropene	95	91	70 - 130	5	20		
Toluene	98	95	75 - 120	3	12		
trans-1,3-Dichloropropene	80	77	55 - 140	4	20		
1,1,2-Trichloroethane	95	99	75 - 125	4	20		
Tetrachloroethene	89	97	45 - 150	9	20		
1,3-Dichloropropane	101	101	75 - 125	1	20		
Chlorodibromomethane	90	90	60 - 135	0	20		
Ethylene Dibromide	100	100	80 - 120	0	20		
Chlorobenzene	96	95	80 - 120	2	13		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11150**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID: LCS 580-11150/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/22/2006 1254  
Date Prepared: 09/22/2006 1254

Analysis Batch: 580-11150  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA043  
Lab File ID: VB0001199.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 580-11150/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/22/2006 1318  
Date Prepared: 09/22/2006 1318

Analysis Batch: 580-11150  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA043  
Lab File ID: VB0001201.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ethylbenzene	98	99	75 - 125	0	20		
1,1,1,2-Tetrachloroethane	87	90	80 - 130	3	20		
1,1,2,2-Tetrachloroethane	94	96	65 - 130	3	20		
m-Xylene & p-Xylene	94	96	75 - 130	2	20		
o-Xylene	97	97	80 - 120	0	20		
Styrene	90	92	65 - 135	2	20		
Bromoform	91	87	70 - 130	5	20		
Isopropylbenzene	95	98	80 - 125	4	20		
Bromobenzene	90	91	75 - 125	1	20		
N-Propylbenzene	99	99	70 - 130	1	20		
1,2,3-Trichloropropane	90	92	75 - 125	1	20		
2-Chlorotoluene	92	93	75 - 125	1	20		
1,3,5-Trimethylbenzene	92	93	75 - 130	2	20		
4-Chlorotoluene	90	98	75 - 130	9	20		
tert-Butylbenzene	94	95	70 - 130	1	20		
1,2,4-Trimethylbenzene	94	99	75 - 130	5	20		
sec-Butylbenzene	94	94	70 - 125	0	20		
1,3-Dichlorobenzene	89	92	75 - 125	2	20		
4-Isopropyltoluene	88	88	75 - 130	0	20		
1,4-Dichlorobenzene	92	93	75 - 125	1	20		
n-Butylbenzene	89	91	70 - 135	2	20		
1,2-Dichlorobenzene	94	95	70 - 120	1	20		
1,2-Dibromo-3-Chloropropane	85	91	50 - 130	8	20		
1,2,4-Trichlorobenzene	93	94	65 - 135	1	20		
1,2,3-Trichlorobenzene	95	91	55 - 140	4	20		
Hexachlorobutadiene	84	88	50 - 140	4	20		
Naphthalene	94	95	55 - 140	1	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Fluorobenzene (Surr)	105		106		80 - 120		
Toluene-d8 (Surr)	104		103		80 - 120		
Ethylbenzene-d10	105		105		80 - 120		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	97	96	80 - 120
Trifluorotoluene (Surr)	87	87	80 - 120

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

### Method Blank - Batch: 580-11201

Method: 8260B  
Preparation: N/A

Lab Sample ID: MB 580-11201/3  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1150  
Date Prepared: N/A

Analysis Batch: 580-11201  
Prep Batch: N/A  
Units: ug/Kg

Instrument ID: SEA043  
Lab File ID: VB0001285.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Dichlorodifluoromethane	ND		0.14	1.0
Chloromethane	ND		0.18	1.0
Vinyl chloride	ND		0.13	0.40
Bromomethane	ND		0.70	5.0
Chloroethane	ND		0.73	5.0
Trichlorofluoromethane	ND		0.095	1.0
1,1-Dichloroethene	ND		0.13	0.40
Methylene Chloride	ND		0.15	1.0
trans-1,2-Dichloroethene	ND		0.11	1.0
1,1-Dichloroethane	ND		0.24	1.0
2,2-Dichloropropane	ND		0.12	1.0
cis-1,2-Dichloroethene	ND		0.15	1.0
Chlorobromomethane	ND		0.12	1.0
Chloroform	ND		0.095	1.0
1,1,1-Trichloroethane	ND		0.098	0.40
Carbon tetrachloride	ND		0.075	0.40
1,1-Dichloropropene	ND		0.078	1.0
Benzene	ND		0.070	0.20
1,2-Dichloroethane	ND		0.20	1.0
Trichloroethene	ND		0.075	0.40
1,2-Dichloropropane	ND		0.063	0.20
Dibromomethane	ND		0.18	1.0
Dichlorobromomethane	ND		0.070	1.0
cis-1,3-Dichloropropene	ND		0.070	1.0
Toluene	ND		0.19	1.0
trans-1,3-Dichloropropene	ND		0.070	1.0
1,1,2-Trichloroethane	ND		0.090	1.0
Tetrachloroethene	ND		0.18	0.63
1,3-Dichloropropane	ND		0.11	0.40
Chlorodibromomethane	ND		0.063	1.0
Ethylene Dibromide	ND		0.17	1.0
Chlorobenzene	ND		0.30	1.0
Ethylbenzene	ND		0.18	1.0
1,1,1,2-Tetrachloroethane	ND		0.095	1.0
1,1,2,2-Tetrachloroethane	ND		0.060	0.20
m-Xylene & p-Xylene	ND		0.38	1.0
o-Xylene	ND		0.18	1.0
Styrene	ND		0.080	1.0
Bromoform	ND		0.070	1.0
Isopropylbenzene	ND		0.15	1.0
Bromobenzene	ND		0.090	1.0

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11201**

**Method: 8260B**  
**Preparation: N/A**

Lab Sample ID: MB 580-11201/3  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1150  
Date Prepared: N/A

Analysis Batch: 580-11201  
Prep Batch: N/A  
Units: ug/Kg

Instrument ID: SEA043  
Lab File ID: VB0001285.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
N-Propylbenzene	ND		0.17	1.0
1,2,3-Trichloropropane	ND		0.18	1.0
2-Chlorotoluene	ND		0.15	1.0
1,3,5-Trimethylbenzene	ND		0.15	1.0
4-Chlorotoluene	ND		0.088	1.0
tert-Butylbenzene	ND		0.085	1.0
1,2,4-Trimethylbenzene	ND		0.17	1.0
sec-Butylbenzene	ND		0.040	1.0
1,3-Dichlorobenzene	ND		0.10	1.0
4-Isopropyltoluene	ND		0.070	1.0
1,4-Dichlorobenzene	ND		0.050	1.0
n-Butylbenzene	ND		0.060	1.0
1,2-Dichlorobenzene	ND		0.085	1.0
1,2-Dibromo-3-Chloropropane	ND		0.22	1.0
1,2,4-Trichlorobenzene	ND		0.098	1.0
1,2,3-Trichlorobenzene	ND		0.12	1.0
Hexachlorobutadiene	ND		0.17	1.0
Naphthalene	ND		0.065	1.0
Surrogate	% Rec	Acceptance Limits		
Fluorobenzene (Surr)	108	75 - 125		
Toluene-d8 (Surr)	102	75 - 125		
Ethylbenzene-d10	101	75 - 125		
4-Bromofluorobenzene (Surr)	92	75 - 125		
Trifluorotoluene (Surr)				

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11201**

**Method: 8260B  
Preparation: N/A**

LCS Lab Sample ID: LCS 580-11201/1  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1039  
Date Prepared: N/A

Analysis Batch: 580-11201  
Prep Batch: N/A  
Units: ug/Kg

Instrument ID: SEA043  
Lab File ID: VB0001279.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 580-11201/2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1103  
Date Prepared: N/A

Analysis Batch: 580-11201  
Prep Batch: N/A  
Units: ug/Kg

Instrument ID: SEA043  
Lab File ID: VB0001281.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Dichlorodifluoromethane	67	62	35 - 135	8	20		
Chloromethane	92	88	50 - 130	5	20		
Vinyl chloride	87	86	60 - 125	0	20		
Bromomethane	24	20	30 - 160	20	20	J *	J *
Chloroethane	36	32	40 - 155	13	20	J *	J *
Trichlorofluoromethane	101	93	25 - 185	9	20		
1,1-Dichloroethene	95	93	65 - 135	1	26		
Methylene Chloride	100	96	55 - 140	4	20		
trans-1,2-Dichloroethene	103	94	65 - 135	9	20		
1,1-Dichloroethane	104	99	75 - 125	4	20		
2,2-Dichloropropane	94	87	65 - 135	8	20		
cis-1,2-Dichloroethene	97	95	65 - 125	2	20		
Chlorobromomethane	98	103	70 - 125	5	20		
Chloroform	100	96	70 - 125	4	20		
1,1,1-Trichloroethane	93	95	70 - 135	2	20		
Carbon tetrachloride	82	74	65 - 135	9	20		
1,1-Dichloropropene	96	93	70 - 135	4	20		
Benzene	102	99	75 - 125	3	22		
1,2-Dichloroethane	105	102	70 - 135	4	20		
Trichloroethene	89	89	75 - 125	0	28		
1,2-Dichloropropane	98	94	70 - 120	4	20		
Dibromomethane	89	88	75 - 130	1	20		
Dichlorobromomethane	84	80	70 - 130	5	20		
cis-1,3-Dichloropropene	87	85	70 - 125	3	20		
Toluene	97	96	70 - 125	1	21		
trans-1,3-Dichloropropene	71	70	65 - 125	0	20		
1,1,2-Trichloroethane	90	93	60 - 125	4	20		
Tetrachloroethene	94	90	65 - 140	3	20		
1,3-Dichloropropane	98	101	75 - 125	3	20		
Chlorodibromomethane	70	69	65 - 130	1	20		
Ethylene Dibromide	95	93	70 - 125	2	20		
Chlorobenzene	95	92	75 - 125	3	24		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11201**

**Method: 8260B  
Preparation: N/A**

LCS Lab Sample ID: LCS 580-11201/1  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1039  
Date Prepared: N/A

Analysis Batch: 580-11201  
Prep Batch: N/A  
Units: ug/Kg

Instrument ID: SEA043  
Lab File ID: VB0001279.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 580-11201/2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1103  
Date Prepared: N/A

Analysis Batch: 580-11201  
Prep Batch: N/A  
Units: ug/Kg

Instrument ID: SEA043  
Lab File ID: VB0001281.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ethylbenzene	100	98	75 - 125	2	20		
1,1,1,2-Tetrachloroethane	75	73	75 - 125	3	20		*
1,1,2,2-Tetrachloroethane	87	86	55 - 130	1	20		
m-Xylene & p-Xylene	95	94	80 - 125	1	20		
o-Xylene	94	93	75 - 125	1	20		
Styrene	88	90	75 - 125	2	20		
Bromoform	64	56	55 - 135	13	20		
Isopropylbenzene	95	97	75 - 130	2	20		
Bromobenzene	86	92	65 - 120	6	20		
N-Propylbenzene	109	104	65 - 135	5	20		
1,2,3-Trichloropropane	93	87	65 - 130	7	20		
2-Chlorotoluene	93	92	70 - 130	1	20		
1,3,5-Trimethylbenzene	93	95	65 - 135	2	20		
4-Chlorotoluene	91	92	75 - 125	1	20		
tert-Butylbenzene	93	96	65 - 130	3	20		
1,2,4-Trimethylbenzene	96	94	65 - 135	2	20		
sec-Butylbenzene	95	93	65 - 130	2	20		
1,3-Dichlorobenzene	90	91	70 - 125	2	20		
4-Isopropyltoluene	90	90	75 - 135	0	20		
1,4-Dichlorobenzene	92	93	70 - 125	0	20		
n-Butylbenzene	97	91	65 - 140	6	20		
1,2-Dichlorobenzene	91	95	75 - 120	4	20		
1,2-Dibromo-3-Chloropropane	71	62	40 - 135	14	20		
1,2,4-Trichlorobenzene	89	90	65 - 130	0	20		
1,2,3-Trichlorobenzene	88	91	60 - 135	3	20		
Hexachlorobutadiene	87	81	55 - 140	7	20		
Naphthalene	85	86	40 - 125	1	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Fluorobenzene (Surr)	104		105		75 - 125		
Toluene-d8 (Surr)	103		103		75 - 125		
Ethylbenzene-d10	104		106		75 - 125		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	94	96	75 - 125

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-10994**

**Method: 8270C**

**Preparation: 3510C**

Lab Sample ID: MB 580-10994/1-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 09/19/2006 1209  
 Date Prepared: 09/19/2006 0755

Analysis Batch: 580-11031  
 Prep Batch: 580-10994  
 Units: ug/L

Instrument ID: SEA040  
 Lab File ID: ak006123.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Result	Qual	MDL	RL
Phenol	ND		0.074	3.0
Bis(2-chloroethyl)ether	ND		0.18	2.0
2-Chlorophenol	ND		0.22	2.0
1,3-Dichlorobenzene	ND		0.11	2.0
1,4-Dichlorobenzene	ND		0.12	2.0
Benzyl alcohol	ND		0.13	2.0
1,2-Dichlorobenzene	ND		0.11	2.0
2-Methylphenol	ND		0.38	2.0
Bis(2-chloroisopropyl) ether	ND		0.088	2.0
3 & 4 Methylphenol	ND		0.17	4.0
N-Nitrosodi-n-propylamine	ND		0.20	2.0
Hexachloroethane	ND		0.13	3.0
Nitrobenzene	ND		0.075	2.0
Isophorone	ND		0.11	2.0
2-Nitrophenol	ND		0.21	2.0
2,4-Dimethylphenol	ND		0.18	10
Benzoic acid	ND		0.21	10
Bis(2-chloroethoxy)methane	ND		0.095	2.0
2,4-Dichlorophenol	ND		0.13	2.0
1,2,4-Trichlorobenzene	ND		0.10	2.0
Naphthalene	ND		0.014	2.0
4-Chloroaniline	ND		0.19	2.0
Hexachlorobutadiene	ND		0.16	3.0
4-Chloro-3-methylphenol	ND		0.14	2.0
2-Methylnaphthalene	ND		0.055	1.0
Hexachlorocyclopentadiene	ND		0.12	10
2,4,6-Trichlorophenol	ND		0.10	3.0
2,4,5-Trichlorophenol	ND		0.085	2.0
2-Chloronaphthalene	ND		0.030	0.30
2-Nitroaniline	ND		0.11	2.0
Dimethyl phthalate	ND		0.12	2.0
Acenaphthylene	ND		0.026	0.40
2,6-Dinitrotoluene	ND		0.14	2.0
3-Nitroaniline	ND		0.56	2.0
Acenaphthene	ND		0.012	0.50
2,4-Dinitrophenol	ND		0.58	25
4-Nitrophenol	ND		1.6	10
Dibenzofuran	ND		0.098	2.0
2,4-Dinitrotoluene	ND		0.12	2.0
Diethyl phthalate	ND		0.093	2.0
4-Chlorophenyl phenyl ether	ND		0.12	2.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-10994**

**Method: 8270C**  
**Preparation: 3510C**

Lab Sample ID: MB 580-10994/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1209  
Date Prepared: 09/19/2006 0755

Analysis Batch: 580-11031  
Prep Batch: 580-10994  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak006123.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Result	Qual	MDL	RL
Fluorene	ND		0.042	0.30
4-Nitroaniline	ND		0.18	3.0
4,6-Dinitro-2-methylphenol	ND		0.53	20
N-Nitrosodiphenylamine	ND		0.13	2.0
4-Bromophenyl phenyl ether	ND		0.10	2.0
Hexachlorobenzene	ND		0.082	2.0
Pentachlorophenol	ND		0.13	3.5
Phenanthrene	ND		0.024	0.40
Anthracene	ND		0.019	0.20
Di-n-butyl phthalate	0.44	J	0.088	2.0
Fluoranthene	ND		0.027	0.25
Pyrene	ND		0.020	0.30
Butyl benzyl phthalate	0.95	J	0.24	3.0
3,3'-Dichlorobenzidine	ND		1.6	10
Benzo[a]anthracene	ND		0.033	0.30
Chrysene	ND		0.045	0.20
Bis(2-ethylhexyl) phthalate	0.99	J	0.32	15
Di-n-octyl phthalate	ND		0.18	2.0
Benzofluoranthene	ND		0.055	0.40
Benzo[a]pyrene	ND		0.027	0.20
Indeno[1,2,3-cd]pyrene	ND		0.051	0.30
Dibenz(a,h)anthracene	ND		0.046	0.30
Benzo[g,h,i]perylene	ND		0.060	0.30
Carbazole	ND		0.090	2.0
1-Methylnaphthalene	ND		0.052	0.30

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	46	10 - 120
Phenol-d5	25	10 - 102
Nitrobenzene-d5	88	34 - 146
2-Fluorobiphenyl	97	35 - 143
2,4,6-Tribromophenol	80	29 - 151
Terphenyl-d14	105	35 - 166

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-10994**

**Method: 8270C  
Preparation: 3510C**

LCS Lab Sample ID: LCS 580-10994/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1233  
Date Prepared: 09/19/2006 0755

Analysis Batch: 580-11031  
Prep Batch: 580-10994  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak006124.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:

LCSD Lab Sample ID: LCSD 580-10994/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1257  
Date Prepared: 09/19/2006 0755

Analysis Batch: 580-11031  
Prep Batch: 580-10994  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak006125.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Phenol	23	24	10 - 70	4	51	J	J
Bis(2-chloroethyl)ether	91	96	53 - 128	5	50		
2-Chlorophenol	88	93	52 - 122	5	25		
1,3-Dichlorobenzene	99	104	58 - 129	4	50		
1,4-Dichlorobenzene	104	109	62 - 132	4	32		
Benzyl alcohol	52	57	20 - 100	8	50		
1,2-Dichlorobenzene	100	103	60 - 126	3	50		
2-Methylphenol	69	73	35 - 106	6	50		
Bis(2-chloroisopropyl) ether	83	87	50 - 135	5	50		
3 & 4 Methylphenol	56	61	21 - 102	9	50		
N-Nitrosodi-n-propylamine	90	94	47 - 142	4	48		
Hexachloroethane	108	109	60 - 125	2	50		
Nitrobenzene	98	100	66 - 131	2	50		
Isophorone	95	95	62 - 122	0	50		
2-Nitrophenol	86	88	55 - 131	2	50		
2,4-Dimethylphenol	101	104	47 - 127	2	50		
Benzoic acid	11	13	0 - 35	14	50	J	J
Bis(2-chloroethoxy)methane	97	99	65 - 126	3	50		
2,4-Dichlorophenol	103	106	66 - 122	3	50		
1,2,4-Trichlorobenzene	109	112	59 - 130	3	28		
Naphthalene	103	104	66 - 127	1	32		
4-Chloroaniline	137	142	75 - 171	4	50		
Hexachlorobutadiene	111	114	54 - 135	3	50		
4-Chloro-3-methylphenol	86	89	56 - 121	3	33		
2-Methylnaphthalene	103	104	64 - 125	1	30		
Hexachlorocyclopentadiene	84	87	45 - 126	3	50	J	J
2,4,6-Trichlorophenol	108	112	62 - 127	3	50		
2,4,5-Trichlorophenol	97	100	64 - 124	3	50		
2-Chloronaphthalene	105	107	70 - 125	2	50		
2-Nitroaniline	97	97	65 - 130	0	50		
Dimethyl phthalate	107	109	47 - 147	2	50		
Acenaphthylene	108	108	71 - 126	1	45		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-10994**

**Method: 8270C  
Preparation: 3510C**

LCS Lab Sample ID: LCS 580-10994/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1233  
Date Prepared: 09/19/2006 0755

Analysis Batch: 580-11031  
Prep Batch: 580-10994  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak006124.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:

LCSD Lab Sample ID: LCSD 580-10994/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1257  
Date Prepared: 09/19/2006 0755

Analysis Batch: 580-11031  
Prep Batch: 580-10994  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak006125.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
2,6-Dinitrotoluene	102	106	66 - 131	4	50		
3-Nitroaniline	162	170	90 - 176	5	50		
Acenaphthene	106	107	65 - 130	1	27		
2,4-Dinitrophenol	79	85	15 - 140	7	50	J	J
4-Nitrophenol	30	33	10 - 135	11	59	J	J
Dibenzofuran	105	105	71 - 121	0	50		
2,4-Dinitrotoluene	97	99	57 - 128	2	35		
Diethyl phthalate	110	111	54 - 135	2	50		
4-Chlorophenyl phenyl ether	105	108	66 - 127	3	50		
Fluorene	106	109	69 - 129	3	29		
4-Nitroaniline	126	135	58 - 143	7	50		
4,6-Dinitro-2-methylphenol	76	80	36 - 127	6	50	J	J
N-Nitrosodiphenylamine	135	139	90 - 150	2	33		
4-Bromophenyl phenyl ether	111	114	66 - 131	2	50		
Hexachlorobenzene	105	104	67 - 128	2	50		
Pentachlorophenol	71	74	43 - 118	4	67		
Phenanthrene	105	105	62 - 128	1	24		
Anthracene	112	114	73 - 128	2	28		
Di-n-butyl phthalate	114	121	72 - 132	6	50		
Fluoranthene	104	106	64 - 124	2	22		
Pyrene	111	113	58 - 140	2	38		
Butyl benzyl phthalate	102	104	70 - 141	3	50		
3,3'-Dichlorobenzidine	132	136	67 - 157	3	50		
Benzo[a]anthracene	107	109	70 - 126	2	29		
Chrysene	108	110	70 - 126	2	33		
Bis(2-ethylhexyl) phthalate	100	100	69 - 154	0	50	J	J
Di-n-octyl phthalate	85	82	49 - 149	4	50		
Benzofluoranthene	117	118	59 - 140	1	41		
Benzo[a]pyrene	125	131	72 - 128	5	27		*
Indeno[1,2,3-cd]pyrene	121	131	58 - 139	8	34		
Dibenz(a,h)anthracene	120	132	61 - 146	10	42		
Benzo[g,h,i]perylene	116	127	59 - 144	9	32		

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-10994**

**Method: 8270C  
Preparation: 3510C**

LCS Lab Sample ID: LCS 580-10994/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1233  
Date Prepared: 09/19/2006 0755

Analysis Batch: 580-11031  
Prep Batch: 580-10994  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak006124.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:

LCSD Lab Sample ID: LCSD 580-10994/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1257  
Date Prepared: 09/19/2006 0755

Analysis Batch: 580-11031  
Prep Batch: 580-10994  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak006125.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Carbazole	137	151	90 - 155	9	50		
1-Methylnaphthalene	109	110	47 - 148	1	50		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
2-Fluorophenol	40		43		10 - 120		
Phenol-d5	22		24		10 - 102		
Nitrobenzene-d5	93		93		34 - 146		
2-Fluorobiphenyl	100		101		35 - 143		
2,4,6-Tribromophenol	97		100		29 - 151		
Terphenyl-d14	105		108		35 - 166		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11009**

**Method: 8270C  
Preparation: 3510C**

Lab Sample ID: MB 580-11009/1-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 09/19/2006 1851  
 Date Prepared: 09/19/2006 1131

Analysis Batch: 580-11046  
 Prep Batch: 580-11009  
 Units: ug/L

Instrument ID: SEA040  
 Lab File ID: ak006139.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Result	Qual	MDL	RL
Naphthalene	0.0064	J	0.0060	0.10
2-Methylnaphthalene	ND		0.0090	0.13
1-Methylnaphthalene	ND		0.032	0.10
Acenaphthylene	0.0051	J	0.0040	0.10
Acenaphthene	0.0056	J	0.0030	0.10
Fluorene	ND		0.0080	0.10
Phenanthrene	0.0067	J	0.0030	0.10
Anthracene	ND		0.0080	0.10
Fluoranthene	ND		0.0090	0.10
Pyrene	ND		0.013	0.10
Benzo[a]anthracene	0.012	J	0.0090	0.10
Chrysene	ND		0.0090	0.10
Benzofluoranthene	ND		0.031	0.20
Benzo[a]pyrene	ND		0.060	0.20
Indeno[1,2,3-cd]pyrene	ND		0.015	0.10
Dibenz(a,h)anthracene	ND		0.012	0.10
Benzo[g,h,i]perylene	ND		0.018	0.10
Surrogate	% Rec	Acceptance Limits		
Nitrobenzene-d5	89	34 - 146		
2-Fluorobiphenyl	89	35 - 143		
Terphenyl-d14	95	35 - 166		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11009**

**Method: 8270C  
Preparation: 3510C**

LCS Lab Sample ID: LCS 580-11009/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1915  
Date Prepared: 09/19/2006 1131

Analysis Batch: 580-11046  
Prep Batch: 580-11009  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak006140.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:

LCSD Lab Sample ID: LCSD 580-11009/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1940  
Date Prepared: 09/19/2006 1131

Analysis Batch: 580-11046  
Prep Batch: 580-11009  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak006141.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Naphthalene	89	90	40 - 100	1	32		
2-Methylnaphthalene	93	95	45 - 105	2	30		
1-Methylnaphthalene	95	96	50 - 150	1	50		
Acenaphthylene	97	98	50 - 105	1	45		
Acenaphthene	88	88	45 - 110	0	27		
Fluorene	92	92	50 - 110	0	29		
Phenanthrene	79	80	50 - 115	1	24		
Anthracene	93	95	55 - 110	2	28		
Fluoranthene	87	89	55 - 115	1	22		
Pyrene	87	88	50 - 130	2	38		
Benzo[a]anthracene	96	98	55 - 110	2	29		
Chrysene	91	93	55 - 110	2	33		
Benzofluoranthene	88	88	45 - 125	0	41		
Benzo[a]pyrene	106	108	55 - 110	1	27		
Indeno[1,2,3-cd]pyrene	110	112	45 - 125	2	34		
Dibenz(a,h)anthracene	111	114	40 - 125	3	42		
Benzo[g,h,i]perylene	98	98	40 - 125	1	32		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Nitrobenzene-d5	96		98		34 - 146		
2-Fluorobiphenyl	88		88		35 - 143		
Terphenyl-d14	94		96		35 - 166		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11017**

**Method: 8270C**  
**Preparation: 3550B**

Lab Sample ID: MB 580-11017/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 2027  
Date Prepared: 09/19/2006 1316

Analysis Batch: 580-11113  
Prep Batch: 580-11017  
Units: ug/Kg

Instrument ID: SEA040  
Lab File ID: ak006182.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Result	Qual	MDL	RL
Naphthalene	ND		0.54	5.0
2-Methylnaphthalene	ND		0.59	5.0
1-Methylnaphthalene	ND		0.73	5.0
Acenaphthylene	ND		0.56	5.0
Acenaphthene	ND		0.56	5.0
Fluorene	ND		0.58	5.0
Phenanthrene	0.86	J	0.70	5.0
Anthracene	ND		0.49	5.0
Fluoranthene	1.7	J	0.46	5.0
Pyrene	1.6	J	0.48	5.0
Benzo[a]anthracene	1.7	J	0.75	5.0
Chrysene	0.98	J	0.54	5.0
Benzo[fluoranthene	2.5	J	1.3	10
Benzo[a]pyrene	1.5	J	0.52	5.0
Indeno[1,2,3-cd]pyrene	1.6	J	1.4	5.0
Dibenz(a,h)anthracene	ND		1.4	5.0
Benzo[g,h,i]perylene	1.7	J	1.6	5.0
Surrogate	% Rec	Acceptance Limits		
Nitrobenzene-d5	82	38 - 141		
2-Fluorobiphenyl	70	42 - 140		
Terphenyl-d14	80	42 - 151		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11017**

**Method: 8270C  
Preparation: 3550B**

LCS Lab Sample ID: LCS 580-11017/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 2052  
Date Prepared: 09/19/2006 1316

Analysis Batch: 580-11113  
Prep Batch: 580-11017  
Units: ug/Kg

Instrument ID: SEA040  
Lab File ID: ak006183.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

LCSD Lab Sample ID: LCSD 580-11017/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 2116  
Date Prepared: 09/19/2006 1316

Analysis Batch: 580-11113  
Prep Batch: 580-11017  
Units: ug/Kg

Instrument ID: SEA040  
Lab File ID: ak006184.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Naphthalene	104	107	64 - 129	3	26		
2-Methylnaphthalene	113	116	65 - 125	3	27		
1-Methylnaphthalene	110	114	48 - 148	3	30		
Acenaphthylene	107	110	69 - 129	3	28		
Acenaphthene	102	105	65 - 130	2	27		
Fluorene	109	111	68 - 128	2	31		
Phenanthrene	93	94	65 - 125	2	28		
Anthracene	111	112	73 - 123	1	27		
Fluoranthene	105	107	61 - 121	2	36		
Pyrene	103	106	54 - 134	2	31		
Benzo[a]anthracene	114	118	64 - 124	3	27		
Chrysene	90	115	71 - 126	24	26		
Benzofluoranthene	99	100	57 - 137	1	31		
Benzo[a]pyrene	123	126	68 - 128	2	30		
Indeno[1,2,3-cd]pyrene	128	112	59 - 139	13	29		
Dibenz(a,h)anthracene	139	115	57 - 142	19	30		
Benzo[g,h,i]perylene	121	125	57 - 142	3	28		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Nitrobenzene-d5	98		80		38 - 141		
2-Fluorobiphenyl	85		83		42 - 140		
Terphenyl-d14	93		91		42 - 151		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-11017**

**Method: 8270C  
Preparation: 3550B**

MS Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 2205  
Date Prepared: 09/19/2006 1316

Analysis Batch: 580-11113  
Prep Batch: 580-11017

Instrument ID: SEA040  
Lab File ID: ak006186.D  
Initial Weight/Volume: 10.6725 g  
Final Weight/Volume: 10 mL  
Injection Volume:

MSD Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 2230  
Date Prepared: 09/19/2006 1316

Analysis Batch: 580-11113  
Prep Batch: 580-11017

Instrument ID: SEA040  
Lab File ID: ak006187.D  
Initial Weight/Volume: 10.3893 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Naphthalene	110	113	64 - 129	6	26		
2-Methylnaphthalene	119	121	65 - 125	5	27		
1-Methylnaphthalene	116	119	48 - 148	5	30		
Acenaphthylene	112	115	69 - 129	5	28		
Acenaphthene	107	111	65 - 130	6	27		
Fluorene	113	117	68 - 128	6	31		
Phenanthrene	97	100	65 - 125	6	28		
Anthracene	115	118	73 - 123	5	27		
Fluoranthene	108	112	61 - 121	6	36		
Pyrene	108	111	54 - 134	5	31		
Benzo[a]anthracene	120	126	64 - 124	8	27		F
Chrysene	116	121	71 - 126	7	26		
Benzo[fluoranthene]	102	105	57 - 137	6	31		
Benzo[a]pyrene	128	133	68 - 128	6	30		F
Indeno[1,2,3-cd]pyrene	114	107	59 - 139	3	29		
Dibenz(a,h)anthracene	116	114	57 - 142	1	30		
Benzo[g,h,i]perylene	128	131	57 - 142	5	28		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Nitrobenzene-d5	79	87	38 - 141
2-Fluorobiphenyl	81	83	42 - 140
Terphenyl-d14	90	92	42 - 151

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11062**

**Method: 8270C**  
**Preparation: 3550B**

Lab Sample ID: MB 580-11062/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 1340  
Date Prepared: 09/20/2006 1316

Analysis Batch: 580-11112  
Prep Batch: 580-11062  
Units: ug/Kg

Instrument ID: SEA040  
Lab File ID: ak006165.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Result	Qual	MDL	RL
Phenol	ND		27	100
Bis(2-chloroethyl)ether	ND		30	100
2-Chlorophenol	ND		23	100
1,3-Dichlorobenzene	ND		12	50
1,4-Dichlorobenzene	ND		7.6	50
Benzyl alcohol	ND		30	100
1,2-Dichlorobenzene	ND		17	50
2-Methylphenol	ND		28	100
Bis(2-chloroisopropyl) ether	ND		34	150
3 & 4 Methylphenol	ND		53	200
N-Nitrosodi-n-propylamine	ND		26	100
Hexachloroethane	ND		21	100
Nitrobenzene	ND		15	100
Isophorone	ND		26	100
2-Nitrophenol	ND		23	100
2,4-Dimethylphenol	ND		19	100
Benzoic acid	ND		830	2500
Bis(2-chloroethoxy)methane	ND		25	100
2,4-Dichlorophenol	ND		19	100
1,2,4-Trichlorobenzene	ND		9.9	50
4-Chloroaniline	ND		27	100
Hexachlorobutadiene	ND		13	50
4-Chloro-3-methylphenol	ND		22	100
Hexachlorocyclopentadiene	ND		25	100
2,4,6-Trichlorophenol	ND		33	150
2,4,5-Trichlorophenol	ND		23	100
2-Chloronaphthalene	ND		1.9	20
2-Nitroaniline	ND		19	100
Dimethyl phthalate	ND		7.7	100
2,6-Dinitrotoluene	ND		19	100
3-Nitroaniline	ND		29	100
2,4-Dinitrophenol	ND		210	1000
4-Nitrophenol	ND		260	1000
Dibenzofuran	ND		17	100
2,4-Dinitrotoluene	ND		14	100
Diethyl phthalate	ND		7.2	100
4-Chlorophenyl phenyl ether	ND		16	100
4-Nitroaniline	ND		19	100
4,6-Dinitro-2-methylphenol	ND		270	1000
N-Nitrosodiphenylamine	ND		15	50
4-Bromophenyl phenyl ether	ND		10	100

Calculations are performed before rounding to avoid round-off errors in calculated results.

# Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

## Method Blank - Batch: 580-11062

**Method: 8270C**  
**Preparation: 3550B**

Lab Sample ID: MB 580-11062/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 1340  
Date Prepared: 09/20/2006 1316

Analysis Batch: 580-11112  
Prep Batch: 580-11062  
Units: ug/Kg

Instrument ID: SEA040  
Lab File ID: ak006165.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Result	Qual	MDL	RL
Hexachlorobenzene	ND		11	50
Pentachlorophenol	ND		31	100
Di-n-butyl phthalate	ND		13	200
Butyl benzyl phthalate	ND		29	100
3,3'-Dichlorobenzidine	ND		9.1	200
Bis(2-ethylhexyl) phthalate	ND		240	1500
Di-n-octyl phthalate	ND		33	200
Carbazole	ND		33	150
1-Methylnaphthalene	ND		8.7	30

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	93	36 - 145
Phenol-d5	87	38 - 149
Nitrobenzene-d5	85	38 - 141
2-Fluorobiphenyl	100	42 - 140
2,4,6-Tribromophenol	78	28 - 143
Terphenyl-d14	106	42 - 151

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11062**

**Method: 8270C  
Preparation: 3550B**

LCS Lab Sample ID: LCS 580-11062/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 1404  
Date Prepared: 09/20/2006 1316

Analysis Batch: 580-11112  
Prep Batch: 580-11062  
Units: ug/Kg

Instrument ID: SEA040  
Lab File ID: ak006166.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

LCSD Lab Sample ID: LCSD 580-11062/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 1434  
Date Prepared: 09/20/2006 1316

Analysis Batch: 580-11112  
Prep Batch: 580-11062  
Units: ug/Kg

Instrument ID: SEA040  
Lab File ID: ak006167.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Phenol	97	88	66 - 126	10	26		
Bis(2-chloroethyl)ether	88	90	57 - 122	2	60		
2-Chlorophenol	98	102	65 - 125	4	27		
1,3-Dichlorobenzene	89	95	64 - 124	6	60		
1,4-Dichlorobenzene	99	101	62 - 132	2	32		
Benzyl alcohol	90	94	42 - 147	4	60		
1,2-Dichlorobenzene	92	96	68 - 118	4	60		
2-Methylphenol	95	98	56 - 121	3	25		
Bis(2-chloroisopropyl) ether	79	81	44 - 140	3	60		
3 & 4 Methylphenol	94	97	61 - 126	3	27		
N-Nitrosodi-n-propylamine	85	91	52 - 127	6	28		
Hexachloroethane	100	106	56 - 131	6	60		
Nitrobenzene	92	95	59 - 134	4	60		
Isophorone	88	92	53 - 118	5	60		
2-Nitrophenol	87	93	58 - 128	6	60		
2,4-Dimethylphenol	105	109	58 - 133	4	60		
Benzoic acid	73	97	10 - 130	28	60		
Bis(2-chloroethoxy)methane	91	97	63 - 128	6	60		
2,4-Dichlorophenol	107	114	59 - 124	7	60		
1,2,4-Trichlorobenzene	100	105	63 - 128	4	28		
4-Chloroaniline	123	132	20 - 181	7	60		
Hexachlorobutadiene	105	108	59 - 134	3	60		
4-Chloro-3-methylphenol	96	100	58 - 128	4	27		
Hexachlorocyclopentadiene	68	78	30 - 132	13	60		
2,4,6-Trichlorophenol	112	117	66 - 131	5	60		
2,4,5-Trichlorophenol	99	102	64 - 124	3	60		
2-Chloronaphthalene	98	100	69 - 129	2	25		
2-Nitroaniline	100	104	58 - 133	4	60		
Dimethyl phthalate	100	103	65 - 125	3	60		
2,6-Dinitrotoluene	99	103	65 - 125	3	60		
3-Nitroaniline	165	174	80 - 165	5	60		*
2,4-Dinitrophenol	105	114	53 - 168	9	60		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11062**

**Method: 8270C  
Preparation: 3550B**

LCS Lab Sample ID: LCS 580-11062/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 1404  
Date Prepared: 09/20/2006 1316

Analysis Batch: 580-11112  
Prep Batch: 580-11062  
Units: ug/Kg

Instrument ID: SEA040  
Lab File ID: ak006166.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

LCSD Lab Sample ID: LCSD 580-11062/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 1434  
Date Prepared: 09/20/2006 1316

Analysis Batch: 580-11112  
Prep Batch: 580-11062  
Units: ug/Kg

Instrument ID: SEA040  
Lab File ID: ak006167.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
4-Nitrophenol	103	111	47 - 172	8	33		
Dibenzofuran	97	101	70 - 125	4	60		
2,4-Dinitrotoluene	96	100	57 - 122	4	31		
Diethyl phthalate	105	108	64 - 129	3	26		
4-Chlorophenyl phenyl ether	92	98	65 - 130	6	60		
4-Nitroaniline	137	146	70 - 150	6	60		
4,6-Dinitro-2-methylphenol	90	98	38 - 143	8	60	J	J
N-Nitrosodiphenylamine	129	131	88 - 153	2	60		
4-Bromophenyl phenyl ether	103	108	64 - 134	4	60		
Hexachlorobenzene	90	85	61 - 136	6	60		
Pentachlorophenol	89	95	29 - 124	7	68		
Di-n-butyl phthalate	115	119	69 - 124	3	60		
Butyl benzyl phthalate	106	107	65 - 140	1	60		
3,3'-Dichlorobenzidine	148	147	73 - 163	1	60		
Bis(2-ethylhexyl) phthalate	104	105	64 - 144	1	60	J	J
Di-n-octyl phthalate	96	100	58 - 148	4	31		
Carbazole	125	141	88 - 158	11	60		
1-Methylnaphthalene	102	107	48 - 148	4	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
2-Fluorophenol	72		71		36 - 145		
Phenol-d5	70		71		38 - 149		
Nitrobenzene-d5	71		71		38 - 141		
2-Fluorobiphenyl	75		74		42 - 140		
2,4,6-Tribromophenol	83		82		28 - 143		
Terphenyl-d14	84		85		42 - 151		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-11062**

**Method: 8270C  
Preparation: 3550B**

MS Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 1522  
Date Prepared: 09/20/2006 1316

Analysis Batch: 580-11112  
Prep Batch: 580-11062

Instrument ID: SEA040  
Lab File ID: ak006169.D  
Initial Weight/Volume: 10.6725 g  
Final Weight/Volume: 10 mL  
Injection Volume:

MSD Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 1547  
Date Prepared: 09/20/2006 1316

Analysis Batch: 580-11112  
Prep Batch: 580-11062

Instrument ID: SEA040  
Lab File ID: ak006170.D  
Initial Weight/Volume: 10.3893 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Phenol	104	107	66 - 126	5	26		
Bis(2-chloroethyl)ether	96	98	57 - 122	5	60		
2-Chlorophenol	106	108	65 - 125	5	27		
1,3-Dichlorobenzene	99	101	64 - 124	5	60		
1,4-Dichlorobenzene	108	110	62 - 132	4	32		
Benzyl alcohol	93	95	42 - 147	5	60		
1,2-Dichlorobenzene	98	102	68 - 118	7	60		
2-Methylphenol	100	105	56 - 121	7	25		
Bis(2-chloroisopropyl) ether	84	88	44 - 140	7	60		
3 & 4 Methylphenol	98	101	61 - 126	6	27		
N-Nitrosodi-n-propylamine	88	91	52 - 127	5	28		
Hexachloroethane	106	111	56 - 131	7	60		
Nitrobenzene	99	99	59 - 134	3	60		
Isophorone	94	95	53 - 118	3	60		
2-Nitrophenol	93	93	58 - 128	3	60		
2,4-Dimethylphenol	110	111	58 - 133	3	60		
Benzoic acid	20	19	10 - 130	1	60	J	J
Bis(2-chloroethoxy)methane	101	101	63 - 128	3	60		
2,4-Dichlorophenol	116	114	59 - 124	1	60		
1,2,4-Trichlorobenzene	109	109	63 - 128	3	28		
4-Chloroaniline	133	135	20 - 181	4	60		
Hexachlorobutadiene	114	112	59 - 134	1	60		
4-Chloro-3-methylphenol	102	101	58 - 128	1	27		
Hexachlorocyclopentadiene	71	75	30 - 132	8	60		
2,4,6-Trichlorophenol	119	119	66 - 131	3	60		
2,4,5-Trichlorophenol	106	108	64 - 124	5	60		
2-Chloronaphthalene	104	107	69 - 129	5	25		
2-Nitroaniline	106	108	58 - 133	4	60		
Dimethyl phthalate	106	108	65 - 125	4	60		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-11062**

**Method: 8270C  
Preparation: 3550B**

MS Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 1522  
Date Prepared: 09/20/2006 1316

Analysis Batch: 580-11112  
Prep Batch: 580-11062

Instrument ID: SEA040  
Lab File ID: ak006169.D  
Initial Weight/Volume: 10.6725 g  
Final Weight/Volume: 10 mL  
Injection Volume:

MSD Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/20/2006 1547  
Date Prepared: 09/20/2006 1316

Analysis Batch: 580-11112  
Prep Batch: 580-11062

Instrument ID: SEA040  
Lab File ID: ak006170.D  
Initial Weight/Volume: 10.3893 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
2,6-Dinitrotoluene	103	108	65 - 125	7	60		
3-Nitroaniline	176	180	80 - 165	5	60	F	F
2,4-Dinitrophenol	85	84	53 - 168	2	60	J	J
4-Nitrophenol	104	103	47 - 172	1	33		
Dibenzofuran	104	105	70 - 125	4	60		
2,4-Dinitrotoluene	100	102	57 - 122	5	31		
Diethyl phthalate	111	114	64 - 129	6	26		
4-Chlorophenyl phenyl ether	100	104	65 - 130	6	60		
4-Nitroaniline	146	146	70 - 150	3	60		
4,6-Dinitro-2-methylphenol	86	90	38 - 143	7	60	J	J
N-Nitrosodiphenylamine	135	140	88 - 153	6	60		
4-Bromophenyl phenyl ether	111	112	64 - 134	4	60		
Hexachlorobenzene	87	88	61 - 136	3	60		
Pentachlorophenol	88	90	29 - 124	4	68		
Di-n-butyl phthalate	122	123	69 - 124	4	60		
Butyl benzyl phthalate	113	111	65 - 140	1	60		
3,3'-Dichlorobenzidine	157	157	73 - 163	3	60		
Bis(2-ethylhexyl) phthalate	110	109	64 - 144	2	60	J	J
Di-n-octyl phthalate	99	96	58 - 148	0	31		
Carbazole	142	147	88 - 158	6	60		
1-Methylnaphthalene	110	109	48 - 148	2	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorophenol	70	73	36 - 145
Phenol-d5	68	73	38 - 149
Nitrobenzene-d5	68	70	38 - 141
2-Fluorobiphenyl	73	76	42 - 140
2,4,6-Tribromophenol	80	82	28 - 143
Terphenyl-d14	80	82	42 - 151

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11132**

**Method: NWTPH-Gx  
Preparation: 5035**

Lab Sample ID: MB 580-11132/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/22/2006 1213  
Date Prepared: 09/22/2006 0954

Analysis Batch: 580-11084  
Prep Batch: 580-11132  
Units: mg/Kg

Instrument ID: SEA041  
Lab File ID: GX0003001.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 400 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Gasoline	0.64	J	0.26	4.0

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	99	50 - 150
Trifluorotoluene (Surr)	91	50 - 150
Ethylbenzene-d10	101	50 - 150
Fluorobenzene (Surr)	95	50 - 150
Toluene-d8 (Surr)	103	50 - 150

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11132**

**Method: NWTPH-Gx  
Preparation: 5035**

LCS Lab Sample ID: LCS 580-11132/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/22/2006 1245  
Date Prepared: 09/22/2006 0954

Analysis Batch: 580-11084  
Prep Batch: 580-11132  
Units: mg/Kg

Instrument ID: SEA041  
Lab File ID: GX0003002.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 400 mL  
Injection Volume:  
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 580-11132/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/22/2006 1308  
Date Prepared: 09/22/2006 0954

Analysis Batch: 580-11084  
Prep Batch: 580-11132  
Units: mg/Kg

Instrument ID: SEA041  
Lab File ID: GX0003003.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 400 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Gasoline	90	88	68 - 120	3	10		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene (Surr)	100	100			50 - 150		
Trifluorotoluene (Surr)	90	84			50 - 150		
Ethylbenzene-d10	103	103			50 - 150		
Fluorobenzene (Surr)	108	107			50 - 150		
Toluene-d8 (Surr)	101	104			50 - 150		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11154**

**Method: NWTPH-Gx  
Preparation: 5030B**

Lab Sample ID: MB 580-11154/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/22/2006 1210  
Date Prepared: 09/22/2006 1210

Analysis Batch: 580-11154  
Prep Batch: N/A  
Units: mg/L

Instrument ID: SEA003  
Lab File ID: CS167402.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Gasoline	0.018	J	0.0077	0.050

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	98	50 - 150
Trifluorotoluene (Surr)	87	50 - 150
Ethylbenzene-d10	103	50 - 150
Fluorobenzene (Surr)	84	50 - 150
Toluene-d8 (Surr)	104	50 - 150

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11154**

**Method: NWTPH-Gx  
Preparation: 5030B**

LCS Lab Sample ID: LCS 580-11154/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/22/2006 1239  
Date Prepared: 09/22/2006 1239

Analysis Batch: 580-11154  
Prep Batch: N/A  
Units: mg/L

Instrument ID: SEA003  
Lab File ID: CS167403.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 580-11154/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/22/2006 1302  
Date Prepared: 09/22/2006 1302

Analysis Batch: 580-11154  
Prep Batch: N/A  
Units: mg/L

Instrument ID: SEA003  
Lab File ID: CS167404.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Gasoline	85	83	79 - 110	2	8		
Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits			
4-Bromofluorobenzene (Surr)	99		99	50 - 150			
Trifluorotoluene (Surr)	92		89	50 - 150			
Ethylbenzene-d10	103		103	50 - 150			
Fluorobenzene (Surr)	90		90	50 - 150			
Toluene-d8 (Surr)	99		99	50 - 150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-10997**

**Method: NWTPH-Dx  
Preparation: 3510C**

Lab Sample ID: MB 580-10997/1-B  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1436  
Date Prepared: 09/19/2006 0921

Analysis Batch: 580-11035  
Prep Batch: 580-10997  
Units: mg/L

Instrument ID: SEA015  
Lab File ID: PL13814.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 5 mL  
Injection Volume:

Analyte	Result	Qual	MDL	RL
Motor Oil (>C24-C36)	ND		0.060	0.50
#2 Diesel (C10-C24)	ND		0.032	0.25
Surrogate	% Rec		Acceptance Limits	
o-Terphenyl	99		50 - 150	

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-10997**

**Method: NWTPH-Dx  
Preparation: 3510C**

LCS Lab Sample ID: LCS 580-10997/2-B  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1456  
Date Prepared: 09/19/2006 0921

Analysis Batch: 580-11035  
Prep Batch: 580-10997  
Units: mg/L

Instrument ID: SEA015  
Lab File ID: PL13815.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 5 mL  
Injection Volume:

LCSD Lab Sample ID: LCSD 580-10997/3-B  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1521  
Date Prepared: 09/19/2006 0921

Analysis Batch: 580-11035  
Prep Batch: 580-10997  
Units: mg/L

Instrument ID: SEA015  
Lab File ID: PL13816.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 5 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Motor Oil (>C24-C36)	110	105	70 - 130	5	30		
#2 Diesel (C10-C24)	102	97	70 - 130	5	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
o-Terphenyl	108	97			50 - 150		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11003**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: MB 580-11003/1-B  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1813  
Date Prepared: 09/19/2006 1020

Analysis Batch: 580-11036  
Prep Batch: 580-11003  
Units: mg/Kg

Instrument ID: SEA015  
Lab File ID: PL13824.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Result	Qual	MDL	RL
Motor Oil (>C24-C36)	ND		6.0	50
#2 Diesel (C10-C24)	ND		6.0	25
Surrogate	% Rec		Acceptance Limits	
o-Terphenyl	95		50 - 150	

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11003**

**Method: NWTPH-Dx  
Preparation: 3550B**

LCS Lab Sample ID: LCS 580-11003/2-B  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1833  
Date Prepared: 09/19/2006 1020

Analysis Batch: 580-11036  
Prep Batch: 580-11003  
Units: mg/Kg

Instrument ID: SEA015  
Lab File ID: PL13825.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

LCSD Lab Sample ID: LCSD 580-11003/3-B  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/19/2006 1858  
Date Prepared: 09/19/2006 1020

Analysis Batch: 580-11036  
Prep Batch: 580-11003  
Units: mg/Kg

Instrument ID: SEA015  
Lab File ID: PL13826.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Motor Oil (>C24-C36)	94	104	70 - 125	9	17		
#2 Diesel (C10-C24)	87	99	64 - 127	12	16		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
o-Terphenyl	88		100		50 - 150		

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11162**

**Method: 6010B  
Preparation: 3050B**

Lab Sample ID: MB 580-11162/17-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1247  
Date Prepared: 09/25/2006 0933

Analysis Batch: 580-11184  
Prep Batch: 580-11162  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Lead	ND		0.039	0.75
Arsenic	ND		0.22	2.5
Cadmium	ND		0.0041	0.25
Chromium	ND		0.011	0.50

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11162**

**Method: 6010B  
Preparation: 3050B**

LCS Lab Sample ID: LCS 580-11162/18-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1314  
Date Prepared: 09/25/2006 0933

Analysis Batch: 580-11184  
Prep Batch: 580-11162  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-11162/19-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1317  
Date Prepared: 09/25/2006 0933

Analysis Batch: 580-11184  
Prep Batch: 580-11162  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	96	96	80 - 120	0	35		
Lead	97	97	80 - 120	0	35		
Cadmium	94	94	80 - 120	0	35		
Chromium	99	99	80 - 120	0	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-11162**

**Method: 6010B  
Preparation: 3050B**

MS Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1305  
Date Prepared: 09/25/2006 0933

Analysis Batch: 580-11184  
Prep Batch: 580-11162

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.2310 g  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1308  
Date Prepared: 09/25/2006 0933

Analysis Batch: 580-11184  
Prep Batch: 580-11162

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0501 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	95	98	75 - 125	18	35		
Lead	83	89	75 - 125	19	35		
Cadmium	87	91	75 - 125	20	35		
Chromium	69	92	75 - 125	20	35	F	

**Duplicate - Batch: 580-11162**

**Method: 6010B  
Preparation: 3050B**

Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/25/2006 1257  
Date Prepared: 09/25/2006 0933

Analysis Batch: 580-11184  
Prep Batch: 580-11162  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.2128 g  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Arsenic	3.66	3.76	3	35	
Lead	8.32	2.41	110	35	F
Cadmium	-0.127	-0.110	NC	35	
Chromium	18.3	12.5	37	35	F

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11170**

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: MB 580-11170/16-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1044  
Date Prepared: 09/25/2006 1110

Analysis Batch: 580-11221  
Prep Batch: 580-11170  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Lead	ND		0.039	0.75
Arsenic	ND		0.22	2.5
Cadmium	ND		0.0041	0.25
Chromium	ND		0.011	0.50

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11170**

**Method: 6010B**  
**Preparation: 3050B**

LCS Lab Sample ID: LCS 580-11170/17-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1114  
Date Prepared: 09/25/2006 1110

Analysis Batch: 580-11221  
Prep Batch: 580-11170  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-11170/18-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1118  
Date Prepared: 09/25/2006 1110

Analysis Batch: 580-11221  
Prep Batch: 580-11170  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	99	102	80 - 120	3	35		
Lead	100	103	80 - 120	2	35		
Cadmium	98	101	80 - 120	3	35		
Chromium	102	105	80 - 120	3	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-11170**

**Method: 6010B  
Preparation: 3050B**

MS Lab Sample ID: 580-3591-37  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1102  
Date Prepared: 09/25/2006 1110

Analysis Batch: 580-11221  
Prep Batch: 580-11170

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0191 g  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-3591-37  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1106  
Date Prepared: 09/25/2006 1110

Analysis Batch: 580-11221  
Prep Batch: 580-11170

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0670 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	97	100	75 - 125	1	35		
Lead	102	94	75 - 125	10	35		
Cadmium	92	94	75 - 125	2	35		
Chromium	142	104	75 - 125	22	35	F	

**Duplicate - Batch: 580-11170**

**Method: 6010B  
Preparation: 3050B**

Lab Sample ID: 580-3591-37  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1054  
Date Prepared: 09/25/2006 1110

Analysis Batch: 580-11221  
Prep Batch: 580-11170  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.1973 g  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Arsenic	3.26	3.05	7	35	
Lead	8.29	10.2	21	35	
Cadmium	-0.206	-0.222	NC	35	
Chromium	15.1	14.9	2	35	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11145**

Lab Sample ID: MB 580-11145/22-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 09/25/2006 0819  
 Date Prepared: 09/22/2006 1436

Analysis Batch: 580-11189  
 Prep Batch: 580-11145  
 Units: mg/L

**Method: 6020  
 Preparation: 3005A  
 Total Recoverable**

Instrument ID: SEA026  
 Lab File ID: N/A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Lead	0.000018	J	0.0000031	0.00040
Arsenic	ND		0.000073	0.00040
Cadmium	ND		0.0000074	0.00040
Chromium	ND		0.000029	0.00040

**Lab Control Spike/  
 Lab Control Spike Duplicate Recovery Report - Batch: 580-11145**

LCS Lab Sample ID: LCS 580-11145/23-A  
 Client Matrix: Water  
 Dilution: 50  
 Date Analyzed: 09/25/2006 0848  
 Date Prepared: 09/22/2006 1436

Analysis Batch: 580-11189  
 Prep Batch: 580-11145  
 Units: mg/L

**Method: 6020  
 Preparation: 3005A  
 Total Recoverable**

Instrument ID: SEA026  
 Lab File ID: N/A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-11145/24-A  
 Client Matrix: Water  
 Dilution: 50  
 Date Analyzed: 09/25/2006 0852  
 Date Prepared: 09/22/2006 1436

Analysis Batch: 580-11189  
 Prep Batch: 580-11145  
 Units: mg/L

Instrument ID: SEA026  
 Lab File ID: N/A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	105	101	80 - 120	4	20		
Lead	92	100	80 - 120	8	20		
Cadmium	93	107	80 - 120	14	20		
Chromium	101	102	80 - 120	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11187**

**Method: 7470A**  
**Preparation: 7470A**

Lab Sample ID: MB 580-11187/16-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1053  
Date Prepared: 09/25/2006 1601

Analysis Batch: 580-11262  
Prep Batch: 580-11187  
Units: mg/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.000088	J	0.000055	0.00020

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11187**

**Method: 7470A**  
**Preparation: 7470A**

LCS Lab Sample ID: LCS 580-11187/17-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1058  
Date Prepared: 09/25/2006 1601

Analysis Batch: 580-11262  
Prep Batch: 580-11187  
Units: mg/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-11187/18-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1103  
Date Prepared: 09/25/2006 1601

Analysis Batch: 580-11262  
Prep Batch: 580-11187  
Units: mg/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	98	107	75 - 125	9	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-11187**

**Method: 7470A  
Preparation: 7470A**

MS Lab Sample ID: 580-3591-6  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/26/2006 0941  
Date Prepared: 09/25/2006 1601

Analysis Batch: 580-11262  
Prep Batch: 580-11187

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-3591-6  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/26/2006 0946  
Date Prepared: 09/25/2006 1601

Analysis Batch: 580-11262  
Prep Batch: 580-11187

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	99	98	75 - 125	1	20		

**Duplicate - Batch: 580-11187**

**Method: 7470A  
Preparation: 7470A**

Lab Sample ID: 580-3591-6  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 09/26/2006 0936  
Date Prepared: 09/25/2006 1601

Analysis Batch: 580-11262  
Prep Batch: 580-11187  
Units: mg/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	-0.0000480	-0.0000850	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11176**

**Method: 7471A**  
**Preparation: 7471A**

Lab Sample ID: MB 580-11176/17-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1312  
Date Prepared: 09/25/2006 1245

Analysis Batch: 580-11260  
Prep Batch: 580-11176  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.015	J	0.0090	0.020

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11176**

**Method: 7471A**  
**Preparation: 7471A**

LCS Lab Sample ID: LCS 580-11176/18-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1248  
Date Prepared: 09/25/2006 1245

Analysis Batch: 580-11260  
Prep Batch: 580-11176  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-11176/19-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1253  
Date Prepared: 09/25/2006 1245

Analysis Batch: 580-11260  
Prep Batch: 580-11176  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5 g  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	81	95	75 - 125	15	25		

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-11176**

**Method: 7471A  
Preparation: 7471A**

MS Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1131  
Date Prepared: 09/25/2006 1245

Analysis Batch: 580-11260  
Prep Batch: 580-11176

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5679 g  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1136  
Date Prepared: 09/25/2006 1245

Analysis Batch: 580-11260  
Prep Batch: 580-11176

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5981 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	108	103	75 - 125	9	35	B	B

**Duplicate - Batch: 580-11176**

**Method: 7471A  
Preparation: 7471A**

Lab Sample ID: 580-3591-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1122  
Date Prepared: 09/25/2006 1245

Analysis Batch: 580-11260  
Prep Batch: 580-11176  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5923 g  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	-0.0160	0.00915	NC	35	J B

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Method Blank - Batch: 580-11178**

**Method: 7471A**  
**Preparation: 7471A**

Lab Sample ID: MB 580-11178/18-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1742  
Date Prepared: 09/25/2006 1403

Analysis Batch: 580-11261  
Prep Batch: 580-11178  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.014	J	0.0090	0.020

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-11178**

**Method: 7471A**  
**Preparation: 7471A**

LCS Lab Sample ID: LCS 580-11178/19-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1748  
Date Prepared: 09/25/2006 1403

Analysis Batch: 580-11261  
Prep Batch: 580-11178  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-11178/20-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1753  
Date Prepared: 09/25/2006 1403

Analysis Batch: 580-11261  
Prep Batch: 580-11178  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5 g  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	99	95	75 - 125	4	25		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-11178**

**Method: 7471A  
Preparation: 7471A**

MS Lab Sample ID: 580-3591-37  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1545  
Date Prepared: 09/25/2006 1403

Analysis Batch: 580-11261  
Prep Batch: 580-11178

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.6373 g  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-3591-37  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1550  
Date Prepared: 09/25/2006 1403

Analysis Batch: 580-11261  
Prep Batch: 580-11178

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.6453 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	67	77	75 - 125	11	35	B F	B

**Duplicate - Batch: 580-11178**

**Method: 7471A  
Preparation: 7471A**

Lab Sample ID: 580-3591-37  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 09/26/2006 1540  
Date Prepared: 09/25/2006 1403

Analysis Batch: 580-11261  
Prep Batch: 580-11178  
Units: mg/Kg

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.6160 g  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.0183	0.00224	NC	35	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## DATA REPORTING QUALIFIERS

Client: GeoEngineers Inc

Job Number: 580-3591-1

Lab Section	Qualifier	Description
GC/MS VOA		
	*	LCS or LCSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	B	Compound was found in the blank and sample.
	*	LCS or LCSD exceeds the control limits
	F	MS or MSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	B	Compound was found in the blank and sample.
	F	MS or MSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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Client: **GEI** Project Manager: **KEVIN BREEM** Date: **9-14-06** Chain of Custody Number: **26629**

Address: **TACOMA WA** Telephone Number (Area Code)/Fax Number: **253 383-4940** Lab Number: **3591** Page **1** of **1**

City: **TACOMA WA** State: **WA** Zip Code: **98400** Site Contact: **Alex Fink** Lab Contact: **Alex Fink**

Project Name and Location (State): **TDO** Carrier/Waybill Number:

Contract/Purchase Order/Quote No.:

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix			Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt								
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH			ZnAc/ NaOH							
PP13-060914-000	9-14-06	1100				X	X	X	X	X	X	X	X	X							
PP13-060914-020		1105				X	X	X	X	X	X	X	X	X							
PP13-060914-040		1110				X	X	X	X	X	X	X	X	X							
PP13-060914-060		1115				X	X	X	X	X	X	X	X	X							
PP13-060914-080		1120				X	X	X	X	X	X	X	X	X							
PP13-060914-W		1130				X	X	X	X	X	X	X	X	X							
PP13-060914-W DUP		1140				X	X	X	X	X	X	X	X	X							
PP14-060914-040		1240				X	X	X	X	X	X	X	X	X							
PP14-060914-060		1245				X	X	X	X	X	X	X	X	X							
PP14-060914-080		1250				X	X	X	X	X	X	X	X	X							
PP14-060914-W		1315				X	X	X	X	X	X	X	X	X							
PP15-060914-000		1400				X	X	X	X	X	X	X	X	X							

QC Requirements (Specify) **METHANOL**

Analysis (Attach list if more space is needed):  
 NWTPH-Gx  
 NWTPH-Dx  
 MTEA 6000/7000  
 VOC 8260B  
 SVOC 8270C  
 CPAH 8270C-SU  
 MERCURY 1471A  
 HOLD

Special Instructions/  
 Conditions of Receipt: **DAL NWTPH-Dx will include Acid/Sulfate CELL CLEANUP**

Cooler  Yes  No Cooler Temp:  Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client  Archive For **1** Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days):  24 Hours  48 Hours  5 Days  10 Days  15 Days  Other

1. Relinquished By: **Alex Fink** Date: **9-15-06** Time: **6:30**

2. Relinquished By: **Alex Fink** Date: **9-15-06** Time: **6:30pm**

3. Relinquished By:  Date:  Time:

1. Received By: **Alex Fink** Date: **9-15-06** Time: **6:30pm**

2. Received By: **Alex Fink** Date: **9-15-06** Time: **6:30pm**

3. Received By:  Date:  Time:

Comments:

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Client: **GE 1** Project Manager: **Kevin Broom** Date: **9-14-06** Chain of Custody Number: **26630 2**

Address: **WA** State: **WA** Zip Code: **98001** Telephone Number (Area Code)/Fax Number: **253-383-4940** Lab Number: **3591**

City: **WA** Project Name and Location (State): **Alex Fune** Site Contact: **Alex Fune** Lab Contact: **Alex Fune**

Contract/Purchase Order/Quote No.: **TDD** Carrier/Waybill Number: **Alex Fune**

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix						Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt			
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Methanol						
PP15-060914-020	9-14-06	1405	X																
PP15-060914-040		1415	X																
PP15-060914-060		1420	X																
PP15-060914-W		1430	X																
PP16-060914-000		1500	X																
PP16-060914-020		1505	X																
PP16-060914-040		1510	X																
PP16-060914-060		1515	X																
PP16-060914-080		1520	X																
PP16-060914-W		1315	X																
PP17-060914-000		1540	X																

QC Requirements (Specify): **Disposal For 12 Months**

Sample Disposal:  Return To Client  Disposal By Lab

1. Relinquished By: **[Signature]** Date: **9-15-06** Time: **6:30**

2. Relinquished By: **[Signature]** Date: **9-15-06** Time: **6:30pm**

3. Relinquished By: **[Signature]** Date: **9-15-06** Time: **6:30pm**

Comments: **[Blank]**

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Client: **GE 1** Project Manager: **Kenn Breen** Date: **9-14-06** Chain of Custody Number: **9150626631**

Address: **Tacoma WA** Telephone Number (Area Code)/Fax Number: **253-383-4640** Lab Number: **3591** Page **2** of **2**

City: **Tacoma WA** State: **WA** Zip Code: **98400** Site Contact: **Alex Phine** Lab Contact: **Alex Phine**

Project Name and Location (State): **Tacoma WA** Carrier/Waybill Number: **700** Matrix: **METHANOL** Containers & Preservatives: **METHANOL**

Contract/Purchase Order/Quote No.: **700** Analysis (Attach list if more space is needed): **NWPH-DX, MTA 6000, VOC 8260, SMC 8270 C, CRPH 8270C SIM, MERCURY 1471A, HPL**

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt		
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH				
PP17-060914-020	9-14-06	1545				X										
PP17-060914-040		1550				X										
PP17-060914-060		1600				X										
PP17-060914-080		1605				X										
PP17-060514-W		1610				X										
PP09-060915-W	9-15-06	1230				X										Hg + metals only this sample @ 9/18
PP11-060915-W	9/15/06	1000				X										
PPA-060915-W	9/15/06	0905				X										

Cooler:  Yes  No Cooler Temp: \_\_\_\_\_ Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client  Archive For \_\_\_\_\_ Months

Turn Around Time Required (business days):  24 Hours  48 Hours  5 Days  10 Days  15 Days  Other \_\_\_\_\_

QC Requirements (Specify): \_\_\_\_\_

Sample Disposal:  Disposal By Lab  Return To Client  Archive For \_\_\_\_\_ Months

(A fee may be assessed if samples are retained longer than 1 month)

1. Relinquished By: **ATL** Date: **9-15-06** Time: **6:30** I. Received By: **Alex Phine** Date: **9-15-06** Time: **6:30pm**

2. Relinquished By: **ATL** Date: \_\_\_\_\_ Time: \_\_\_\_\_ 2. Received By: **Alex Phine** Date: \_\_\_\_\_ Time: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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

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Client: **GEI** Project Manager: **Kevin Baer** Date: **9-15-06** Chain of Custody Number: **26632**

Address: **TACOMA WA 98160** Telephone Number (Area Code)/Fax Number: **Carrier/Maybill Number** Lab Number: **3591** Page: **1** of **4**

City: **TACOMA** State: **WA** Zip Code: **98160** Site Contact: **Alex Fluke** Lab Contact: **Carrier/Maybill Number**

Contract/Purchase Order/Quote No. **TDO** Matrix: **METHANOL** Containers & Preservatives: **METHANOL**

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Analysis (Attach list if more space is needed)				Special Instructions/ Conditions of Receipt		
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	MTA	MTA	MTA	MTA			
1. PP12 - 060915-000	9-15-16	820																	
2. PP12 - 060915-020		825																	
3. PP12 - 060915-040		830																	
4. PP12 - 060915-060		835																	
5. PP12 - 060915-080		840																	
6. PP11 - 060915-000		8900																	
7. PP11 - 060915-020		905																	
8. PP11 - 060915-040		910																	
9. PP11 - 060915-060		915																	
10. PP11 - 060915-080		920																	
11. PP11 - 060915-080 DUD		925																	
12. PP10 - 060915-000		1015																	

Cooler:  Yes  No Cooler Temp: \_\_\_\_\_ Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Sample Disposal:  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Turn Around Time Required (Business days):  24 Hours  48 Hours  5 Days  10 Days  15 Days  Other \_\_\_\_\_

QC Requirements (Specify): \_\_\_\_\_

(A fee may be assessed if samples are retained longer than 1 month)

1. Relinquished By: **[Signature]** Date: **9-15-06** Time: **630** 1. Received By: **[Signature]** Date: **9-15-06** Time: **6:30pm**

2. Relinquished By: **[Signature]** Date: \_\_\_\_\_ Time: \_\_\_\_\_ 2. Received By: **[Signature]** Date: \_\_\_\_\_ Time: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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

DISTRIBUTION: WHITE - Stays with the Samples; CANARY - Returned to Client with Report; PINK - Field Copy

STL8274-580 (12/02)



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Client: **GEI** Project Manager: **KEVIN BREWSTER** Date: **9-15-06** Chain of Custody Number: **26634**

Address: **TACOMA WA** Telephone Number (Area Code)/Fax Number: **253-383-4440** Lab Number: **3591** Page **5** of **5**

City: **TACOMA WA** State: **WA** Zip Code: **98406** Site Contact: **Alex Fink** Lab Contact: **Alex Fink**

Project Name and Location (State): **HPD** Carrier/Waybill Number: **HPD**

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt		
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH				
3 PP10-060915-020	9-15-06	1020														
4 PP10-060915-040		1015														
5 PP10-060915-060		1030														
6 PP10-060915-080		1035														
7 PP10-060915-100		1045		X				2	17							
8 PP09-060915-020		1150														
9 PP09-060915-040		1155														
10 PP09-060915-060		1200														
11 PP09-060915-080		1205														
12 PP09-060915-100		1210														
13 PP09-060915-080		1215														
14 PP09-060915-080-DUP		1220														

Cooler:  Yes  No Cooler Temp: \_\_\_\_\_ Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Turn Around Time Required (business days):  24 Hours  48 Hours  5 Days  10 Days  15 Days  Other \_\_\_\_\_

QC Requirements (Specify): \_\_\_\_\_

Sample Disposal:  Return To Client  Archive For \_\_\_\_\_ Months  Disposal By Lab (A fee may be assessed if samples are retained longer than 1 month)

1. Relinquished By: **Alex Fink** Date: **9-15-06** Time: **6:30**

2. Relinquished By: **[Signature]** Date: **9-15-06** Time: **6:30 pm**

3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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

## LOGIN SAMPLE RECEIPT CHECK LIST

Client: GeoEngineers Inc

Job Number: 580-3591-1

**Login Number: 3591**

<b>Question</b>	<b>T/F/NA</b>	<b>Comment</b>
Radioactivity either was not measured or, if measured, is at or below background		
The cooler's custody seal, if present, is intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
There are no discrepancies between the sample IDs on the containers and the COC.		
Samples are received within Holding Time.		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.		
If necessary, staff have been informed of any short hold time or quick TAT needs		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		

## ANALYTICAL REPORT

Job Number: 580-9461-1

Job Description: 0415-049-02-City of Olympia

For:

GeoEngineers Inc  
1101 Fawcett, Suite 200  
Tacoma, WA 98402

Attention: Kevin M Broom



---

Heather Curbow  
Project Manager I  
heather.curbow@testamericainc.com  
04/14/2008

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This report shall not be reproduced except in full, without prior express written approval by the laboratory. The results relate only to the item(s) tested and the sample(s) as received by the laboratory.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted in the case narrative.

**TestAmerica Laboratories, Inc.**

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**Job Narrative**  
**580-J9461-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method(s) 5035: 8035/8260B

Due to percent moisture values greater than 10%, the final volumes for all samples associated with job 9460 and 9461 were corrected for solvent/water dilution effect. Corrected FV= ((g of sample \* % moisture/100) + ml of MeOH) \* 40 (dilution factor)

Trifluorotoluene surrogate recovery for samples 9461-11 and 14 was outside control limits. Re-extraction and re-analysis was performed with concurring results, loss could be attributed to matrix interference. All other surrogates were within control limits. The original analysis has been reported, and no further corrective action was taken.

No other analytical or quality issues were noted.

**GC/MS Semi VOA**

No analytical or quality issues were noted.

**GC Semi VOA**

Method(s) 8082: The laboratory control standard (LCS) for preparation batch 29867 exceeded control limits for PCB 1260. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has been reported.

Method(s) 8082: Several samples including the MS/MSD had high recoveries for at least one or both surrogates. The recovery was high and no target analytes were detected in the samples. No further action was taken on this outlier.

No other analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## METHOD SUMMARY

Client: GeoEngineers Inc

Job Number: 580-9461-1

<b>Description</b>	<b>Lab Location</b>	<b>Method</b>	<b>Preparation Method</b>
<b>Matrix: Solid</b>			
Volatile Organic Compounds by GC/MS	TAL TAC	SW846 8260B	
Closed System Purge & Trap/Field Methanol	TAL TAC		SW846 5035
Volatile Petroleum Products	TAL TAC	NWTPH NWTPH-Gx	
Closed System Purge & Trap/Field Methanol	TAL TAC		SW846 5035
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	TAL TAC	SW846 8270C	
Ultrasonic Extraction (Low Level)	TAL TAC		SW846 3550B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL TAC	SW846 8082	
Ultrasonic Extraction (Low Level)	TAL TAC		SW846 3550B
Semi-Volatile Petroleum Products by NWTPH-Dx	TAL TAC	NWTPH NWTPH-Dx	
Ultrasonic Extraction	TAL TAC		SW846 3550B
Silica Gel Cleanup	TAL TAC		SW846 3630C
Inductively Coupled Plasma - Atomic Emission Spectrometry	TAL TAC	SW846 6010B	
Acid Digestion of Sediments, Sludges, and Soils	TAL TAC		SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL TAC	SW846 7471A	
Mercury in Solid or Semi-Solid Waste (Manual Cold	TAL TAC		SW846 7471A

### Lab References:

TAL TAC = TestAmerica Tacoma

### Method References:

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: GeoEngineers Inc

Job Number: 580-9461-1

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
580-9461-2	B1-032608-7	Solid	03/26/2008 0910	03/31/2008 1410
580-9461-3	B1-032608-10	Solid	03/26/2008 0915	03/31/2008 1410
580-9461-5	B2-032608-7	Solid	03/26/2008 1200	03/31/2008 1410
580-9461-6	B2-032608-10	Solid	03/26/2008 1210	03/31/2008 1410
580-9461-8	B3-032608-7	Solid	03/26/2008 1025	03/31/2008 1410
580-9461-9	B3-032608-10	Solid	03/26/2008 1030	03/31/2008 1410
580-9461-11	MW4-032608-6	Solid	03/26/2008 1320	03/31/2008 1410
580-9461-12	MW4-032608-9	Solid	03/26/2008 1330	03/31/2008 1410
580-9461-14	MW5-032608-7	Solid	03/26/2008 1440	03/31/2008 1410
580-9461-15	MW5-032608-9	Solid	03/26/2008 1445	03/31/2008 1410

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-7**

Lab Sample ID: 580-9461-2

Date Sampled: 03/26/2008 0910

Client Matrix: Solid

% Moisture: 21.3

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100980.D
Dilution:	1.0		Initial Weight/Volume: 12.26 g
Date Analyzed:	04/02/2008 1400		Final Weight/Volume: 402.6 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0058	0.042
Chloromethane		ND		0.0076	0.042
Vinyl chloride		ND		0.0054	0.017
Bromomethane		ND		0.029	0.21
Chloroethane		ND		0.030	0.21
Trichlorofluoromethane		ND		0.0040	0.042
1,1-Dichloroethene		ND		0.0055	0.017
Methylene Chloride		0.066	B	0.0064	0.042
trans-1,2-Dichloroethene		ND		0.0045	0.042
1,1-Dichloroethane		ND		0.0099	0.042
2,2-Dichloropropane		ND		0.0049	0.042
cis-1,2-Dichloroethene		ND		0.0063	0.042
Chlorobromomethane		ND		0.0050	0.042
Chloroform		ND		0.0040	0.042
1,1,1-Trichloroethane		ND		0.0041	0.017
Carbon tetrachloride		ND		0.0031	0.017
1,1-Dichloropropene		ND		0.0032	0.042
1,1,1,2-Tetrachloroethane		ND		0.0040	0.042
Benzene		ND		0.0029	0.0083
1,2-Dichloroethane		ND		0.0084	0.042
Trichloroethene		ND		0.0031	0.017
1,2-Dichloropropane		0.0032	J	0.0026	0.0083
Dibromomethane		ND		0.0076	0.042
Dichlorobromomethane		ND		0.0029	0.042
cis-1,3-Dichloropropene		ND		0.0029	0.042
Toluene		ND		0.0077	0.042
trans-1,3-Dichloropropene		ND		0.0029	0.042
1,1,2-Trichloroethane		ND		0.0038	0.042
Tetrachloroethene		ND		0.0076	0.026
1,3-Dichloropropane		ND		0.0044	0.017
Chlorodibromomethane		ND		0.0026	0.042
Ethylene Dibromide		ND		0.0069	0.042
Chlorobenzene		ND		0.013	0.042
Ethylbenzene		ND		0.0075	0.042
1,1,2,2-Tetrachloroethane		ND		0.0025	0.0083
m-Xylene & p-Xylene		ND		0.016	0.042
o-Xylene		ND		0.0075	0.042
Styrene		ND		0.0033	0.042
Bromoform		ND		0.0029	0.042
Isopropylbenzene		ND		0.0064	0.042
Bromobenzene		ND		0.0038	0.042
N-Propylbenzene		ND		0.0072	0.042
1,2,3-Trichloropropane		ND		0.0074	0.042
2-Chlorotoluene		ND		0.0060	0.042

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

Client Sample ID: B1-032608-7

Lab Sample ID: 580-9461-2

Date Sampled: 03/26/2008 0910

Client Matrix: Solid

% Moisture: 21.3

Date Received: 03/31/2008 1410

## 8260B Volatile Organic Compounds by GC/MS

Method: 8260B Analysis Batch: 580-29905 Instrument ID: SEA043  
Preparation: 5035-Medium Prep Batch: 580-29857 Lab File ID: VB00100980.D  
Dilution: 1.0 Initial Weight/Volume: 12.26 g  
Date Analyzed: 04/02/2008 1400 Final Weight/Volume: 402.6 mL  
Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0063	0.042
4-Chlorotoluene		ND		0.0037	0.042
tert-Butylbenzene		ND		0.0035	0.042
1,2,4-Trimethylbenzene		ND		0.0072	0.042
sec-Butylbenzene		ND		0.0017	0.042
1,3-Dichlorobenzene		ND		0.0043	0.042
4-Isopropyltoluene		ND		0.0029	0.042
1,4-Dichlorobenzene		ND		0.0021	0.042
n-Butylbenzene		ND		0.0025	0.042
1,2-Dichlorobenzene		ND		0.0035	0.042
1,2-Dibromo-3-Chloropropane		ND		0.0092	0.042
1,2,4-Trichlorobenzene		ND		0.0041	0.042
1,2,3-Trichlorobenzene		ND		0.0050	0.042
Hexachlorobutadiene		ND		0.0069	0.042
Naphthalene		ND		0.0027	0.042

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	100	75 - 125
Fluorobenzene (Surr)	94	75 - 125
Toluene-d8 (Surr)	101	85 - 115
4-Bromofluorobenzene (Surr)	104	85 - 120
Trifluorotoluene (Surr)	87	75 - 125



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-10**

Lab Sample ID: 580-9461-3

Date Sampled: 03/26/2008 0915

Client Matrix: Solid

% Moisture: 19.1

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100982.D
Dilution:	1.0		Initial Weight/Volume: 9.49 g
Date Analyzed:	04/02/2008 1423		Final Weight/Volume: 401.8 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0073	0.052
Chloromethane		ND		0.0095	0.052
Vinyl chloride		ND		0.0068	0.021
Bromomethane		ND		0.037	0.26
Chloroethane		ND		0.038	0.26
Trichlorofluoromethane		ND		0.0050	0.052
1,1-Dichloroethene		ND		0.0069	0.021
Methylene Chloride		0.010	J B	0.0080	0.052
trans-1,2-Dichloroethene		ND		0.0056	0.052
1,1-Dichloroethane		ND		0.012	0.052
2,2-Dichloropropane		ND		0.0061	0.052
cis-1,2-Dichloroethene		ND		0.0078	0.052
Chlorobromomethane		ND		0.0063	0.052
Chloroform		ND		0.0050	0.052
1,1,1-Trichloroethane		ND		0.0051	0.021
Carbon tetrachloride		ND		0.0039	0.021
1,1-Dichloropropene		ND		0.0041	0.052
1,1,1,2-Tetrachloroethane		ND		0.0050	0.052
Benzene		ND		0.0037	0.010
1,2-Dichloroethane		ND		0.011	0.052
Trichloroethene		ND		0.0039	0.021
1,2-Dichloropropane		ND		0.0033	0.010
Dibromomethane		ND		0.0095	0.052
Dichlorobromomethane		ND		0.0037	0.052
cis-1,3-Dichloropropene		ND		0.0037	0.052
Toluene		ND		0.0097	0.052
trans-1,3-Dichloropropene		ND		0.0037	0.052
1,1,2-Trichloroethane		ND		0.0047	0.052
Tetrachloroethene		ND		0.0095	0.033
1,3-Dichloropropane		ND		0.0055	0.021
Chlorodibromomethane		ND		0.0033	0.052
Ethylene Dibromide		ND		0.0086	0.052
Chlorobenzene		ND		0.016	0.052
Ethylbenzene		ND		0.0094	0.052
1,1,2,2-Tetrachloroethane		ND		0.0031	0.010
m-Xylene & p-Xylene		ND		0.020	0.052
o-Xylene		ND		0.0094	0.052
Styrene		ND		0.0042	0.052
Bromoform		ND		0.0037	0.052
Isopropylbenzene		ND		0.0080	0.052
Bromobenzene		ND		0.0047	0.052
N-Propylbenzene		ND		0.0090	0.052
1,2,3-Trichloropropane		ND		0.0093	0.052
2-Chlorotoluene		ND		0.0076	0.052

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-10**

Lab Sample ID: 580-9461-3

Date Sampled: 03/26/2008 0915

Client Matrix: Solid

% Moisture: 19.1

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100982.D
Dilution:	1.0		Initial Weight/Volume: 9.49 g
Date Analyzed:	04/02/2008 1423		Final Weight/Volume: 401.8 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0078	0.052
4-Chlorotoluene		ND		0.0046	0.052
tert-Butylbenzene		ND		0.0044	0.052
1,2,4-Trimethylbenzene		ND		0.0090	0.052
sec-Butylbenzene		ND		0.0021	0.052
1,3-Dichlorobenzene		ND		0.0054	0.052
4-Isopropyltoluene		ND		0.0037	0.052
1,4-Dichlorobenzene		ND		0.0026	0.052
n-Butylbenzene		ND		0.0031	0.052
1,2-Dichlorobenzene		ND		0.0044	0.052
1,2-Dibromo-3-Chloropropane		ND		0.012	0.052
1,2,4-Trichlorobenzene		ND		0.0051	0.052
1,2,3-Trichlorobenzene		ND		0.0063	0.052
Hexachlorobutadiene		ND		0.0086	0.052
Naphthalene		ND		0.0034	0.052

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	102	75 - 125
Fluorobenzene (Surr)	92	75 - 125
Toluene-d8 (Surr)	102	85 - 115
4-Bromofluorobenzene (Surr)	104	85 - 120
Trifluorotoluene (Surr)	84	75 - 125

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-7**

Lab Sample ID: 580-9461-5

Date Sampled: 03/26/2008 1200

Client Matrix: Solid

% Moisture: 75.1

Date Received: 03/31/2008 1410

## 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100984.D
Dilution:	1.0		Initial Weight/Volume: 10.49 g
Date Analyzed:	04/02/2008 1446		Final Weight/Volume: 714.7 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.038	0.27
Chloromethane		ND		0.050	0.27
Vinyl chloride		0.33		0.036	0.11
Bromomethane		ND		0.19	1.4
Chloroethane		ND		0.20	1.4
Trichlorofluoromethane		ND		0.026	0.27
1,1-Dichloroethene		ND		0.036	0.11
Methylene Chloride		0.082	J B	0.042	0.27
trans-1,2-Dichloroethene		0.55		0.029	0.27
1,1-Dichloroethane		ND		0.065	0.27
2,2-Dichloropropane		ND		0.032	0.27
cis-1,2-Dichloroethene		0.92		0.041	0.27
Chlorobromomethane		ND		0.033	0.27
Chloroform		ND		0.026	0.27
1,1,1-Trichloroethane		ND		0.027	0.11
Carbon tetrachloride		ND		0.020	0.11
1,1-Dichloropropene		ND		0.021	0.27
1,1,1,2-Tetrachloroethane		ND		0.026	0.27
Benzene		1.0		0.019	0.055
1,2-Dichloroethane		ND		0.055	0.27
Trichloroethene		0.90		0.020	0.11
1,2-Dichloropropane		ND		0.017	0.055
Dibromomethane		ND		0.050	0.27
Dichlorobromomethane		ND		0.019	0.27
cis-1,3-Dichloropropene		ND		0.019	0.27
Toluene		0.084	J	0.051	0.27
trans-1,3-Dichloropropene		ND		0.019	0.27
1,1,2-Trichloroethane		ND		0.025	0.27
Tetrachloroethene		ND		0.050	0.17
1,3-Dichloropropane		ND		0.029	0.11
Chlorodibromomethane		ND		0.017	0.27
Ethylene Dibromide		ND		0.045	0.27
Chlorobenzene		ND		0.082	0.27
Ethylbenzene		ND		0.049	0.27
1,1,2,2-Tetrachloroethane		ND		0.016	0.055
m-Xylene & p-Xylene		ND		0.10	0.27
o-Xylene		ND		0.049	0.27
Styrene		ND		0.022	0.27
Bromoform		ND		0.019	0.27
Isopropylbenzene		ND		0.042	0.27
Bromobenzene		ND		0.025	0.27
N-Propylbenzene		ND		0.047	0.27
1,2,3-Trichloropropane		ND		0.049	0.27
2-Chlorotoluene		ND		0.040	0.27

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-7**

Lab Sample ID: 580-9461-5

Date Sampled: 03/26/2008 1200

Client Matrix: Solid

% Moisture: 75.1

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-29905

Instrument ID: SEA043

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: VB00100984.D

Dilution: 1.0

Initial Weight/Volume: 10.49 g

Date Analyzed: 04/02/2008 1446

Final Weight/Volume: 714.7 mL

Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.041	0.27
4-Chlorotoluene		ND		0.024	0.27
tert-Butylbenzene		ND		0.023	0.27
1,2,4-Trimethylbenzene		ND		0.047	0.27
sec-Butylbenzene		0.025	J	0.011	0.27
1,3-Dichlorobenzene		ND		0.028	0.27
4-Isopropyltoluene		0.032	J	0.019	0.27
1,4-Dichlorobenzene		ND		0.014	0.27
n-Butylbenzene		ND		0.016	0.27
1,2-Dichlorobenzene		ND		0.023	0.27
1,2-Dibromo-3-Chloropropane		ND		0.060	0.27
1,2,4-Trichlorobenzene		ND		0.027	0.27
1,2,3-Trichlorobenzene		ND		0.033	0.27
Hexachlorobutadiene		ND		0.045	0.27
Naphthalene		ND		0.018	0.27

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	100	75 - 125
Fluorobenzene (Surr)	93	75 - 125
Toluene-d8 (Surr)	105	85 - 115
4-Bromofluorobenzene (Surr)	101	85 - 120
Trifluorotoluene (Surr)	125	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-10**

Lab Sample ID: 580-9461-6

Date Sampled: 03/26/2008 1210

Client Matrix: Solid

% Moisture: 38.7

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100986.D
Dilution:	1.0		Initial Weight/Volume: 13.64 g
Date Analyzed:	04/02/2008 1509		Final Weight/Volume: 405.3 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0068	0.048
Chloromethane		ND		0.0088	0.048
Vinyl chloride		ND		0.0063	0.019
Bromomethane		ND		0.034	0.24
Chloroethane		ND		0.035	0.24
Trichlorofluoromethane		ND		0.0046	0.048
1,1-Dichloroethene		ND		0.0064	0.019
Methylene Chloride		0.023	J B	0.0074	0.048
trans-1,2-Dichloroethene		ND		0.0052	0.048
1,1-Dichloroethane		ND		0.012	0.048
2,2-Dichloropropane		ND		0.0057	0.048
cis-1,2-Dichloroethene		ND		0.0073	0.048
Chlorobromomethane		ND		0.0058	0.048
Chloroform		ND		0.0046	0.048
1,1,1-Trichloroethane		ND		0.0047	0.019
Carbon tetrachloride		ND		0.0036	0.019
1,1-Dichloropropene		ND		0.0038	0.048
1,1,1,2-Tetrachloroethane		ND		0.0046	0.048
Benzene		ND		0.0034	0.0097
1,2-Dichloroethane		ND		0.0098	0.048
Trichloroethene		ND		0.0036	0.019
1,2-Dichloropropane		ND		0.0030	0.0097
Dibromomethane		ND		0.0088	0.048
Dichlorobromomethane		ND		0.0034	0.048
cis-1,3-Dichloropropene		ND		0.0034	0.048
Toluene		ND		0.0090	0.048
trans-1,3-Dichloropropene		ND		0.0034	0.048
1,1,2-Trichloroethane		ND		0.0044	0.048
Tetrachloroethene		ND		0.0088	0.030
1,3-Dichloropropane		ND		0.0051	0.019
Chlorodibromomethane		ND		0.0030	0.048
Ethylene Dibromide		ND		0.0080	0.048
Chlorobenzene		ND		0.015	0.048
Ethylbenzene		ND		0.0087	0.048
1,1,2,2-Tetrachloroethane		ND		0.0029	0.0097
m-Xylene & p-Xylene		ND		0.018	0.048
o-Xylene		ND		0.0087	0.048
Styrene		ND		0.0039	0.048
Bromoform		ND		0.0034	0.048
Isopropylbenzene		ND		0.0074	0.048
Bromobenzene		ND		0.0044	0.048
N-Propylbenzene		ND		0.0084	0.048
1,2,3-Trichloropropane		ND		0.0086	0.048
2-Chlorotoluene		ND		0.0070	0.048

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-10**

Lab Sample ID: 580-9461-6

Date Sampled: 03/26/2008 1210

Client Matrix: Solid

% Moisture: 38.7

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-29905

Instrument ID: SEA043

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: VB00100986.D

Dilution: 1.0

Initial Weight/Volume: 13.64 g

Date Analyzed: 04/02/2008 1509

Final Weight/Volume: 405.3 mL

Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0073	0.048
4-Chlorotoluene		ND		0.0042	0.048
tert-Butylbenzene		ND		0.0041	0.048
1,2,4-Trimethylbenzene		ND		0.0084	0.048
sec-Butylbenzene		ND		0.0019	0.048
1,3-Dichlorobenzene		ND		0.0050	0.048
4-Isopropyltoluene		ND		0.0034	0.048
1,4-Dichlorobenzene		ND		0.0024	0.048
n-Butylbenzene		ND		0.0029	0.048
1,2-Dichlorobenzene		ND		0.0041	0.048
1,2-Dibromo-3-Chloropropane		ND		0.011	0.048
1,2,4-Trichlorobenzene		ND		0.0047	0.048
1,2,3-Trichlorobenzene		ND		0.0058	0.048
Hexachlorobutadiene		ND		0.0080	0.048
Naphthalene		ND		0.0032	0.048

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	101	75 - 125
Fluorobenzene (Surr)	94	75 - 125
Toluene-d8 (Surr)	104	85 - 115
4-Bromofluorobenzene (Surr)	104	85 - 120
Trifluorotoluene (Surr)	90	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-7**

Lab Sample ID: 580-9461-8

Date Sampled: 03/26/2008 1025

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100988.D
Dilution:	1.0		Initial Weight/Volume: 12.26 g
Date Analyzed:	04/02/2008 1532		Final Weight/Volume: 402.8 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0060	0.043
Chloromethane		ND		0.0078	0.043
Vinyl chloride		ND		0.0056	0.017
Bromomethane		ND		0.030	0.21
Chloroethane		ND		0.031	0.21
Trichlorofluoromethane		ND		0.0041	0.043
1,1-Dichloroethene		ND		0.0057	0.017
Methylene Chloride		0.019	J B	0.0065	0.043
trans-1,2-Dichloroethene		ND		0.0046	0.043
1,1-Dichloroethane		ND		0.010	0.043
2,2-Dichloropropane		ND		0.0050	0.043
cis-1,2-Dichloroethene		ND		0.0064	0.043
Chlorobromomethane		ND		0.0051	0.043
Chloroform		ND		0.0041	0.043
1,1,1-Trichloroethane		ND		0.0042	0.017
Carbon tetrachloride		ND		0.0032	0.017
1,1-Dichloropropene		ND		0.0033	0.043
1,1,1,2-Tetrachloroethane		ND		0.0041	0.043
Benzene		ND		0.0030	0.0085
1,2-Dichloroethane		ND		0.0086	0.043
Trichloroethene		0.0046	J	0.0032	0.017
1,2-Dichloropropane		ND		0.0027	0.0085
Dibromomethane		ND		0.0078	0.043
Dichlorobromomethane		ND		0.0030	0.043
cis-1,3-Dichloropropene		ND		0.0030	0.043
Toluene		0.0099	J	0.0079	0.043
trans-1,3-Dichloropropene		ND		0.0030	0.043
1,1,2-Trichloroethane		ND		0.0038	0.043
Tetrachloroethene		ND		0.0078	0.027
1,3-Dichloropropane		ND		0.0045	0.017
Chlorodibromomethane		ND		0.0027	0.043
Ethylene Dibromide		ND		0.0070	0.043
Chlorobenzene		ND		0.013	0.043
Ethylbenzene		ND		0.0077	0.043
1,1,2,2-Tetrachloroethane		ND		0.0026	0.0085
m-Xylene & p-Xylene		ND		0.016	0.043
o-Xylene		ND		0.0077	0.043
Styrene		ND		0.0034	0.043
Bromoform		ND		0.0030	0.043
Isopropylbenzene		ND		0.0065	0.043
Bromobenzene		ND		0.0038	0.043
N-Propylbenzene		ND		0.0074	0.043
1,2,3-Trichloropropane		ND		0.0076	0.043
2-Chlorotoluene		ND		0.0062	0.043

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

Client Sample ID: B3-032608-7

Lab Sample ID: 580-9461-8

Date Sampled: 03/26/2008 1025

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/31/2008 1410

## 8260B Volatile Organic Compounds by GC/MS

Method: 8260B Analysis Batch: 580-29905 Instrument ID: SEA043  
Preparation: 5035-Medium Prep Batch: 580-29857 Lab File ID: VB00100988.D  
Dilution: 1.0 Initial Weight/Volume: 12.26 g  
Date Analyzed: 04/02/2008 1532 Final Weight/Volume: 402.8 mL  
Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0064	0.043
4-Chlorotoluene		ND		0.0037	0.043
tert-Butylbenzene		ND		0.0036	0.043
1,2,4-Trimethylbenzene		ND		0.0074	0.043
sec-Butylbenzene		ND		0.0017	0.043
1,3-Dichlorobenzene		ND		0.0044	0.043
4-Isopropyltoluene		ND		0.0030	0.043
1,4-Dichlorobenzene		ND		0.0021	0.043
n-Butylbenzene		ND		0.0026	0.043
1,2-Dichlorobenzene		ND		0.0036	0.043
1,2-Dibromo-3-Chloropropane		ND		0.0094	0.043
1,2,4-Trichlorobenzene		ND		0.0042	0.043
1,2,3-Trichlorobenzene		ND		0.0051	0.043
Hexachlorobutadiene		ND		0.0070	0.043
Naphthalene		ND		0.0028	0.043

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	101	75 - 125
Fluorobenzene (Surr)	92	75 - 125
Toluene-d8 (Surr)	103	85 - 115
4-Bromofluorobenzene (Surr)	103	85 - 120
Trifluorotoluene (Surr)	90	75 - 125



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-10**

Lab Sample ID: 580-9461-9

Date Sampled: 03/26/2008 1030

Client Matrix: Solid

% Moisture: 17.0

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100990.D
Dilution:	1.0		Initial Weight/Volume: 10.33 g
Date Analyzed:	04/02/2008 1555		Final Weight/Volume: 401.8 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0066	0.047
Chloromethane		ND		0.0086	0.047
Vinyl chloride		ND		0.0061	0.019
Bromomethane		ND		0.033	0.23
Chloroethane		ND		0.034	0.23
Trichlorofluoromethane		ND		0.0045	0.047
1,1-Dichloroethene		ND		0.0062	0.019
Methylene Chloride		0.014	J B	0.0071	0.047
trans-1,2-Dichloroethene		ND		0.0050	0.047
1,1-Dichloroethane		ND		0.011	0.047
2,2-Dichloropropane		ND		0.0055	0.047
cis-1,2-Dichloroethene		ND		0.0070	0.047
Chlorobromomethane		ND		0.0056	0.047
Chloroform		ND		0.0045	0.047
1,1,1-Trichloroethane		ND		0.0046	0.019
Carbon tetrachloride		ND		0.0035	0.019
1,1-Dichloropropene		ND		0.0036	0.047
1,1,1,2-Tetrachloroethane		ND		0.0045	0.047
Benzene		ND		0.0033	0.0094
1,2-Dichloroethane		ND		0.0095	0.047
Trichloroethene		ND		0.0035	0.019
1,2-Dichloropropane		ND		0.0029	0.0094
Dibromomethane		ND		0.0086	0.047
Dichlorobromomethane		ND		0.0033	0.047
cis-1,3-Dichloropropene		ND		0.0033	0.047
Toluene		ND		0.0087	0.047
trans-1,3-Dichloropropene		ND		0.0033	0.047
1,1,2-Trichloroethane		ND		0.0042	0.047
Tetrachloroethene		ND		0.0086	0.029
1,3-Dichloropropane		ND		0.0049	0.019
Chlorodibromomethane		ND		0.0029	0.047
Ethylene Dibromide		ND		0.0077	0.047
Chlorobenzene		ND		0.014	0.047
Ethylbenzene		ND		0.0084	0.047
1,1,2,2-Tetrachloroethane		ND		0.0028	0.0094
m-Xylene & p-Xylene		ND		0.018	0.047
o-Xylene		ND		0.0084	0.047
Styrene		ND		0.0037	0.047
Bromoform		ND		0.0033	0.047
Isopropylbenzene		ND		0.0071	0.047
Bromobenzene		ND		0.0042	0.047
N-Propylbenzene		ND		0.0081	0.047
1,2,3-Trichloropropane		ND		0.0083	0.047
2-Chlorotoluene		ND		0.0068	0.047

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-10**

Lab Sample ID: 580-9461-9

Date Sampled: 03/26/2008 1030

Client Matrix: Solid

% Moisture: 17.0

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-29905

Instrument ID: SEA043

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: VB00100990.D

Dilution: 1.0

Initial Weight/Volume: 10.33 g

Date Analyzed: 04/02/2008 1555

Final Weight/Volume: 401.8 mL

Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0070	0.047
4-Chlorotoluene		ND		0.0041	0.047
tert-Butylbenzene		ND		0.0040	0.047
1,2,4-Trimethylbenzene		ND		0.0081	0.047
sec-Butylbenzene		ND		0.0019	0.047
1,3-Dichlorobenzene		ND		0.0048	0.047
4-Isopropyltoluene		ND		0.0033	0.047
1,4-Dichlorobenzene		ND		0.0023	0.047
n-Butylbenzene		ND		0.0028	0.047
1,2-Dichlorobenzene		ND		0.0040	0.047
1,2-Dibromo-3-Chloropropane		ND		0.010	0.047
1,2,4-Trichlorobenzene		ND		0.0046	0.047
1,2,3-Trichlorobenzene		ND		0.0056	0.047
Hexachlorobutadiene		ND		0.0077	0.047
Naphthalene		ND		0.0030	0.047

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	100	75 - 125
Fluorobenzene (Surr)	92	75 - 125
Toluene-d8 (Surr)	103	85 - 115
4-Bromofluorobenzene (Surr)	103	85 - 120
Trifluorotoluene (Surr)	92	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-6**

Lab Sample ID: 580-9461-11

Date Sampled: 03/26/2008 1320

Client Matrix: Solid

% Moisture: 18.4

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100992.D
Dilution:	1.0		Initial Weight/Volume: 13.86 g
Date Analyzed:	04/02/2008 1618		Final Weight/Volume: 402.6 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0050	0.036
Chloromethane		ND		0.0065	0.036
Vinyl chloride		ND		0.0046	0.014
Bromomethane		ND		0.025	0.18
Chloroethane		ND		0.026	0.18
Trichlorofluoromethane		ND		0.0034	0.036
1,1-Dichloroethene		ND		0.0047	0.014
Methylene Chloride		0.0078	J B	0.0054	0.036
trans-1,2-Dichloroethene		ND		0.0038	0.036
1,1-Dichloroethane		ND		0.0085	0.036
2,2-Dichloropropane		ND		0.0042	0.036
cis-1,2-Dichloroethene		ND		0.0053	0.036
Chlorobromomethane		ND		0.0043	0.036
Chloroform		ND		0.0034	0.036
1,1,1-Trichloroethane		ND		0.0035	0.014
Carbon tetrachloride		ND		0.0027	0.014
1,1-Dichloropropene		ND		0.0028	0.036
1,1,1,2-Tetrachloroethane		ND		0.0034	0.036
Benzene		ND		0.0025	0.0071
1,2-Dichloroethane		ND		0.0072	0.036
Trichloroethene		ND		0.0027	0.014
1,2-Dichloropropane		0.0030	J	0.0022	0.0071
Dibromomethane		ND		0.0065	0.036
Dichlorobromomethane		ND		0.0025	0.036
cis-1,3-Dichloropropene		ND		0.0025	0.036
Toluene		ND		0.0066	0.036
trans-1,3-Dichloropropene		ND		0.0025	0.036
1,1,2-Trichloroethane		ND		0.0032	0.036
Tetrachloroethene		ND		0.0065	0.022
1,3-Dichloropropane		ND		0.0037	0.014
Chlorodibromomethane		ND		0.0022	0.036
Ethylene Dibromide		ND		0.0059	0.036
Chlorobenzene		ND		0.011	0.036
Ethylbenzene		ND		0.0064	0.036
1,1,2,2-Tetrachloroethane		ND		0.0021	0.0071
m-Xylene & p-Xylene		ND		0.013	0.036
o-Xylene		ND		0.0064	0.036
Styrene		ND		0.0028	0.036
Bromoform		ND		0.0025	0.036
Isopropylbenzene		ND		0.0054	0.036
Bromobenzene		ND		0.0032	0.036
N-Propylbenzene		ND		0.0061	0.036
1,2,3-Trichloropropane		ND		0.0063	0.036
2-Chlorotoluene		ND		0.0052	0.036

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-6**

Lab Sample ID: 580-9461-11

Date Sampled: 03/26/2008 1320

Client Matrix: Solid

% Moisture: 18.4

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100992.D
Dilution:	1.0		Initial Weight/Volume: 13.86 g
Date Analyzed:	04/02/2008 1618		Final Weight/Volume: 402.6 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0053	0.036
4-Chlorotoluene		ND		0.0031	0.036
tert-Butylbenzene		ND		0.0030	0.036
1,2,4-Trimethylbenzene		ND		0.0061	0.036
sec-Butylbenzene		ND		0.0014	0.036
1,3-Dichlorobenzene		ND		0.0037	0.036
4-Isopropyltoluene		ND		0.0025	0.036
1,4-Dichlorobenzene		ND		0.0018	0.036
n-Butylbenzene		ND		0.0021	0.036
1,2-Dichlorobenzene		ND		0.0030	0.036
1,2-Dibromo-3-Chloropropane		ND		0.0078	0.036
1,2,4-Trichlorobenzene		ND		0.0035	0.036
1,2,3-Trichlorobenzene		ND		0.0043	0.036
Hexachlorobutadiene		ND		0.0059	0.036
Naphthalene		ND		0.0023	0.036

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	98	75 - 125
Fluorobenzene (Surr)	93	75 - 125
Toluene-d8 (Surr)	103	85 - 115
4-Bromofluorobenzene (Surr)	103	85 - 120
Trifluorotoluene (Surr)	69	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-9**

Lab Sample ID: 580-9461-12

Date Sampled: 03/26/2008 1330

Client Matrix: Solid

% Moisture: 27.6

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100994.D
Dilution:	1.0		Initial Weight/Volume: 12.02 g
Date Analyzed:	04/02/2008 1641		Final Weight/Volume: 403.3 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0065	0.046
Chloromethane		ND		0.0085	0.046
Vinyl chloride		ND		0.0060	0.019
Bromomethane		ND		0.032	0.23
Chloroethane		ND		0.034	0.23
Trichlorofluoromethane		ND		0.0044	0.046
1,1-Dichloroethene		ND		0.0061	0.019
Methylene Chloride		0.012	J B	0.0071	0.046
trans-1,2-Dichloroethene		ND		0.0050	0.046
1,1-Dichloroethane		ND		0.011	0.046
2,2-Dichloropropane		ND		0.0054	0.046
cis-1,2-Dichloroethene		ND		0.0070	0.046
Chlorobromomethane		ND		0.0056	0.046
Chloroform		ND		0.0044	0.046
1,1,1-Trichloroethane		ND		0.0045	0.019
Carbon tetrachloride		ND		0.0035	0.019
1,1-Dichloropropene		ND		0.0036	0.046
1,1,1,2-Tetrachloroethane		ND		0.0044	0.046
Benzene		ND		0.0032	0.0093
1,2-Dichloroethane		ND		0.0094	0.046
Trichloroethene		ND		0.0035	0.019
1,2-Dichloropropane		ND		0.0029	0.0093
Dibromomethane		ND		0.0085	0.046
Dichlorobromomethane		ND		0.0032	0.046
cis-1,3-Dichloropropene		ND		0.0032	0.046
Toluene		ND		0.0086	0.046
trans-1,3-Dichloropropene		ND		0.0032	0.046
1,1,2-Trichloroethane		ND		0.0042	0.046
Tetrachloroethene		ND		0.0085	0.029
1,3-Dichloropropane		ND		0.0049	0.019
Chlorodibromomethane		ND		0.0029	0.046
Ethylene Dibromide		ND		0.0076	0.046
Chlorobenzene		ND		0.014	0.046
Ethylbenzene		ND		0.0083	0.046
1,1,2,2-Tetrachloroethane		ND		0.0028	0.0093
m-Xylene & p-Xylene		ND		0.017	0.046
o-Xylene		ND		0.0083	0.046
Styrene		ND		0.0037	0.046
Bromoform		ND		0.0032	0.046
Isopropylbenzene		ND		0.0071	0.046
Bromobenzene		ND		0.0042	0.046
N-Propylbenzene		ND		0.0080	0.046
1,2,3-Trichloropropane		ND		0.0082	0.046
2-Chlorotoluene		ND		0.0067	0.046

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-9**

Lab Sample ID: 580-9461-12

Date Sampled: 03/26/2008 1330

Client Matrix: Solid

% Moisture: 27.6

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100994.D
Dilution:	1.0		Initial Weight/Volume: 12.02 g
Date Analyzed:	04/02/2008 1641		Final Weight/Volume: 403.3 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0070	0.046
4-Chlorotoluene		ND		0.0041	0.046
tert-Butylbenzene		ND		0.0039	0.046
1,2,4-Trimethylbenzene		ND		0.0080	0.046
sec-Butylbenzene		ND		0.0019	0.046
1,3-Dichlorobenzene		ND		0.0047	0.046
4-Isopropyltoluene		ND		0.0032	0.046
1,4-Dichlorobenzene		ND		0.0023	0.046
n-Butylbenzene		ND		0.0028	0.046
1,2-Dichlorobenzene		ND		0.0039	0.046
1,2-Dibromo-3-Chloropropane		ND		0.010	0.046
1,2,4-Trichlorobenzene		ND		0.0045	0.046
1,2,3-Trichlorobenzene		ND		0.0056	0.046
Hexachlorobutadiene		ND		0.0076	0.046
Naphthalene		ND		0.0030	0.046

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	101	75 - 125
Fluorobenzene (Surr)	93	75 - 125
Toluene-d8 (Surr)	103	85 - 115
4-Bromofluorobenzene (Surr)	107	85 - 120
Trifluorotoluene (Surr)	90	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-7**

Lab Sample ID: 580-9461-14

Date Sampled: 03/26/2008 1440

Client Matrix: Solid

% Moisture: 17.7

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100996.D
Dilution:	1.0		Initial Weight/Volume: 6.76 g
Date Analyzed:	04/02/2008 1705		Final Weight/Volume: 401.2 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.010	0.072
Chloromethane		ND		0.013	0.072
Vinyl chloride		ND		0.0094	0.029
Bromomethane		ND		0.051	0.36
Chloroethane		ND		0.052	0.36
Trichlorofluoromethane		ND		0.0069	0.072
1,1-Dichloroethene		ND		0.0096	0.029
Methylene Chloride		0.015	J B	0.011	0.072
trans-1,2-Dichloroethene		ND		0.0078	0.072
1,1-Dichloroethane		ND		0.017	0.072
2,2-Dichloropropane		ND		0.0085	0.072
cis-1,2-Dichloroethene		ND		0.011	0.072
Chlorobromomethane		ND		0.0087	0.072
Chloroform		ND		0.0069	0.072
1,1,1-Trichloroethane		ND		0.0070	0.029
Carbon tetrachloride		ND		0.0054	0.029
1,1-Dichloropropene		ND		0.0056	0.072
1,1,1,2-Tetrachloroethane		ND		0.0069	0.072
Benzene		ND		0.0051	0.014
1,2-Dichloroethane		ND		0.015	0.072
Trichloroethene		ND		0.0054	0.029
1,2-Dichloropropane		ND		0.0045	0.014
Dibromomethane		ND		0.013	0.072
Dichlorobromomethane		ND		0.0051	0.072
cis-1,3-Dichloropropene		ND		0.0051	0.072
Toluene		ND		0.013	0.072
trans-1,3-Dichloropropene		ND		0.0051	0.072
1,1,2-Trichloroethane		ND		0.0065	0.072
Tetrachloroethene		ND		0.013	0.045
1,3-Dichloropropane		ND		0.0076	0.029
Chlorodibromomethane		ND		0.0045	0.072
Ethylene Dibromide		ND		0.012	0.072
Chlorobenzene		ND		0.022	0.072
Ethylbenzene		ND		0.013	0.072
1,1,2,2-Tetrachloroethane		ND		0.0043	0.014
m-Xylene & p-Xylene		ND		0.027	0.072
o-Xylene		ND		0.013	0.072
Styrene		ND		0.0058	0.072
Bromoform		ND		0.0051	0.072
Isopropylbenzene		ND		0.011	0.072
Bromobenzene		ND		0.0065	0.072
N-Propylbenzene		ND		0.012	0.072
1,2,3-Trichloropropane		ND		0.013	0.072
2-Chlorotoluene		ND		0.010	0.072

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-7**

Lab Sample ID: 580-9461-14

Date Sampled: 03/26/2008 1440

Client Matrix: Solid

% Moisture: 17.7

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100996.D
Dilution:	1.0		Initial Weight/Volume: 6.76 g
Date Analyzed:	04/02/2008 1705		Final Weight/Volume: 401.2 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.011	0.072
4-Chlorotoluene		ND		0.0063	0.072
tert-Butylbenzene		ND		0.0061	0.072
1,2,4-Trimethylbenzene		ND		0.012	0.072
sec-Butylbenzene		ND		0.0029	0.072
1,3-Dichlorobenzene		ND		0.0074	0.072
4-Isopropyltoluene		ND		0.0051	0.072
1,4-Dichlorobenzene		ND		0.0036	0.072
n-Butylbenzene		ND		0.0043	0.072
1,2-Dichlorobenzene		ND		0.0061	0.072
1,2-Dibromo-3-Chloropropane		ND		0.016	0.072
1,2,4-Trichlorobenzene		ND		0.0070	0.072
1,2,3-Trichlorobenzene		ND		0.0087	0.072
Hexachlorobutadiene		ND		0.012	0.072
Naphthalene		ND		0.0047	0.072

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	99	75 - 125
Fluorobenzene (Surr)	92	75 - 125
Toluene-d8 (Surr)	104	85 - 115
4-Bromofluorobenzene (Surr)	103	85 - 120
Trifluorotoluene (Surr)	72	75 - 125



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-9**

Lab Sample ID: 580-9461-15

Date Sampled: 03/26/2008 1445

Client Matrix: Solid

% Moisture: 13.8

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100998.D
Dilution:	1.0		Initial Weight/Volume: 11.63 g
Date Analyzed:	04/02/2008 1728		Final Weight/Volume: 401.6 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0056	0.040
Chloromethane		ND		0.0073	0.040
Vinyl chloride		ND		0.0052	0.016
Bromomethane		ND		0.028	0.20
Chloroethane		ND		0.029	0.20
Trichlorofluoromethane		ND		0.0038	0.040
1,1-Dichloroethene		ND		0.0053	0.016
Methylene Chloride		0.038	J B	0.0061	0.040
trans-1,2-Dichloroethene		ND		0.0043	0.040
1,1-Dichloroethane		ND		0.0095	0.040
2,2-Dichloropropane		ND		0.0047	0.040
cis-1,2-Dichloroethene		ND		0.0060	0.040
Chlorobromomethane		ND		0.0048	0.040
Chloroform		ND		0.0038	0.040
1,1,1-Trichloroethane		ND		0.0039	0.016
Carbon tetrachloride		ND		0.0030	0.016
1,1-Dichloropropene		ND		0.0031	0.040
1,1,1,2-Tetrachloroethane		ND		0.0038	0.040
Benzene		ND		0.0028	0.0080
1,2-Dichloroethane		ND		0.0081	0.040
Trichloroethene		0.013	J	0.0030	0.016
1,2-Dichloropropane		ND		0.0025	0.0080
Dibromomethane		ND		0.0073	0.040
Dichlorobromomethane		ND		0.0028	0.040
cis-1,3-Dichloropropene		ND		0.0028	0.040
Toluene		ND		0.0074	0.040
trans-1,3-Dichloropropene		ND		0.0028	0.040
1,1,2-Trichloroethane		ND		0.0036	0.040
Tetrachloroethene		ND		0.0073	0.025
1,3-Dichloropropane		ND		0.0042	0.016
Chlorodibromomethane		ND		0.0025	0.040
Ethylene Dibromide		ND		0.0066	0.040
Chlorobenzene		ND		0.012	0.040
Ethylbenzene		ND		0.0072	0.040
1,1,2,2-Tetrachloroethane		ND		0.0024	0.0080
m-Xylene & p-Xylene		ND		0.015	0.040
o-Xylene		ND		0.0072	0.040
Styrene		ND		0.0032	0.040
Bromoform		ND		0.0028	0.040
Isopropylbenzene		ND		0.0061	0.040
Bromobenzene		ND		0.0036	0.040
N-Propylbenzene		ND		0.0069	0.040
1,2,3-Trichloropropane		ND		0.0071	0.040
2-Chlorotoluene		ND		0.0058	0.040

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-9**

Lab Sample ID: 580-9461-15

Date Sampled: 03/26/2008 1445

Client Matrix: Solid

% Moisture: 13.8

Date Received: 03/31/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100998.D
Dilution:	1.0		Initial Weight/Volume: 11.63 g
Date Analyzed:	04/02/2008 1728		Final Weight/Volume: 401.6 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0060	0.040
4-Chlorotoluene		ND		0.0035	0.040
tert-Butylbenzene		ND		0.0034	0.040
1,2,4-Trimethylbenzene		ND		0.0069	0.040
sec-Butylbenzene		ND		0.0016	0.040
1,3-Dichlorobenzene		ND		0.0041	0.040
4-Isopropyltoluene		ND		0.0028	0.040
1,4-Dichlorobenzene		ND		0.0020	0.040
n-Butylbenzene		ND		0.0024	0.040
1,2-Dichlorobenzene		ND		0.0034	0.040
1,2-Dibromo-3-Chloropropane		ND		0.0088	0.040
1,2,4-Trichlorobenzene		ND		0.0039	0.040
1,2,3-Trichlorobenzene		ND		0.0048	0.040
Hexachlorobutadiene		ND		0.0066	0.040
Naphthalene		ND		0.0026	0.040

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	101	75 - 125
Fluorobenzene (Surr)	92	75 - 125
Toluene-d8 (Surr)	102	85 - 115
4-Bromofluorobenzene (Surr)	105	85 - 120
Trifluorotoluene (Surr)	87	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-7**

Lab Sample ID: 580-9461-2

Date Sampled: 03/26/2008 0910

Client Matrix: Solid

% Moisture: 21.3

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09232.D
Dilution:	1.0		Initial Weight/Volume: 10.6262 g
Date Analyzed:	04/07/2008 1838		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.12	0.12
Bis(2-chloroethyl)ether		ND		0.12	0.12
2-Chlorophenol		ND		0.12	0.12
1,3-Dichlorobenzene		ND		0.060	0.060
1,4-Dichlorobenzene		ND		0.060	0.060
Benzyl alcohol		ND		0.12	0.12
1,2-Dichlorobenzene		ND		0.060	0.060
2-Methylphenol		ND		0.12	0.12
3 & 4 Methylphenol		ND		0.24	0.24
N-Nitrosodi-n-propylamine		ND		0.12	0.12
Hexachloroethane		ND		0.12	0.12
Nitrobenzene		ND		0.12	0.12
Isophorone		ND		0.12	0.12
2-Nitrophenol		ND		0.12	0.12
2,4-Dimethylphenol		ND		0.12	0.12
Benzoic acid		ND		3.0	3.0
Bis(2-chloroethoxy)methane		ND		0.12	0.12
2,4-Dichlorophenol		ND		0.12	0.12
1,2,4-Trichlorobenzene		ND		0.060	0.060
Naphthalene		ND		0.024	0.024
4-Chloroaniline		ND		0.12	0.12
Hexachlorobutadiene		ND		0.060	0.060
4-Chloro-3-methylphenol		ND		0.12	0.12
2-Methylnaphthalene		ND		0.024	0.024
Hexachlorocyclopentadiene		ND		0.12	0.12
2,4,6-Trichlorophenol		ND		0.18	0.18
2,4,5-Trichlorophenol		ND		0.12	0.12
2-Chloronaphthalene		ND		0.024	0.024
2-Nitroaniline		ND		0.12	0.12
Dimethyl phthalate		ND		0.12	0.12
Acenaphthylene		ND		0.024	0.024
2,6-Dinitrotoluene		ND		0.12	0.12
3-Nitroaniline		ND		0.12	0.12
Acenaphthene		ND		0.024	0.024
2,4-Dinitrophenol		ND		1.2	1.2
4-Nitrophenol		ND		1.2	1.2
Dibenzofuran		ND		0.12	0.12
2,4-Dinitrotoluene		ND		0.12	0.12
Diethyl phthalate		ND		0.12	0.12
4-Chlorophenyl phenyl ether		ND		0.12	0.12
Fluorene		ND		0.024	0.024
4-Nitroaniline		ND		0.12	0.12
4,6-Dinitro-2-methylphenol		ND		1.2	1.2
N-Nitrosodiphenylamine		ND		0.060	0.060

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-7**

Lab Sample ID: 580-9461-2

Date Sampled: 03/26/2008 0910

Client Matrix: Solid

% Moisture: 21.3

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09232.D
Dilution:	1.0		Initial Weight/Volume: 10.6262 g
Date Analyzed:	04/07/2008 1838		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.12	0.12
Hexachlorobenzene		ND		0.060	0.060
Pentachlorophenol		ND		0.12	0.12
Phenanthrene		0.046		0.024	0.024
Anthracene		ND		0.024	0.024
Di-n-butyl phthalate		ND		0.24	0.24
Fluoranthene		ND		0.024	0.024
Pyrene		ND		0.024	0.024
Butyl benzyl phthalate		ND		0.12	0.12
3,3'-Dichlorobenzidine		ND		0.24	0.24
Benzo[a]anthracene		ND		0.030	0.030
Chrysene		ND		0.030	0.030
Bis(2-ethylhexyl) phthalate		ND		1.8	1.8
Di-n-octyl phthalate		ND		0.24	0.24
Benzofluoranthene		ND		0.048	0.048
Benzo[a]pyrene		ND		0.036	0.036
Indeno[1,2,3-cd]pyrene		ND		0.048	0.048
Dibenz(a,h)anthracene		ND		0.048	0.048
Benzo[g,h,i]perylene		ND		0.030	0.030
Carbazole		ND		0.18	0.18
1-Methylnaphthalene		ND		0.036	0.036
Benzo[b]fluoranthene		ND		0.024	0.024
Benzo[k]fluoranthene		ND		0.030	0.030
2,2'-oxybis[1-chloropropane]		ND		0.18	0.18

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	82	42 - 140
2,4,6-Tribromophenol	64	28 - 143
Terphenyl-d14	96	42 - 151
2-Fluorophenol	90	36 - 145
Nitrobenzene-d5	74	38 - 141
Phenol-d5	90	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-10**

Lab Sample ID: 580-9461-3

Date Sampled: 03/26/2008 0915

Client Matrix: Solid

% Moisture: 19.1

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09233.D
Dilution:	1.0		Initial Weight/Volume: 10.5634 g
Date Analyzed:	04/07/2008 1858		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.12	0.12
Bis(2-chloroethyl)ether		ND		0.12	0.12
2-Chlorophenol		ND		0.12	0.12
1,3-Dichlorobenzene		ND		0.058	0.058
1,4-Dichlorobenzene		ND		0.058	0.058
Benzyl alcohol		ND		0.12	0.12
1,2-Dichlorobenzene		ND		0.058	0.058
2-Methylphenol		ND		0.12	0.12
3 & 4 Methylphenol		ND		0.23	0.23
N-Nitrosodi-n-propylamine		ND		0.12	0.12
Hexachloroethane		ND		0.12	0.12
Nitrobenzene		ND		0.12	0.12
Isophorone		ND		0.12	0.12
2-Nitrophenol		ND		0.12	0.12
2,4-Dimethylphenol		ND		0.12	0.12
Benzoic acid		ND		2.9	2.9
Bis(2-chloroethoxy)methane		ND		0.12	0.12
2,4-Dichlorophenol		ND		0.12	0.12
1,2,4-Trichlorobenzene		ND		0.058	0.058
Naphthalene		ND		0.023	0.023
4-Chloroaniline		ND		0.12	0.12
Hexachlorobutadiene		ND		0.058	0.058
4-Chloro-3-methylphenol		ND		0.12	0.12
2-Methylnaphthalene		ND		0.023	0.023
Hexachlorocyclopentadiene		ND		0.12	0.12
2,4,6-Trichlorophenol		ND		0.18	0.18
2,4,5-Trichlorophenol		ND		0.12	0.12
2-Chloronaphthalene		ND		0.023	0.023
2-Nitroaniline		ND		0.12	0.12
Dimethyl phthalate		ND		0.12	0.12
Acenaphthylene		ND		0.023	0.023
2,6-Dinitrotoluene		ND		0.12	0.12
3-Nitroaniline		ND		0.12	0.12
Acenaphthene		ND		0.023	0.023
2,4-Dinitrophenol		ND		1.2	1.2
4-Nitrophenol		ND		1.2	1.2
Dibenzofuran		ND		0.12	0.12
2,4-Dinitrotoluene		ND		0.12	0.12
Diethyl phthalate		ND		0.12	0.12
4-Chlorophenyl phenyl ether		ND		0.12	0.12
Fluorene		ND		0.023	0.023
4-Nitroaniline		ND		0.12	0.12
4,6-Dinitro-2-methylphenol		ND		1.2	1.2
N-Nitrosodiphenylamine		ND		0.058	0.058

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-10**

Lab Sample ID: 580-9461-3

Date Sampled: 03/26/2008 0915

Client Matrix: Solid

% Moisture: 19.1

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09233.D
Dilution:	1.0		Initial Weight/Volume: 10.5634 g
Date Analyzed:	04/07/2008 1858		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.12	0.12
Hexachlorobenzene		ND		0.058	0.058
Pentachlorophenol		ND		0.12	0.12
Phenanthrene		ND		0.023	0.023
Anthracene		ND		0.023	0.023
Di-n-butyl phthalate		ND		0.23	0.23
Fluoranthene		ND		0.023	0.023
Pyrene		ND		0.023	0.023
Butyl benzyl phthalate		ND		0.12	0.12
3,3'-Dichlorobenzidine		ND		0.23	0.23
Benzo[a]anthracene		ND		0.029	0.029
Chrysene		ND		0.029	0.029
Bis(2-ethylhexyl) phthalate		ND		1.8	1.8
Di-n-octyl phthalate		ND		0.23	0.23
Benzofluoranthene		ND		0.047	0.047
Benzo[a]pyrene		ND		0.035	0.035
Indeno[1,2,3-cd]pyrene		ND		0.047	0.047
Dibenz(a,h)anthracene		ND		0.047	0.047
Benzo[g,h,i]perylene		ND		0.029	0.029
Carbazole		ND		0.18	0.18
1-Methylnaphthalene		ND		0.035	0.035
Benzo[b]fluoranthene		ND		0.023	0.023
Benzo[k]fluoranthene		ND		0.029	0.029
2,2'-oxybis[1-chloropropane]		ND		0.18	0.18

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	65	42 - 140
2,4,6-Tribromophenol	66	28 - 143
Terphenyl-d14	93	42 - 151
2-Fluorophenol	99	36 - 145
Nitrobenzene-d5	75	38 - 141
Phenol-d5	102	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-7**

Lab Sample ID: 580-9461-5

Date Sampled: 03/26/2008 1200

Client Matrix: Solid

% Moisture: 75.1

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09234.D
Dilution:	1.0		Initial Weight/Volume: 10.7961 g
Date Analyzed:	04/07/2008 1917		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.37	0.37
Bis(2-chloroethyl)ether		ND		0.37	0.37
2-Chlorophenol		ND		0.37	0.37
1,3-Dichlorobenzene		ND		0.19	0.19
1,4-Dichlorobenzene		ND		0.19	0.19
Benzyl alcohol		ND		0.37	0.37
1,2-Dichlorobenzene		ND		0.19	0.19
2-Methylphenol		ND		0.37	0.37
3 & 4 Methylphenol		ND		0.74	0.74
N-Nitrosodi-n-propylamine		ND		0.37	0.37
Hexachloroethane		ND		0.37	0.37
Nitrobenzene		ND		0.37	0.37
Isophorone		ND		0.37	0.37
2-Nitrophenol		ND		0.37	0.37
2,4-Dimethylphenol		ND		0.37	0.37
Benzoic acid		ND		9.3	9.3
Bis(2-chloroethoxy)methane		ND		0.37	0.37
2,4-Dichlorophenol		ND		0.37	0.37
1,2,4-Trichlorobenzene		ND		0.19	0.19
Naphthalene		ND		0.074	0.074
4-Chloroaniline		ND		0.37	0.37
Hexachlorobutadiene		ND		0.19	0.19
4-Chloro-3-methylphenol		ND		0.37	0.37
2-Methylnaphthalene		ND		0.074	0.074
Hexachlorocyclopentadiene		ND		0.37	0.37
2,4,6-Trichlorophenol		ND		0.56	0.56
2,4,5-Trichlorophenol		ND		0.37	0.37
2-Chloronaphthalene		ND		0.074	0.074
2-Nitroaniline		ND		0.37	0.37
Dimethyl phthalate		ND		0.37	0.37
Acenaphthylene		ND		0.074	0.074
2,6-Dinitrotoluene		ND		0.37	0.37
3-Nitroaniline		ND		0.37	0.37
Acenaphthene		ND		0.074	0.074
2,4-Dinitrophenol		ND		3.7	3.7
4-Nitrophenol		ND		3.7	3.7
Dibenzofuran		ND		0.37	0.37
2,4-Dinitrotoluene		ND		0.37	0.37
Diethyl phthalate		ND		0.37	0.37
4-Chlorophenyl phenyl ether		ND		0.37	0.37
Fluorene		ND		0.074	0.074
4-Nitroaniline		ND		0.37	0.37
4,6-Dinitro-2-methylphenol		ND		3.7	3.7
N-Nitrosodiphenylamine		ND		0.19	0.19

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-7**

Lab Sample ID: 580-9461-5

Date Sampled: 03/26/2008 1200

Client Matrix: Solid

% Moisture: 75.1

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09234.D
Dilution:	1.0		Initial Weight/Volume: 10.7961 g
Date Analyzed:	04/07/2008 1917		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.37	0.37
Hexachlorobenzene		ND		0.19	0.19
Pentachlorophenol		ND		0.37	0.37
Phenanthrene		ND		0.074	0.074
Anthracene		ND		0.074	0.074
Di-n-butyl phthalate		ND		0.74	0.74
Fluoranthene		ND		0.074	0.074
Pyrene		ND		0.074	0.074
Butyl benzyl phthalate		ND		0.37	0.37
3,3'-Dichlorobenzidine		ND		0.74	0.74
Benzo[a]anthracene		ND		0.093	0.093
Chrysene		ND		0.093	0.093
Bis(2-ethylhexyl) phthalate		ND		5.6	5.6
Di-n-octyl phthalate		ND		0.74	0.74
Benzofluoranthene		ND		0.15	0.15
Benzo[a]pyrene		ND		0.11	0.11
Indeno[1,2,3-cd]pyrene		ND		0.15	0.15
Dibenz(a,h)anthracene		ND		0.15	0.15
Benzo[g,h,i]perylene		ND		0.093	0.093
Carbazole		ND		0.56	0.56
1-Methylnaphthalene		ND		0.11	0.11
Benzo[b]fluoranthene		ND		0.074	0.074
Benzo[k]fluoranthene		ND		0.093	0.093
2,2'-oxybis[1-chloropropane]		ND		0.56	0.56

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	38	X	42 - 140
2,4,6-Tribromophenol	49		28 - 143
Terphenyl-d14	104		42 - 151
2-Fluorophenol	91		36 - 145
Nitrobenzene-d5	65		38 - 141
Phenol-d5	88		38 - 149



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-10**

Lab Sample ID: 580-9461-6

Date Sampled: 03/26/2008 1210

Client Matrix: Solid

% Moisture: 38.7

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09235.D
Dilution:	1.0		Initial Weight/Volume: 10.5008 g
Date Analyzed:	04/07/2008 1937		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.16	0.16
Bis(2-chloroethyl)ether		ND		0.16	0.16
2-Chlorophenol		ND		0.16	0.16
1,3-Dichlorobenzene		ND		0.078	0.078
1,4-Dichlorobenzene		ND		0.078	0.078
Benzyl alcohol		ND		0.16	0.16
1,2-Dichlorobenzene		ND		0.078	0.078
2-Methylphenol		ND		0.16	0.16
3 & 4 Methylphenol		ND		0.31	0.31
N-Nitrosodi-n-propylamine		ND		0.16	0.16
Hexachloroethane		ND		0.16	0.16
Nitrobenzene		ND		0.16	0.16
Isophorone		ND		0.16	0.16
2-Nitrophenol		ND		0.16	0.16
2,4-Dimethylphenol		ND		0.16	0.16
Benzoic acid		ND		3.9	3.9
Bis(2-chloroethoxy)methane		ND		0.16	0.16
2,4-Dichlorophenol		ND		0.16	0.16
1,2,4-Trichlorobenzene		ND		0.078	0.078
Naphthalene		ND		0.031	0.031
4-Chloroaniline		ND		0.16	0.16
Hexachlorobutadiene		ND		0.078	0.078
4-Chloro-3-methylphenol		ND		0.16	0.16
2-Methylnaphthalene		ND		0.031	0.031
Hexachlorocyclopentadiene		ND		0.16	0.16
2,4,6-Trichlorophenol		ND		0.23	0.23
2,4,5-Trichlorophenol		ND		0.16	0.16
2-Chloronaphthalene		ND		0.031	0.031
2-Nitroaniline		ND		0.16	0.16
Dimethyl phthalate		ND		0.16	0.16
Acenaphthylene		ND		0.031	0.031
2,6-Dinitrotoluene		ND		0.16	0.16
3-Nitroaniline		ND		0.16	0.16
Acenaphthene		ND		0.031	0.031
2,4-Dinitrophenol		ND		1.6	1.6
4-Nitrophenol		ND		1.6	1.6
Dibenzofuran		ND		0.16	0.16
2,4-Dinitrotoluene		ND		0.16	0.16
Diethyl phthalate		ND		0.16	0.16
4-Chlorophenyl phenyl ether		ND		0.16	0.16
Fluorene		ND		0.031	0.031
4-Nitroaniline		ND		0.16	0.16
4,6-Dinitro-2-methylphenol		ND		1.6	1.6
N-Nitrosodiphenylamine		ND		0.078	0.078

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-10**

Lab Sample ID: 580-9461-6

Date Sampled: 03/26/2008 1210

Client Matrix: Solid

% Moisture: 38.7

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09235.D
Dilution:	1.0		Initial Weight/Volume: 10.5008 g
Date Analyzed:	04/07/2008 1937		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.16	0.16
Hexachlorobenzene		ND		0.078	0.078
Pentachlorophenol		ND		0.16	0.16
Phenanthrene		ND		0.031	0.031
Anthracene		ND		0.031	0.031
Di-n-butyl phthalate		ND		0.31	0.31
Fluoranthene		ND		0.031	0.031
Pyrene		ND		0.031	0.031
Butyl benzyl phthalate		ND		0.16	0.16
3,3'-Dichlorobenzidine		ND		0.31	0.31
Benzo[a]anthracene		ND		0.039	0.039
Chrysene		ND		0.039	0.039
Bis(2-ethylhexyl) phthalate		ND		2.3	2.3
Di-n-octyl phthalate		ND		0.31	0.31
Benzofluoranthene		ND		0.062	0.062
Benzo[a]pyrene		ND		0.047	0.047
Indeno[1,2,3-cd]pyrene		ND		0.062	0.062
Dibenz(a,h)anthracene		ND		0.062	0.062
Benzo[g,h,i]perylene		ND		0.039	0.039
Carbazole		ND		0.23	0.23
1-Methylnaphthalene		ND		0.047	0.047
Benzo[b]fluoranthene		ND		0.031	0.031
Benzo[k]fluoranthene		ND		0.039	0.039
2,2'-oxybis[1-chloropropane]		ND		0.23	0.23

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	56	42 - 140
2,4,6-Tribromophenol	66	28 - 143
Terphenyl-d14	102	42 - 151
2-Fluorophenol	96	36 - 145
Nitrobenzene-d5	72	38 - 141
Phenol-d5	101	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-7**

Lab Sample ID: 580-9461-8

Date Sampled: 03/26/2008 1025

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09236.D
Dilution:	1.0		Initial Weight/Volume: 10.3993 g
Date Analyzed:	04/07/2008 1956		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.12	0.12
Bis(2-chloroethyl)ether		ND		0.12	0.12
2-Chlorophenol		ND		0.12	0.12
1,3-Dichlorobenzene		ND		0.062	0.062
1,4-Dichlorobenzene		ND		0.062	0.062
Benzyl alcohol		ND		0.12	0.12
1,2-Dichlorobenzene		ND		0.062	0.062
2-Methylphenol		ND		0.12	0.12
3 & 4 Methylphenol		ND		0.25	0.25
N-Nitrosodi-n-propylamine		ND		0.12	0.12
Hexachloroethane		ND		0.12	0.12
Nitrobenzene		ND		0.12	0.12
Isophorone		ND		0.12	0.12
2-Nitrophenol		ND		0.12	0.12
2,4-Dimethylphenol		ND		0.12	0.12
Benzoic acid		ND		3.1	3.1
Bis(2-chloroethoxy)methane		ND		0.12	0.12
2,4-Dichlorophenol		ND		0.12	0.12
1,2,4-Trichlorobenzene		ND		0.062	0.062
Naphthalene		ND		0.025	0.025
4-Chloroaniline		ND		0.12	0.12
Hexachlorobutadiene		ND		0.062	0.062
4-Chloro-3-methylphenol		ND		0.12	0.12
2-Methylnaphthalene		ND		0.025	0.025
Hexachlorocyclopentadiene		ND		0.12	0.12
2,4,6-Trichlorophenol		ND		0.19	0.19
2,4,5-Trichlorophenol		ND		0.12	0.12
2-Chloronaphthalene		ND		0.025	0.025
2-Nitroaniline		ND		0.12	0.12
Dimethyl phthalate		ND		0.12	0.12
Acenaphthylene		ND		0.025	0.025
2,6-Dinitrotoluene		ND		0.12	0.12
3-Nitroaniline		ND		0.12	0.12
Acenaphthene		ND		0.025	0.025
2,4-Dinitrophenol		ND		1.2	1.2
4-Nitrophenol		ND		1.2	1.2
Dibenzofuran		ND		0.12	0.12
2,4-Dinitrotoluene		ND		0.12	0.12
Diethyl phthalate		ND		0.12	0.12
4-Chlorophenyl phenyl ether		ND		0.12	0.12
Fluorene		ND		0.025	0.025
4-Nitroaniline		ND		0.12	0.12
4,6-Dinitro-2-methylphenol		ND		1.2	1.2
N-Nitrosodiphenylamine		ND		0.062	0.062

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-7**

Lab Sample ID: 580-9461-8

Date Sampled: 03/26/2008 1025

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09236.D
Dilution:	1.0		Initial Weight/Volume: 10.3993 g
Date Analyzed:	04/07/2008 1956		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.12	0.12
Hexachlorobenzene		ND		0.062	0.062
Pentachlorophenol		ND		0.12	0.12
Phenanthrene		ND		0.025	0.025
Anthracene		ND		0.025	0.025
Di-n-butyl phthalate		ND		0.25	0.25
Fluoranthene		ND		0.025	0.025
Pyrene		ND		0.025	0.025
Butyl benzyl phthalate		ND		0.12	0.12
3,3'-Dichlorobenzidine		ND		0.25	0.25
Benzo[a]anthracene		ND		0.031	0.031
Chrysene		ND		0.031	0.031
Bis(2-ethylhexyl) phthalate		ND		1.9	1.9
Di-n-octyl phthalate		ND		0.25	0.25
Benzofluoranthene		ND		0.050	0.050
Benzo[a]pyrene		ND		0.037	0.037
Indeno[1,2,3-cd]pyrene		ND		0.050	0.050
Dibenz(a,h)anthracene		ND		0.050	0.050
Benzo[g,h,i]perylene		ND		0.031	0.031
Carbazole		ND		0.19	0.19
1-Methylnaphthalene		ND		0.037	0.037
Benzo[b]fluoranthene		ND		0.025	0.025
Benzo[k]fluoranthene		ND		0.031	0.031
2,2'-oxybis[1-chloropropane]		ND		0.19	0.19

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	67	42 - 140
2,4,6-Tribromophenol	74	28 - 143
Terphenyl-d14	102	42 - 151
2-Fluorophenol	106	36 - 145
Nitrobenzene-d5	77	38 - 141
Phenol-d5	99	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-10**

Lab Sample ID: 580-9461-9

Date Sampled: 03/26/2008 1030

Client Matrix: Solid

% Moisture: 17.0

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09237.D
Dilution:	1.0		Initial Weight/Volume: 10.3037 g
Date Analyzed:	04/07/2008 2016		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.12	0.12
Bis(2-chloroethyl)ether		ND		0.12	0.12
2-Chlorophenol		ND		0.12	0.12
1,3-Dichlorobenzene		ND		0.058	0.058
1,4-Dichlorobenzene		ND		0.058	0.058
Benzyl alcohol		ND		0.12	0.12
1,2-Dichlorobenzene		ND		0.058	0.058
2-Methylphenol		ND		0.12	0.12
3 & 4 Methylphenol		ND		0.23	0.23
N-Nitrosodi-n-propylamine		ND		0.12	0.12
Hexachloroethane		ND		0.12	0.12
Nitrobenzene		ND		0.12	0.12
Isophorone		ND		0.12	0.12
2-Nitrophenol		ND		0.12	0.12
2,4-Dimethylphenol		ND		0.12	0.12
Benzoic acid		ND		2.9	2.9
Bis(2-chloroethoxy)methane		ND		0.12	0.12
2,4-Dichlorophenol		ND		0.12	0.12
1,2,4-Trichlorobenzene		ND		0.058	0.058
Naphthalene		ND		0.023	0.023
4-Chloroaniline		ND		0.12	0.12
Hexachlorobutadiene		ND		0.058	0.058
4-Chloro-3-methylphenol		ND		0.12	0.12
2-Methylnaphthalene		ND		0.023	0.023
Hexachlorocyclopentadiene		ND		0.12	0.12
2,4,6-Trichlorophenol		ND		0.18	0.18
2,4,5-Trichlorophenol		ND		0.12	0.12
2-Chloronaphthalene		ND		0.023	0.023
2-Nitroaniline		ND		0.12	0.12
Dimethyl phthalate		ND		0.12	0.12
Acenaphthylene		ND		0.023	0.023
2,6-Dinitrotoluene		ND		0.12	0.12
3-Nitroaniline		ND		0.12	0.12
Acenaphthene		ND		0.023	0.023
2,4-Dinitrophenol		ND		1.2	1.2
4-Nitrophenol		ND		1.2	1.2
Dibenzofuran		ND		0.12	0.12
2,4-Dinitrotoluene		ND		0.12	0.12
Diethyl phthalate		ND		0.12	0.12
4-Chlorophenyl phenyl ether		ND		0.12	0.12
Fluorene		ND		0.023	0.023
4-Nitroaniline		ND		0.12	0.12
4,6-Dinitro-2-methylphenol		ND		1.2	1.2
N-Nitrosodiphenylamine		ND		0.058	0.058

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-10**

Lab Sample ID: 580-9461-9

Date Sampled: 03/26/2008 1030

Client Matrix: Solid

% Moisture: 17.0

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09237.D
Dilution:	1.0		Initial Weight/Volume: 10.3037 g
Date Analyzed:	04/07/2008 2016		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.12	0.12
Hexachlorobenzene		ND		0.058	0.058
Pentachlorophenol		ND		0.12	0.12
Phenanthrene		ND		0.023	0.023
Anthracene		ND		0.023	0.023
Di-n-butyl phthalate		ND		0.23	0.23
Fluoranthene		ND		0.023	0.023
Pyrene		ND		0.023	0.023
Butyl benzyl phthalate		ND		0.12	0.12
3,3'-Dichlorobenzidine		ND		0.23	0.23
Benzo[a]anthracene		ND		0.029	0.029
Chrysene		ND		0.029	0.029
Bis(2-ethylhexyl) phthalate		ND		1.8	1.8
Di-n-octyl phthalate		ND		0.23	0.23
Benzofluoranthene		ND		0.047	0.047
Benzo[a]pyrene		ND		0.035	0.035
Indeno[1,2,3-cd]pyrene		ND		0.047	0.047
Dibenz(a,h)anthracene		ND		0.047	0.047
Benzo[g,h,i]perylene		ND		0.029	0.029
Carbazole		ND		0.18	0.18
1-Methylnaphthalene		ND		0.035	0.035
Benzo[b]fluoranthene		ND		0.023	0.023
Benzo[k]fluoranthene		ND		0.029	0.029
2,2'-oxybis[1-chloropropane]		ND		0.18	0.18

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	73	42 - 140
2,4,6-Tribromophenol	70	28 - 143
Terphenyl-d14	99	42 - 151
2-Fluorophenol	100	36 - 145
Nitrobenzene-d5	78	38 - 141
Phenol-d5	96	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-6**

Lab Sample ID: 580-9461-11

Date Sampled: 03/26/2008 1320

Client Matrix: Solid

% Moisture: 18.4

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09238.D
Dilution:	1.0		Initial Weight/Volume: 10.5191 g
Date Analyzed:	04/07/2008 2035		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.12	0.12
Bis(2-chloroethyl)ether		ND		0.12	0.12
2-Chlorophenol		ND		0.12	0.12
1,3-Dichlorobenzene		ND		0.058	0.058
1,4-Dichlorobenzene		ND		0.058	0.058
Benzyl alcohol		ND		0.12	0.12
1,2-Dichlorobenzene		ND		0.058	0.058
2-Methylphenol		ND		0.12	0.12
3 & 4 Methylphenol		ND		0.23	0.23
N-Nitrosodi-n-propylamine		ND		0.12	0.12
Hexachloroethane		ND		0.12	0.12
Nitrobenzene		ND		0.12	0.12
Isophorone		ND		0.12	0.12
2-Nitrophenol		ND		0.12	0.12
2,4-Dimethylphenol		ND		0.12	0.12
Benzoic acid		ND		2.9	2.9
Bis(2-chloroethoxy)methane		ND		0.12	0.12
2,4-Dichlorophenol		ND		0.12	0.12
1,2,4-Trichlorobenzene		ND		0.058	0.058
Naphthalene		ND		0.023	0.023
4-Chloroaniline		ND		0.12	0.12
Hexachlorobutadiene		ND		0.058	0.058
4-Chloro-3-methylphenol		ND		0.12	0.12
2-Methylnaphthalene		ND		0.023	0.023
Hexachlorocyclopentadiene		ND		0.12	0.12
2,4,6-Trichlorophenol		ND		0.17	0.17
2,4,5-Trichlorophenol		ND		0.12	0.12
2-Chloronaphthalene		ND		0.023	0.023
2-Nitroaniline		ND		0.12	0.12
Dimethyl phthalate		ND		0.12	0.12
Acenaphthylene		ND		0.023	0.023
2,6-Dinitrotoluene		ND		0.12	0.12
3-Nitroaniline		ND		0.12	0.12
Acenaphthene		ND		0.023	0.023
2,4-Dinitrophenol		ND		1.2	1.2
4-Nitrophenol		ND		1.2	1.2
Dibenzofuran		ND		0.12	0.12
2,4-Dinitrotoluene		ND		0.12	0.12
Diethyl phthalate		ND		0.12	0.12
4-Chlorophenyl phenyl ether		ND		0.12	0.12
Fluorene		ND		0.023	0.023
4-Nitroaniline		ND		0.12	0.12
4,6-Dinitro-2-methylphenol		ND		1.2	1.2
N-Nitrosodiphenylamine		ND		0.058	0.058

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-6**

Lab Sample ID: 580-9461-11

Date Sampled: 03/26/2008 1320

Client Matrix: Solid

% Moisture: 18.4

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09238.D
Dilution:	1.0		Initial Weight/Volume: 10.5191 g
Date Analyzed:	04/07/2008 2035		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.12	0.12
Hexachlorobenzene		ND		0.058	0.058
Pentachlorophenol		ND		0.12	0.12
Phenanthrene		ND		0.023	0.023
Anthracene		ND		0.023	0.023
Di-n-butyl phthalate		ND		0.23	0.23
Fluoranthene		0.033		0.023	0.023
Pyrene		0.033		0.023	0.023
Butyl benzyl phthalate		ND		0.12	0.12
3,3'-Dichlorobenzidine		ND		0.23	0.23
Benzo[a]anthracene		ND		0.029	0.029
Chrysene		0.030		0.029	0.029
Bis(2-ethylhexyl) phthalate		ND		1.7	1.7
Di-n-octyl phthalate		ND		0.23	0.23
Benzofluoranthene		0.056		0.047	0.047
Benzo[a]pyrene		ND		0.035	0.035
Indeno[1,2,3-cd]pyrene		ND		0.047	0.047
Dibenz(a,h)anthracene		ND		0.047	0.047
Benzo[g,h,i]perylene		ND		0.029	0.029
Carbazole		ND		0.17	0.17
1-Methylnaphthalene		ND		0.035	0.035
Benzo[b]fluoranthene		0.038		0.023	0.023
Benzo[k]fluoranthene		ND		0.029	0.029
2,2'-oxybis[1-chloropropane]		ND		0.17	0.17

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	66	42 - 140
2,4,6-Tribromophenol	70	28 - 143
Terphenyl-d14	105	42 - 151
2-Fluorophenol	93	36 - 145
Nitrobenzene-d5	72	38 - 141
Phenol-d5	94	38 - 149



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-9**

Lab Sample ID: 580-9461-12

Date Sampled: 03/26/2008 1330

Client Matrix: Solid

% Moisture: 27.6

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09239.D
Dilution:	1.0		Initial Weight/Volume: 10.6886 g
Date Analyzed:	04/07/2008 2055		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.13	0.13
Bis(2-chloroethyl)ether		ND		0.13	0.13
2-Chlorophenol		ND		0.13	0.13
1,3-Dichlorobenzene		ND		0.065	0.065
1,4-Dichlorobenzene		ND		0.065	0.065
Benzyl alcohol		ND		0.13	0.13
1,2-Dichlorobenzene		ND		0.065	0.065
2-Methylphenol		ND		0.13	0.13
3 & 4 Methylphenol		ND		0.26	0.26
N-Nitrosodi-n-propylamine		ND		0.13	0.13
Hexachloroethane		ND		0.13	0.13
Nitrobenzene		ND		0.13	0.13
Isophorone		ND		0.13	0.13
2-Nitrophenol		ND		0.13	0.13
2,4-Dimethylphenol		ND		0.13	0.13
Benzoic acid		ND		3.2	3.2
Bis(2-chloroethoxy)methane		ND		0.13	0.13
2,4-Dichlorophenol		ND		0.13	0.13
1,2,4-Trichlorobenzene		ND		0.065	0.065
Naphthalene		ND		0.026	0.026
4-Chloroaniline		ND		0.13	0.13
Hexachlorobutadiene		ND		0.065	0.065
4-Chloro-3-methylphenol		ND		0.13	0.13
2-Methylnaphthalene		ND		0.026	0.026
Hexachlorocyclopentadiene		ND		0.13	0.13
2,4,6-Trichlorophenol		ND		0.19	0.19
2,4,5-Trichlorophenol		ND		0.13	0.13
2-Chloronaphthalene		ND		0.026	0.026
2-Nitroaniline		ND		0.13	0.13
Dimethyl phthalate		ND		0.13	0.13
Acenaphthylene		ND		0.026	0.026
2,6-Dinitrotoluene		ND		0.13	0.13
3-Nitroaniline		ND		0.13	0.13
Acenaphthene		ND		0.026	0.026
2,4-Dinitrophenol		ND		1.3	1.3
4-Nitrophenol		ND		1.3	1.3
Dibenzofuran		ND		0.13	0.13
2,4-Dinitrotoluene		ND		0.13	0.13
Diethyl phthalate		ND		0.13	0.13
4-Chlorophenyl phenyl ether		ND		0.13	0.13
Fluorene		ND		0.026	0.026
4-Nitroaniline		ND		0.13	0.13
4,6-Dinitro-2-methylphenol		ND		1.3	1.3
N-Nitrosodiphenylamine		ND		0.065	0.065

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-9**

Lab Sample ID: 580-9461-12

Date Sampled: 03/26/2008 1330

Client Matrix: Solid

% Moisture: 27.6

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09239.D
Dilution:	1.0		Initial Weight/Volume: 10.6886 g
Date Analyzed:	04/07/2008 2055		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.13	0.13
Hexachlorobenzene		ND		0.065	0.065
Pentachlorophenol		ND		0.13	0.13
Phenanthrene		ND		0.026	0.026
Anthracene		ND		0.026	0.026
Di-n-butyl phthalate		ND		0.26	0.26
Fluoranthene		ND		0.026	0.026
Pyrene		ND		0.026	0.026
Butyl benzyl phthalate		ND		0.13	0.13
3,3'-Dichlorobenzidine		ND		0.26	0.26
Benzo[a]anthracene		ND		0.032	0.032
Chrysene		ND		0.032	0.032
Bis(2-ethylhexyl) phthalate		ND		1.9	1.9
Di-n-octyl phthalate		ND		0.26	0.26
Benzofluoranthene		ND		0.052	0.052
Benzo[a]pyrene		ND		0.039	0.039
Indeno[1,2,3-cd]pyrene		ND		0.052	0.052
Dibenz(a,h)anthracene		ND		0.052	0.052
Benzo[g,h,i]perylene		ND		0.032	0.032
Carbazole		ND		0.19	0.19
1-Methylnaphthalene		ND		0.039	0.039
Benzo[b]fluoranthene		ND		0.026	0.026
Benzo[k]fluoranthene		ND		0.032	0.032
2,2'-oxybis[1-chloropropane]		ND		0.19	0.19

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	66	42 - 140
2,4,6-Tribromophenol	54	28 - 143
Terphenyl-d14	87	42 - 151
2-Fluorophenol	94	36 - 145
Nitrobenzene-d5	67	38 - 141
Phenol-d5	96	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-7**

Lab Sample ID: 580-9461-14

Date Sampled: 03/26/2008 1440

Client Matrix: Solid

% Moisture: 17.7

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09240.D
Dilution:	1.0		Initial Weight/Volume: 10.6320 g
Date Analyzed:	04/07/2008 2114		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.11	0.11
Bis(2-chloroethyl)ether		ND		0.11	0.11
2-Chlorophenol		ND		0.11	0.11
1,3-Dichlorobenzene		ND		0.057	0.057
1,4-Dichlorobenzene		ND		0.057	0.057
Benzyl alcohol		ND		0.11	0.11
1,2-Dichlorobenzene		ND		0.057	0.057
2-Methylphenol		ND		0.11	0.11
3 & 4 Methylphenol		ND		0.23	0.23
N-Nitrosodi-n-propylamine		ND		0.11	0.11
Hexachloroethane		ND		0.11	0.11
Nitrobenzene		ND		0.11	0.11
Isophorone		ND		0.11	0.11
2-Nitrophenol		ND		0.11	0.11
2,4-Dimethylphenol		ND		0.11	0.11
Benzoic acid		ND		2.9	2.9
Bis(2-chloroethoxy)methane		ND		0.11	0.11
2,4-Dichlorophenol		ND		0.11	0.11
1,2,4-Trichlorobenzene		ND		0.057	0.057
Naphthalene		ND		0.023	0.023
4-Chloroaniline		ND		0.11	0.11
Hexachlorobutadiene		ND		0.057	0.057
4-Chloro-3-methylphenol		ND		0.11	0.11
2-Methylnaphthalene		ND		0.023	0.023
Hexachlorocyclopentadiene		ND		0.11	0.11
2,4,6-Trichlorophenol		ND		0.17	0.17
2,4,5-Trichlorophenol		ND		0.11	0.11
2-Chloronaphthalene		ND		0.023	0.023
2-Nitroaniline		ND		0.11	0.11
Dimethyl phthalate		ND		0.11	0.11
Acenaphthylene		ND		0.023	0.023
2,6-Dinitrotoluene		ND		0.11	0.11
3-Nitroaniline		ND		0.11	0.11
Acenaphthene		ND		0.023	0.023
2,4-Dinitrophenol		ND		1.1	1.1
4-Nitrophenol		ND		1.1	1.1
Dibenzofuran		ND		0.11	0.11
2,4-Dinitrotoluene		ND		0.11	0.11
Diethyl phthalate		ND		0.11	0.11
4-Chlorophenyl phenyl ether		ND		0.11	0.11
Fluorene		ND		0.023	0.023
4-Nitroaniline		ND		0.11	0.11
4,6-Dinitro-2-methylphenol		ND		1.1	1.1
N-Nitrosodiphenylamine		ND		0.057	0.057

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-7**

Lab Sample ID: 580-9461-14

Date Sampled: 03/26/2008 1440

Client Matrix: Solid

% Moisture: 17.7

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09240.D
Dilution:	1.0		Initial Weight/Volume: 10.6320 g
Date Analyzed:	04/07/2008 2114		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.11	0.11
Hexachlorobenzene		ND		0.057	0.057
Pentachlorophenol		ND		0.11	0.11
Phenanthrene		ND		0.023	0.023
Anthracene		ND		0.023	0.023
Di-n-butyl phthalate		ND		0.23	0.23
Fluoranthene		0.027		0.023	0.023
Pyrene		0.030		0.023	0.023
Butyl benzyl phthalate		ND		0.11	0.11
3,3'-Dichlorobenzidine		ND		0.23	0.23
Benzo[a]anthracene		ND		0.029	0.029
Chrysene		ND		0.029	0.029
Bis(2-ethylhexyl) phthalate		ND		1.7	1.7
Di-n-octyl phthalate		ND		0.23	0.23
Benzofluoranthene		ND		0.046	0.046
Benzo[a]pyrene		ND		0.034	0.034
Indeno[1,2,3-cd]pyrene		ND		0.046	0.046
Dibenz(a,h)anthracene		ND		0.046	0.046
Benzo[g,h,i]perylene		ND		0.029	0.029
Carbazole		ND		0.17	0.17
1-Methylnaphthalene		ND		0.034	0.034
Benzo[b]fluoranthene		ND		0.023	0.023
Benzo[k]fluoranthene		ND		0.029	0.029
2,2'-oxybis[1-chloropropane]		ND		0.17	0.17

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	38	42 - 140
2,4,6-Tribromophenol	60	28 - 143
Terphenyl-d14	100	42 - 151
2-Fluorophenol	90	36 - 145
Nitrobenzene-d5	64	38 - 141
Phenol-d5	91	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-9**

Lab Sample ID: 580-9461-15

Date Sampled: 03/26/2008 1445

Client Matrix: Solid

% Moisture: 13.8

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09241.D
Dilution:	1.0		Initial Weight/Volume: 10.9564 g
Date Analyzed:	04/07/2008 2133		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.11	0.11
Bis(2-chloroethyl)ether		ND		0.11	0.11
2-Chlorophenol		ND		0.11	0.11
1,3-Dichlorobenzene		ND		0.053	0.053
1,4-Dichlorobenzene		ND		0.053	0.053
Benzyl alcohol		ND		0.11	0.11
1,2-Dichlorobenzene		ND		0.053	0.053
2-Methylphenol		ND		0.11	0.11
3 & 4 Methylphenol		ND		0.21	0.21
N-Nitrosodi-n-propylamine		ND		0.11	0.11
Hexachloroethane		ND		0.11	0.11
Nitrobenzene		ND		0.11	0.11
Isophorone		ND		0.11	0.11
2-Nitrophenol		ND		0.11	0.11
2,4-Dimethylphenol		ND		0.11	0.11
Benzoic acid		ND		2.6	2.6
Bis(2-chloroethoxy)methane		ND		0.11	0.11
2,4-Dichlorophenol		ND		0.11	0.11
1,2,4-Trichlorobenzene		ND		0.053	0.053
Naphthalene		ND		0.021	0.021
4-Chloroaniline		ND		0.11	0.11
Hexachlorobutadiene		ND		0.053	0.053
4-Chloro-3-methylphenol		ND		0.11	0.11
2-Methylnaphthalene		ND		0.021	0.021
Hexachlorocyclopentadiene		ND		0.11	0.11
2,4,6-Trichlorophenol		ND		0.16	0.16
2,4,5-Trichlorophenol		ND		0.11	0.11
2-Chloronaphthalene		ND		0.021	0.021
2-Nitroaniline		ND		0.11	0.11
Dimethyl phthalate		ND		0.11	0.11
Acenaphthylene		ND		0.021	0.021
2,6-Dinitrotoluene		ND		0.11	0.11
3-Nitroaniline		ND		0.11	0.11
Acenaphthene		ND		0.021	0.021
2,4-Dinitrophenol		ND		1.1	1.1
4-Nitrophenol		ND		1.1	1.1
Dibenzofuran		ND		0.11	0.11
2,4-Dinitrotoluene		ND		0.11	0.11
Diethyl phthalate		ND		0.11	0.11
4-Chlorophenyl phenyl ether		ND		0.11	0.11
Fluorene		ND		0.021	0.021
4-Nitroaniline		ND		0.11	0.11
4,6-Dinitro-2-methylphenol		ND		1.1	1.1
N-Nitrosodiphenylamine		ND		0.053	0.053

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-9**

Lab Sample ID: 580-9461-15

Date Sampled: 03/26/2008 1445

Client Matrix: Solid

% Moisture: 13.8

Date Received: 03/31/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09241.D
Dilution:	1.0		Initial Weight/Volume: 10.9564 g
Date Analyzed:	04/07/2008 2133		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.11	0.11
Hexachlorobenzene		ND		0.053	0.053
Pentachlorophenol		ND		0.11	0.11
Phenanthrene		ND		0.021	0.021
Anthracene		ND		0.021	0.021
Di-n-butyl phthalate		ND		0.21	0.21
Fluoranthene		ND		0.021	0.021
Pyrene		ND		0.021	0.021
Butyl benzyl phthalate		ND		0.11	0.11
3,3'-Dichlorobenzidine		ND		0.21	0.21
Benzo[a]anthracene		ND		0.026	0.026
Chrysene		ND		0.026	0.026
Bis(2-ethylhexyl) phthalate		ND		1.6	1.6
Di-n-octyl phthalate		ND		0.21	0.21
Benzofluoranthene		ND		0.042	0.042
Benzo[a]pyrene		ND		0.032	0.032
Indeno[1,2,3-cd]pyrene		ND		0.042	0.042
Dibenz(a,h)anthracene		ND		0.042	0.042
Benzo[g,h,i]perylene		ND		0.026	0.026
Carbazole		ND		0.16	0.16
1-Methylnaphthalene		ND		0.032	0.032
Benzo[b]fluoranthene		ND		0.021	0.021
Benzo[k]fluoranthene		ND		0.026	0.026
2,2'-oxybis[1-chloropropane]		ND		0.16	0.16

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	66	42 - 140
2,4,6-Tribromophenol	70	28 - 143
Terphenyl-d14	90	42 - 151
2-Fluorophenol	103	36 - 145
Nitrobenzene-d5	78	38 - 141
Phenol-d5	103	38 - 149

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

Client Sample ID: B1-032608-7

Lab Sample ID: 580-9461-2

Date Sampled: 03/26/2008 0910

Client Matrix: Solid

% Moisture: 21.3

Date Received: 03/31/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012988.D

Dilution: 1.0

Initial Weight/Volume: 12.26 g

Date Analyzed: 04/02/2008 2048

Final Weight/Volume: 402.6 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.2	4.2
Surrogate		%Rec			Acceptance Limits
4-Bromofluorobenzene (Surr)		107			50 - 150
Trifluorotoluene (Surr)		84			50 - 150
Ethylbenzene-d10		108			50 - 150
Fluorobenzene (Surr)		105			50 - 150
Toluene-d8 (Surr)		111			50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-10**

Lab Sample ID: 580-9461-3

Date Sampled: 03/26/2008 0915

Client Matrix: Solid

% Moisture: 19.1

Date Received: 03/31/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012989.D

Dilution: 1.0

Initial Weight/Volume: 9.49 g

Date Analyzed: 04/02/2008 2110

Final Weight/Volume: 401.8 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

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Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		5.2	5.2

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Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	80	50 - 150
Ethylbenzene-d10	109	50 - 150
Fluorobenzene (Surr)	105	50 - 150
Toluene-d8 (Surr)	111	50 - 150



# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-7**

Lab Sample ID: 580-9461-5

Date Sampled: 03/26/2008 1200

Client Matrix: Solid

% Moisture: 75.1

Date Received: 03/31/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012992.D

Dilution: 1.0

Initial Weight/Volume: 10.49 g

Date Analyzed: 04/02/2008 2215

Final Weight/Volume: 714.7 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		27	27

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	123	50 - 150
Ethylbenzene-d10	108	50 - 150
Fluorobenzene (Surr)	104	50 - 150
Toluene-d8 (Surr)	111	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-10**

Lab Sample ID: 580-9461-6

Date Sampled: 03/26/2008 1210

Client Matrix: Solid

% Moisture: 38.7

Date Received: 03/31/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012993.D

Dilution: 1.0

Initial Weight/Volume: 13.64 g

Date Analyzed: 04/02/2008 2236

Final Weight/Volume: 405.3 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.8	4.8
Surrogate		%Rec			Acceptance Limits
4-Bromofluorobenzene (Surr)		107			50 - 150
Trifluorotoluene (Surr)		86			50 - 150
Ethylbenzene-d10		108			50 - 150
Fluorobenzene (Surr)		105			50 - 150
Toluene-d8 (Surr)		111			50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-7**

Lab Sample ID: 580-9461-8

Date Sampled: 03/26/2008 1025

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/31/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012994.D

Dilution: 1.0

Initial Weight/Volume: 12.26 g

Date Analyzed: 04/02/2008 2258

Final Weight/Volume: 402.8 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.3	4.3
Surrogate		%Rec			Acceptance Limits
4-Bromofluorobenzene (Surr)		107			50 - 150
Trifluorotoluene (Surr)		89			50 - 150
Ethylbenzene-d10		108			50 - 150
Fluorobenzene (Surr)		104			50 - 150
Toluene-d8 (Surr)		111			50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-10**

Lab Sample ID: 580-9461-9

Date Sampled: 03/26/2008 1030

Client Matrix: Solid

% Moisture: 17.0

Date Received: 03/31/2008 1410

---

## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012995.D

Dilution: 1.0

Initial Weight/Volume: 10.33 g

Date Analyzed: 04/02/2008 2319

Final Weight/Volume: 401.8 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.7	4.7

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	90	50 - 150
Ethylbenzene-d10	108	50 - 150
Fluorobenzene (Surr)	104	50 - 150
Toluene-d8 (Surr)	111	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-6**

Lab Sample ID: 580-9461-11

Date Sampled: 03/26/2008 1320

Client Matrix: Solid

% Moisture: 18.4

Date Received: 03/31/2008 1410

---

## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012996.D

Dilution: 1.0

Initial Weight/Volume: 13.86 g

Date Analyzed: 04/02/2008 2341

Final Weight/Volume: 402.6 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		3.6	3.6

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	66	50 - 150
Ethylbenzene-d10	108	50 - 150
Fluorobenzene (Surr)	104	50 - 150
Toluene-d8 (Surr)	110	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-9**

Lab Sample ID: 580-9461-12

Date Sampled: 03/26/2008 1330

Client Matrix: Solid

% Moisture: 27.6

Date Received: 03/31/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012997.D

Dilution: 1.0

Initial Weight/Volume: 12.02 g

Date Analyzed: 04/03/2008 0002

Final Weight/Volume: 403.3 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.6	4.6

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	106	50 - 150
Trifluorotoluene (Surr)	88	50 - 150
Ethylbenzene-d10	108	50 - 150
Fluorobenzene (Surr)	104	50 - 150
Toluene-d8 (Surr)	111	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-7**

Lab Sample ID: 580-9461-14

Date Sampled: 03/26/2008 1440

Client Matrix: Solid

% Moisture: 17.7

Date Received: 03/31/2008 1410

---

## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012998.D

Dilution: 1.0

Initial Weight/Volume: 6.76 g

Date Analyzed: 04/03/2008 0024

Final Weight/Volume: 401.2 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		7.2	7.2
Surrogate		%Rec			Acceptance Limits
4-Bromofluorobenzene (Surr)		106			50 - 150
Trifluorotoluene (Surr)		64			50 - 150
Ethylbenzene-d10		108			50 - 150
Fluorobenzene (Surr)		104			50 - 150
Toluene-d8 (Surr)		110			50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-9**

Lab Sample ID: 580-9461-15

Date Sampled: 03/26/2008 1445

Client Matrix: Solid

% Moisture: 13.8

Date Received: 03/31/2008 1410

---

## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012999.D

Dilution: 1.0

Initial Weight/Volume: 11.63 g

Date Analyzed: 04/03/2008 0046

Final Weight/Volume: 401.6 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.0	4.0
Surrogate		%Rec			Acceptance Limits
4-Bromofluorobenzene (Surr)		106			50 - 150
Trifluorotoluene (Surr)		86			50 - 150
Ethylbenzene-d10		108			50 - 150
Fluorobenzene (Surr)		104			50 - 150
Toluene-d8 (Surr)		111			50 - 150



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-7**

Lab Sample ID: 580-9461-2

Date Sampled: 03/26/2008 0910

Client Matrix: Solid

% Moisture: 21.3

Date Received: 03/31/2008 1410

### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30005

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15055.D

Dilution: 5.0

Initial Weight/Volume: 10.6049 g

Date Analyzed: 04/04/2008 0116

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.12	0.12
PCB-1221		ND		0.12	0.12
PCB-1232		ND		0.12	0.12
PCB-1242		ND		0.12	0.12
PCB-1248		ND		0.12	0.12
PCB-1254		ND		0.12	0.12
PCB-1260		ND	*	0.12	0.12

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	154	X	50 - 150
Tetrachloro-m-xylene	146		45 - 155

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-10**

Lab Sample ID: 580-9461-3

Date Sampled: 03/26/2008 0915

Client Matrix: Solid

% Moisture: 19.1

Date Received: 03/31/2008 1410

### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30005

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15056.D

Dilution: 5.0

Initial Weight/Volume: 10.0082 g

Date Analyzed: 04/04/2008 0140

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.12	0.12
PCB-1221		ND		0.12	0.12
PCB-1232		ND		0.12	0.12
PCB-1242		ND		0.12	0.12
PCB-1248		ND		0.12	0.12
PCB-1254		ND		0.12	0.12
PCB-1260		ND	*	0.12	0.12

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	161	X	50 - 150
Tetrachloro-m-xylene	143		45 - 155

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

Client Sample ID: B2-032608-7

Lab Sample ID: 580-9461-5

Date Sampled: 03/26/2008 1200

Client Matrix: Solid

% Moisture: 75.1

Date Received: 03/31/2008 1410

## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30005

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15057.D

Dilution: 5.0

Initial Weight/Volume: 10.0517 g

Date Analyzed: 04/04/2008 0203

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.40	0.40
PCB-1221		ND		0.40	0.40
PCB-1232		ND		0.40	0.40
PCB-1242		ND		0.40	0.40
PCB-1248		ND		0.40	0.40
PCB-1254		ND		0.40	0.40
PCB-1260		ND	*	0.40	0.40

Surrogate	%Rec		Acceptance Limits
DCB Decachlorobiphenyl	172	X	50 - 150
Tetrachloro-m-xylene	162	X	45 - 155

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-10**

Lab Sample ID: 580-9461-6

Date Sampled: 03/26/2008 1210

Client Matrix: Solid

% Moisture: 38.7

Date Received: 03/31/2008 1410

### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30005

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15058.D

Dilution: 5.0

Initial Weight/Volume: 10.1446 g

Date Analyzed: 04/04/2008 0227

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.16	0.16
PCB-1221		ND		0.16	0.16
PCB-1232		ND		0.16	0.16
PCB-1242		ND		0.16	0.16
PCB-1248		ND		0.16	0.16
PCB-1254		ND		0.16	0.16
PCB-1260		ND	*	0.16	0.16

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	180	X	50 - 150
Tetrachloro-m-xylene	163	X	45 - 155

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-7**

Lab Sample ID: 580-9461-8

Date Sampled: 03/26/2008 1025

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/31/2008 1410

### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30005

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15059.D

Dilution: 5.0

Initial Weight/Volume: 10.9003 g

Date Analyzed: 04/04/2008 0251

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.12	0.12
PCB-1221		ND		0.12	0.12
PCB-1232		ND		0.12	0.12
PCB-1242		ND		0.12	0.12
PCB-1248		ND		0.12	0.12
PCB-1254		ND		0.12	0.12
PCB-1260		ND	*	0.12	0.12
Surrogate		%Rec		Acceptance Limits	
DCB Decachlorobiphenyl		186	X	50 - 150	
Tetrachloro-m-xylene		157	X	45 - 155	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-10**

Lab Sample ID: 580-9461-9

Date Sampled: 03/26/2008 1030

Client Matrix: Solid

% Moisture: 17.0

Date Received: 03/31/2008 1410

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## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30005	Instrument ID:	SEA034
Preparation:	3550B	Prep Batch: 580-29867	Lab File ID:	PCB15060.D
Dilution:	5.0		Initial Weight/Volume:	10.4605 g
Date Analyzed:	04/04/2008 0314		Final Weight/Volume:	20 mL
Date Prepared:	04/02/2008 0927		Injection Volume:	
			Column ID:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.12	0.12
PCB-1221		ND		0.12	0.12
PCB-1232		ND		0.12	0.12
PCB-1242		ND		0.12	0.12
PCB-1248		ND		0.12	0.12
PCB-1254		ND		0.12	0.12
PCB-1260		ND	*	0.12	0.12

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	139	50 - 150
Tetrachloro-m-xylene	118	45 - 155

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

Client Sample ID: MW4-032608-6

Lab Sample ID: 580-9461-11

Date Sampled: 03/26/2008 1320

Client Matrix: Solid

% Moisture: 18.4

Date Received: 03/31/2008 1410

## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082 Analysis Batch: 580-30005 Instrument ID: SEA034  
Preparation: 3550B Prep Batch: 580-29867 Lab File ID: PCB15061.D  
Dilution: 5.0 Initial Weight/Volume: 10.2962 g  
Date Analyzed: 04/04/2008 0338 Final Weight/Volume: 20 mL  
Date Prepared: 04/02/2008 0927 Injection Volume:  
Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.12	0.12
PCB-1221		ND		0.12	0.12
PCB-1232		ND		0.12	0.12
PCB-1242		ND		0.12	0.12
PCB-1248		ND		0.12	0.12
PCB-1254		ND		0.12	0.12
PCB-1260		ND	*	0.12	0.12

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	149	50 - 150
Tetrachloro-m-xylene	131	45 - 155

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-9**

Lab Sample ID: 580-9461-12

Date Sampled: 03/26/2008 1330

Client Matrix: Solid

% Moisture: 27.6

Date Received: 03/31/2008 1410

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## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30005	Instrument ID:	SEA034
Preparation:	3550B	Prep Batch: 580-29867	Lab File ID:	PCB15062.D
Dilution:	5.0		Initial Weight/Volume:	10.3172 g
Date Analyzed:	04/04/2008 0402		Final Weight/Volume:	20 mL
Date Prepared:	04/02/2008 0927		Injection Volume:	
			Column ID:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.13	0.13
PCB-1221		ND		0.13	0.13
PCB-1232		ND		0.13	0.13
PCB-1242		ND		0.13	0.13
PCB-1248		ND		0.13	0.13
PCB-1254		ND		0.13	0.13
PCB-1260		ND	*	0.13	0.13

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	139	50 - 150
Tetrachloro-m-xylene	135	45 - 155



# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

Client Sample ID: MW5-032608-7

Lab Sample ID: 580-9461-14

Date Sampled: 03/26/2008 1440

Client Matrix: Solid

% Moisture: 17.7

Date Received: 03/31/2008 1410

## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082 Analysis Batch: 580-30005 Instrument ID: SEA034  
Preparation: 3550B Prep Batch: 580-29867 Lab File ID: PCB15064.D  
Dilution: 5.0 Initial Weight/Volume: 10.5294 g  
Date Analyzed: 04/04/2008 0449 Final Weight/Volume: 20 mL  
Date Prepared: 04/02/2008 0927 Injection Volume:  
Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.12	0.12
PCB-1221		ND		0.12	0.12
PCB-1232		ND		0.12	0.12
PCB-1242		ND		0.12	0.12
PCB-1248		ND		0.12	0.12
PCB-1254		ND		0.12	0.12
PCB-1260		ND	*	0.12	0.12

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	144	50 - 150
Tetrachloro-m-xylene	129	45 - 155

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-9**

Lab Sample ID: 580-9461-15

Date Sampled: 03/26/2008 1445

Client Matrix: Solid

% Moisture: 13.8

Date Received: 03/31/2008 1410

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## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30005	Instrument ID: SEA034
Preparation:	3550B	Prep Batch: 580-29867	Lab File ID: PCB15065.D
Dilution:	5.0		Initial Weight/Volume: 10.7824 g
Date Analyzed:	04/04/2008 0513		Final Weight/Volume: 20 mL
Date Prepared:	04/02/2008 0927		Injection Volume:
			Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.11	0.11
PCB-1221		ND		0.11	0.11
PCB-1232		ND		0.11	0.11
PCB-1242		ND		0.11	0.11
PCB-1248		ND		0.11	0.11
PCB-1254		ND		0.11	0.11
PCB-1260		ND	*	0.11	0.11

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	130	50 - 150
Tetrachloro-m-xylene	118	45 - 155

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-7**

Lab Sample ID: 580-9461-2

Date Sampled: 03/26/2008 0910

Client Matrix: Solid

% Moisture: 21.3

Date Received: 03/31/2008 1410

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-30147	Instrument ID: SEA016
Preparation:	3550B	Prep Batch: 580-30081	Lab File ID: EP23794.D
Dilution:	1.0		Initial Weight/Volume: 10.2105 g
Date Analyzed:	04/09/2008 1841		Final Weight/Volume: 10 mL
Date Prepared:	04/08/2008 1452		Injection Volume:
			Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		1100		62	62

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	98	50 - 150

Method:	NWTPH-Dx	Analysis Batch: 580-30202	Instrument ID: SEA013
Preparation:	3550B	Prep Batch: 580-30081	Lab File ID: FA34415.D
Dilution:	1.0		Initial Weight/Volume: 10.2105 g
Date Analyzed:	04/10/2008 1513		Final Weight/Volume: 10 mL
Date Prepared:	04/08/2008 1452		Injection Volume:
			Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
#2 Diesel (C10-C24)		84		31	31

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-10**

Lab Sample ID: 580-9461-3

Date Sampled: 03/26/2008 0915

Client Matrix: Solid

% Moisture: 19.1

Date Received: 03/31/2008 1410

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30081

Lab File ID: EP23795.D

Dilution: 1.0

Initial Weight/Volume: 10.8933 g

Date Analyzed: 04/09/2008 1907

Final Weight/Volume: 10 mL

Date Prepared: 04/08/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		57	57
#2 Diesel (C10-C24)		ND		28	28
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		83			50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-7**

Lab Sample ID: 580-9461-5

Date Sampled: 03/26/2008 1200

Client Matrix: Solid

% Moisture: 75.1

Date Received: 03/31/2008 1410

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30081

Lab File ID: EP23796.D

Dilution: 1.0

Initial Weight/Volume: 10.5615 g

Date Analyzed: 04/09/2008 1928

Final Weight/Volume: 10 mL

Date Prepared: 04/08/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		190	190
#2 Diesel (C10-C24)		ND		95	95
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		57		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-10**

Lab Sample ID: 580-9461-6

Date Sampled: 03/26/2008 1210

Client Matrix: Solid

% Moisture: 38.7

Date Received: 03/31/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30081

Lab File ID: EP23797.D

Dilution: 1.0

Initial Weight/Volume: 10.6886 g

Date Analyzed: 04/09/2008 1948

Final Weight/Volume: 10 mL

Date Prepared: 04/08/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		76	76
#2 Diesel (C10-C24)		ND		38	38
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		79			50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-7**

Lab Sample ID: 580-9461-8

Date Sampled: 03/26/2008 1025

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/31/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30007

Lab File ID: EP23784.D

Dilution: 1.0

Initial Weight/Volume: 10.3370 g

Date Analyzed: 04/09/2008 1503

Final Weight/Volume: 10 mL

Date Prepared: 04/07/2008 0936

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		63	63
#2 Diesel (C10-C24)		ND		31	31
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		110		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-10**

Lab Sample ID: 580-9461-9

Date Sampled: 03/26/2008 1030

Client Matrix: Solid

% Moisture: 17.0

Date Received: 03/31/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30081

Lab File ID: EP23798.D

Dilution: 1.0

Initial Weight/Volume: 10.6753 g

Date Analyzed: 04/09/2008 2009

Final Weight/Volume: 10 mL

Date Prepared: 04/08/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		56	56
#2 Diesel (C10-C24)		ND		28	28
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		99			50 - 150



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-6**

Lab Sample ID: 580-9461-11

Date Sampled: 03/26/2008 1320

Client Matrix: Solid

% Moisture: 18.4

Date Received: 03/31/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-29984

Lab File ID: EP23780.D

Dilution: 1.0

Initial Weight/Volume: 10.1434 g

Date Analyzed: 04/09/2008 1328

Final Weight/Volume: 10 mL

Date Prepared: 04/04/2008 1505

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		60	60
#2 Diesel (C10-C24)		ND		30	30
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		115			50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

Client Sample ID: MW4-032608-9

Lab Sample ID: 580-9461-12

Date Sampled: 03/26/2008 1330

Client Matrix: Solid

% Moisture: 27.6

Date Received: 03/31/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30081

Lab File ID: EP23799.D

Dilution: 1.0

Initial Weight/Volume: 10.4231 g

Date Analyzed: 04/09/2008 2029

Final Weight/Volume: 10 mL

Date Prepared: 04/08/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		66	66
#2 Diesel (C10-C24)		ND		33	33
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		74		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

Client Sample ID: MW5-032608-7

Lab Sample ID: 580-9461-14

Date Sampled: 03/26/2008 1440

Client Matrix: Solid

% Moisture: 17.7

Date Received: 03/31/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30081

Lab File ID: EP23800.D

Dilution: 1.0

Initial Weight/Volume: 10.2777 g

Date Analyzed: 04/09/2008 2050

Final Weight/Volume: 10 mL

Date Prepared: 04/08/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		62		59	59
#2 Diesel (C10-C24)		ND		30	30
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		75			50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-9**

Lab Sample ID: 580-9461-15

Date Sampled: 03/26/2008 1445

Client Matrix: Solid

% Moisture: 13.8

Date Received: 03/31/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30081

Lab File ID: EP23802.D

Dilution: 1.0

Initial Weight/Volume: 10.8346 g

Date Analyzed: 04/09/2008 2130

Final Weight/Volume: 10 mL

Date Prepared: 04/08/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		54	54
#2 Diesel (C10-C24)		ND		27	27
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		99		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-7**

Lab Sample ID: 580-9461-2

Date Sampled: 03/26/2008 0910

Client Matrix: Solid

% Moisture: 21.3

Date Received: 03/31/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0049 g

Date Analyzed: 04/01/2008 2000

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		ND		3.8	3.8
Barium		50		0.63	0.63
Cadmium		ND		0.63	0.63
Chromium		18		1.6	1.6
Lead		38		1.9	1.9
Selenium		ND		6.3	6.3
Silver		2.1		1.3	1.3

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5009 g

Date Analyzed: 04/02/2008 1050

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		0.39		0.025	0.025

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B1-032608-10**

Lab Sample ID: 580-9461-3

Date Sampled: 03/26/2008 0915

Client Matrix: Solid

% Moisture: 19.1

Date Received: 03/31/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0192 g

Date Analyzed: 04/01/2008 2012

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		4.9		3.6	3.6
Barium		33		0.61	0.61
Cadmium		ND		0.61	0.61
Chromium		19		1.6	1.6
Lead		2.5		1.8	1.8
Selenium		ND		6.1	6.1
Silver		ND		1.2	1.2

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5121 g

Date Analyzed: 04/02/2008 1053

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		0.024		0.024	0.024

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-7**

Lab Sample ID: 580-9461-5

Date Sampled: 03/26/2008 1200

Client Matrix: Solid

% Moisture: 75.1

Date Received: 03/31/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0547 g

Date Analyzed: 04/01/2008 2016

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		ND		11	11
Barium		70		1.9	1.9
Cadmium		ND		1.9	1.9
Chromium		14		4.9	4.9
Lead		18		5.7	5.7
Selenium		ND		19	19
Silver		ND		3.8	3.8

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5092 g

Date Analyzed: 04/02/2008 1057

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		0.095		0.079	0.079

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B2-032608-10**

Lab Sample ID: 580-9461-6

Date Sampled: 03/26/2008 1210

Client Matrix: Solid

% Moisture: 38.7

Date Received: 03/31/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0765 g

Date Analyzed: 04/01/2008 2020

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		7.2		4.5	4.5
Barium		40		0.76	0.76
Cadmium		ND		0.76	0.76
Chromium		24		2.0	2.0
Lead		29		2.3	2.3
Selenium		ND		7.6	7.6
Silver		ND		1.5	1.5

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5266 g

Date Analyzed: 04/02/2008 1100

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.031	0.031

---



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-7**

Lab Sample ID: 580-9461-8

Date Sampled: 03/26/2008 1025

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/31/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0455 g

Date Analyzed: 04/01/2008 2024

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		ND		3.7	3.7
Barium		8.0		0.62	0.62
Cadmium		ND		0.62	0.62
Chromium		11		1.6	1.6
Lead		ND		1.9	1.9
Selenium		ND		6.2	6.2
Silver		ND		1.2	1.2

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5138 g

Date Analyzed: 04/02/2008 1103

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.025	0.025

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: B3-032608-10**

Lab Sample ID: 580-9461-9

Date Sampled: 03/26/2008 1030

Client Matrix: Solid

% Moisture: 17.0

Date Received: 03/31/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0573 g

Date Analyzed: 04/01/2008 2026

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		ND		3.4	3.4
Barium		6.3		0.57	0.57
Cadmium		ND		0.57	0.57
Chromium		11		1.5	1.5
Lead		ND		1.7	1.7
Selenium		ND		5.7	5.7
Silver		ND		1.1	1.1

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5644 g

Date Analyzed: 04/02/2008 1114

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.021	0.021

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-6**

Lab Sample ID: 580-9461-11

Date Sampled: 03/26/2008 1320

Client Matrix: Solid

% Moisture: 18.4

Date Received: 03/31/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0648 g

Date Analyzed: 04/01/2008 2029

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		7.8		3.5	3.5
Barium		44		0.58	0.58
Cadmium		ND		0.58	0.58
Chromium		27		1.5	1.5
Lead		230		1.7	1.7
Selenium		ND		5.8	5.8
Silver		ND		1.2	1.2

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5143 g

Date Analyzed: 04/02/2008 1117

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		0.075		0.024	0.024

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW4-032608-9**

Lab Sample ID: 580-9461-12

Date Sampled: 03/26/2008 1330

Client Matrix: Solid

% Moisture: 27.6

Date Received: 03/31/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0233 g

Date Analyzed: 04/01/2008 2033

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		7.1		4.0	4.0
Barium		38		0.67	0.67
Cadmium		ND		0.67	0.67
Chromium		26		1.8	1.8
Lead		4.4		2.0	2.0
Selenium		ND		6.7	6.7
Silver		ND		1.3	1.3

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5053 g

Date Analyzed: 04/02/2008 1121

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		0.049		0.027	0.027

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-7**

Lab Sample ID: 580-9461-14

Date Sampled: 03/26/2008 1440

Client Matrix: Solid

% Moisture: 17.7

Date Received: 03/31/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0775 g

Date Analyzed: 04/01/2008 2037

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		7.9		3.4	3.4
Barium		25		0.56	0.56
Cadmium		ND		0.56	0.56
Chromium		12		1.5	1.5
Lead		55		1.7	1.7
Selenium		ND		5.6	5.6
Silver		ND		1.1	1.1

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5117 g

Date Analyzed: 04/02/2008 1124

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		0.090		0.024	0.024

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Client Sample ID: MW5-032608-9**

Lab Sample ID: 580-9461-15

Date Sampled: 03/26/2008 1445

Client Matrix: Solid

% Moisture: 13.8

Date Received: 03/31/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0508 g

Date Analyzed: 04/01/2008 2041

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		ND		3.3	3.3
Barium		4.9		0.55	0.55
Cadmium		ND		0.55	0.55
Chromium		8.7		1.4	1.4
Lead		ND		1.7	1.7
Selenium		ND		5.5	5.5
Silver		ND		1.1	1.1

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5480 g

Date Analyzed: 04/02/2008 1127

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.021	0.021

---

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Method Blank - Batch: 580-29857**

**Method: 8260B  
Preparation: 5035**

Lab Sample ID: MB 580-29857/1-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/02/2008 0933  
 Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29905  
 Prep Batch: 580-29857  
 Units: mg/Kg

Instrument ID: SEA043  
 Lab File ID: VB00100960.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 400 mL

Analyte	Result	Qual	MDL	RL
Dichlorodifluoromethane	ND		0.0056	0.040
Chloromethane	ND		0.0073	0.040
Vinyl chloride	ND		0.0052	0.016
Bromomethane	ND		0.028	0.20
Chloroethane	ND		0.029	0.20
Trichlorofluoromethane	ND		0.0038	0.040
1,1-Dichloroethene	ND		0.0053	0.016
Methylene Chloride	0.0096	J	0.0061	0.040
trans-1,2-Dichloroethene	ND		0.0043	0.040
1,1-Dichloroethane	ND		0.0095	0.040
2,2-Dichloropropane	ND		0.0047	0.040
cis-1,2-Dichloroethene	ND		0.0060	0.040
Chlorobromomethane	ND		0.0048	0.040
Chloroform	ND		0.0038	0.040
1,1,1-Trichloroethane	ND		0.0039	0.016
Carbon tetrachloride	ND		0.0030	0.016
1,1-Dichloropropene	ND		0.0031	0.040
1,1,1,2-Tetrachloroethane	ND		0.0038	0.040
Benzene	ND		0.0028	0.0080
1,2-Dichloroethane	ND		0.0081	0.040
Trichloroethene	ND		0.0030	0.016
1,2-Dichloropropane	ND		0.0025	0.0080
Dibromomethane	ND		0.0073	0.040
Dichlorobromomethane	ND		0.0028	0.040
cis-1,3-Dichloropropene	ND		0.0028	0.040
Toluene	ND		0.0074	0.040
trans-1,3-Dichloropropene	ND		0.0028	0.040
1,1,2-Trichloroethane	ND		0.0036	0.040
Tetrachloroethene	ND		0.0073	0.025
1,3-Dichloropropane	ND		0.0042	0.016
Chlorodibromomethane	ND		0.0025	0.040
Ethylene Dibromide	ND		0.0066	0.040
Chlorobenzene	ND		0.012	0.040
Ethylbenzene	ND		0.0072	0.040
1,1,2,2-Tetrachloroethane	ND		0.0024	0.0080
m-Xylene & p-Xylene	ND		0.015	0.040
o-Xylene	ND		0.0072	0.040
Styrene	ND		0.0032	0.040
Bromoform	ND		0.0028	0.040
Isopropylbenzene	ND		0.0061	0.040
Bromobenzene	ND		0.0036	0.040

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Method Blank - Batch: 580-29857**

**Method: 8260B  
Preparation: 5035**

Lab Sample ID: MB 580-29857/1-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/02/2008 0933  
 Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29905  
 Prep Batch: 580-29857  
 Units: mg/Kg

Instrument ID: SEA043  
 Lab File ID: VB00100960.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 400 mL

Analyte	Result	Qual	MDL	RL
N-Propylbenzene	ND		0.0069	0.040
1,2,3-Trichloropropane	ND		0.0071	0.040
2-Chlorotoluene	ND		0.0058	0.040
1,3,5-Trimethylbenzene	ND		0.0060	0.040
4-Chlorotoluene	ND		0.0035	0.040
tert-Butylbenzene	ND		0.0034	0.040
1,2,4-Trimethylbenzene	ND		0.0069	0.040
sec-Butylbenzene	ND		0.0016	0.040
1,3-Dichlorobenzene	ND		0.0041	0.040
4-Isopropyltoluene	ND		0.0028	0.040
1,4-Dichlorobenzene	ND		0.0020	0.040
n-Butylbenzene	ND		0.0024	0.040
1,2-Dichlorobenzene	ND		0.0034	0.040
1,2-Dibromo-3-Chloropropane	ND		0.0088	0.040
1,2,4-Trichlorobenzene	ND		0.0039	0.040
1,2,3-Trichlorobenzene	ND		0.0048	0.040
Hexachlorobutadiene	ND		0.0066	0.040
Naphthalene	ND		0.0026	0.040
Surrogate	% Rec		Acceptance Limits	
Ethylbenzene-d10	104		75 - 125	
Fluorobenzene (Surr)	94		75 - 125	
Toluene-d8 (Surr)	102		85 - 115	
4-Bromofluorobenzene (Surr)	103		85 - 120	
Trifluorotoluene (Surr)	113		75 - 125	

Calculations are performed before rounding to avoid round-off errors in calculated results.



# Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

## Lab Control Spike - Batch: 580-29857

**Method: 8260B**  
**Preparation: 5035**

Lab Sample ID: LCS 580-29857/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 0956  
Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29905  
Prep Batch: 580-29857  
Units: mg/Kg

Instrument ID: SEA043  
Lab File ID: VB00100961.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 400 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethene	0.200	0.134	67	65 - 135	
Benzene	0.200	0.169	85	75 - 125	
Trichloroethene	0.200	0.174	87	75 - 125	
Toluene	0.200	0.193	97	70 - 125	
Chlorobenzene	0.200	0.189	94	75 - 125	
Surrogate			% Rec	Acceptance Limits	
Ethylbenzene-d10			107	75 - 125	
Fluorobenzene (Surr)			94	75 - 125	
Toluene-d8 (Surr)			104	85 - 115	
4-Bromofluorobenzene (Surr)			105	85 - 120	
Trifluorotoluene (Surr)			108	75 - 125	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Method Blank - Batch: 580-30000**

**Method: 8270C**

**Preparation: 3550B**

Lab Sample ID: MB 580-30000/1-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/07/2008 1444  
 Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
 Prep Batch: 580-30000  
 Units: mg/Kg

Instrument ID: SEA002  
 Lab File ID: AT09220.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Result	Qual	RL	RL
Phenol	ND		0.10	0.10
Bis(2-chloroethyl)ether	ND		0.10	0.10
2-Chlorophenol	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.050	0.050
1,4-Dichlorobenzene	ND		0.050	0.050
Benzyl alcohol	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.050	0.050
2-Methylphenol	ND		0.10	0.10
3 & 4 Methylphenol	ND		0.20	0.20
N-Nitrosodi-n-propylamine	ND		0.10	0.10
Hexachloroethane	ND		0.10	0.10
Nitrobenzene	ND		0.10	0.10
Isophorone	ND		0.10	0.10
2-Nitrophenol	ND		0.10	0.10
2,4-Dimethylphenol	ND		0.10	0.10
Benzoic acid	ND		2.5	2.5
Bis(2-chloroethoxy)methane	ND		0.10	0.10
2,4-Dichlorophenol	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.050	0.050
Naphthalene	ND		0.020	0.020
4-Chloroaniline	ND		0.10	0.10
Hexachlorobutadiene	ND		0.050	0.050
4-Chloro-3-methylphenol	ND		0.10	0.10
2-Methylnaphthalene	ND		0.020	0.020
Hexachlorocyclopentadiene	ND		0.10	0.10
2,4,6-Trichlorophenol	ND		0.15	0.15
2,4,5-Trichlorophenol	ND		0.10	0.10
2-Chloronaphthalene	ND		0.020	0.020
2-Nitroaniline	ND		0.10	0.10
Dimethyl phthalate	ND		0.10	0.10
Acenaphthylene	ND		0.020	0.020
2,6-Dinitrotoluene	ND		0.10	0.10
3-Nitroaniline	ND		0.10	0.10
Acenaphthene	ND		0.020	0.020
2,4-Dinitrophenol	ND		1.0	1.0
4-Nitrophenol	ND		1.0	1.0
Dibenzofuran	ND		0.10	0.10
2,4-Dinitrotoluene	ND		0.10	0.10
Diethyl phthalate	ND		0.10	0.10
4-Chlorophenyl phenyl ether	ND		0.10	0.10
Fluorene	ND		0.020	0.020

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Method Blank - Batch: 580-30000**

**Method: 8270C  
Preparation: 3550B**

Lab Sample ID: MB 580-30000/1-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/07/2008 1444  
 Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
 Prep Batch: 580-30000  
 Units: mg/Kg

Instrument ID: SEA002  
 Lab File ID: AT09220.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Result	Qual	RL	RL
4-Nitroaniline	ND		0.10	0.10
4,6-Dinitro-2-methylphenol	ND		1.0	1.0
N-Nitrosodiphenylamine	ND		0.050	0.050
4-Bromophenyl phenyl ether	ND		0.10	0.10
Hexachlorobenzene	ND		0.050	0.050
Pentachlorophenol	ND		0.10	0.10
Phenanthrene	ND		0.020	0.020
Anthracene	ND		0.020	0.020
Di-n-butyl phthalate	ND		0.20	0.20
Fluoranthene	ND		0.020	0.020
Pyrene	ND		0.020	0.020
Butyl benzyl phthalate	ND		0.10	0.10
3,3'-Dichlorobenzidine	ND		0.20	0.20
Benzo[a]anthracene	ND		0.025	0.025
Chrysene	ND		0.025	0.025
Bis(2-ethylhexyl) phthalate	ND		1.5	1.5
Di-n-octyl phthalate	ND		0.20	0.20
Benzofluoranthene	ND		0.040	0.040
Benzo[a]pyrene	ND		0.030	0.030
Indeno[1,2,3-cd]pyrene	ND		0.040	0.040
Dibenz(a,h)anthracene	ND		0.040	0.040
Benzo[g,h,i]perylene	ND		0.025	0.025
Carbazole	ND		0.15	0.15
1-Methylnaphthalene	ND		0.030	0.030
Benzo[b]fluoranthene	ND		0.020	0.020
Benzo[k]fluoranthene	ND		0.025	0.025
2,2'-oxybis[1-chloropropane]	ND		0.15	0.15

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	85	42 - 140
2,4,6-Tribromophenol	57	28 - 143
Terphenyl-d14	96	42 - 151
2-Fluorophenol	97	36 - 145
Nitrobenzene-d5	81	38 - 141
Phenol-d5	97	38 - 149

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Lab Control Spike - Batch: 580-30000**

**Method: 8270C**  
**Preparation: 3550B**

Lab Sample ID: LCS 580-30000/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1504  
Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
Prep Batch: 580-30000  
Units: mg/Kg

Instrument ID: SEA002  
Lab File ID: AT09221.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenol	1.00	0.961	96	66 - 126	
Bis(2-chloroethyl)ether	1.00	0.901	90	57 - 122	
2-Chlorophenol	1.00	0.955	96	65 - 125	
1,3-Dichlorobenzene	1.00	0.916	92	64 - 124	
1,4-Dichlorobenzene	1.00	0.845	84	62 - 132	
Benzyl alcohol	1.00	0.928	93	42 - 147	
1,2-Dichlorobenzene	1.00	0.877	88	68 - 118	
2-Methylphenol	1.00	0.942	94	56 - 121	
3 & 4 Methylphenol	1.00	0.954	95	61 - 126	
N-Nitrosodi-n-propylamine	1.00	0.956	96	52 - 127	
Hexachloroethane	1.00	0.866	87	56 - 131	
Nitrobenzene	1.00	0.908	91	59 - 134	
Isophorone	1.00	0.920	92	53 - 118	
2-Nitrophenol	1.00	0.876	88	58 - 128	
2,4-Dimethylphenol	1.00	0.966	97	58 - 133	
Benzoic acid	5.00	3.94	79	10 - 130	
Bis(2-chloroethoxy)methane	1.00	0.910	91	63 - 128	
2,4-Dichlorophenol	1.00	0.957	96	59 - 124	
1,2,4-Trichlorobenzene	1.00	0.876	88	63 - 128	
Naphthalene	1.00	0.863	86	64 - 129	
4-Chloroaniline	1.00	0.882	88	20 - 181	
Hexachlorobutadiene	1.00	0.848	85	59 - 134	
4-Chloro-3-methylphenol	1.00	0.963	96	58 - 128	
2-Methylnaphthalene	1.00	0.915	92	65 - 125	
Hexachlorocyclopentadiene	1.00	0.975	97	30 - 132	
2,4,6-Trichlorophenol	1.00	0.886	89	66 - 131	
2,4,5-Trichlorophenol	1.00	1.02	102	64 - 124	
2-Chloronaphthalene	1.00	0.885	89	69 - 129	
2-Nitroaniline	1.00	0.915	91	58 - 133	
Dimethyl phthalate	1.00	0.939	94	65 - 125	
Acenaphthylene	1.00	1.01	101	69 - 129	
2,6-Dinitrotoluene	1.00	0.954	95	65 - 125	
3-Nitroaniline	1.00	0.997	100	80 - 165	
Acenaphthene	1.00	0.896	90	65 - 130	
2,4-Dinitrophenol	5.00	4.66	93	53 - 168	
4-Nitrophenol	5.00	4.73	95	47 - 172	
Dibenzofuran	1.00	0.903	90	70 - 125	
2,4-Dinitrotoluene	1.00	1.00	100	57 - 122	
Diethyl phthalate	1.00	0.948	95	64 - 129	
4-Chlorophenyl phenyl ether	1.00	0.911	91	65 - 130	
Fluorene	1.00	0.907	91	68 - 128	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

### Lab Control Spike - Batch: 580-30000

**Method: 8270C**

**Preparation: 3550B**

Lab Sample ID: LCS 580-30000/2-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/07/2008 1504  
 Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
 Prep Batch: 580-30000  
 Units: mg/Kg

Instrument ID: SEA002  
 Lab File ID: AT09221.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4-Nitroaniline	1.00	1.09	109	70 - 150	
4,6-Dinitro-2-methylphenol	5.00	4.69	94	38 - 143	
N-Nitrosodiphenylamine	1.00	1.00	100	88 - 153	
4-Bromophenyl phenyl ether	1.00	0.911	91	64 - 134	
Hexachlorobenzene	1.00	0.861	86	61 - 136	
Pentachlorophenol	1.00	0.944	94	29 - 124	
Phenanthrene	1.00	0.880	88	65 - 125	
Anthracene	1.00	0.963	96	73 - 123	
Di-n-butyl phthalate	1.00	0.954	95	69 - 124	
Fluoranthene	1.00	0.943	94	61 - 121	
Pyrene	1.00	0.941	94	54 - 134	
Butyl benzyl phthalate	1.00	0.941	94	65 - 140	
3,3'-Dichlorobenzidine	2.00	2.07	103	73 - 163	
Benzo[a]anthracene	1.00	0.964	96	64 - 124	
Chrysene	1.00	0.858	86	71 - 126	
Bis(2-ethylhexyl) phthalate	1.00	0.862	86	64 - 144	
Di-n-octyl phthalate	1.00	0.974	97	58 - 148	
Benzo[fluoranthene]	2.00	1.88	94	57 - 137	
Benzo[a]pyrene	1.00	0.972	97	68 - 128	
Indeno[1,2,3-cd]pyrene	1.00	0.830	83	59 - 139	
Dibenz(a,h)anthracene	1.00	0.836	84	57 - 142	
Benzo[g,h,i]perylene	1.00	0.803	80	57 - 142	
Carbazole	1.00	1.03	103	88 - 158	
1-Methylnaphthalene	1.00	0.898	90	48 - 148	
Benzo[b]fluoranthene	1.00	0.986	99	66 - 136	
Benzo[k]fluoranthene	1.00	0.917	92	63 - 143	
2,2'-oxybis[1-chloropropane]	1.00	0.887	89	44 - 140	
Surrogate			% Rec	Acceptance Limits	
2-Fluorobiphenyl			86	42 - 140	
2,4,6-Tribromophenol			97	28 - 143	
Terphenyl-d14			96	42 - 151	
2-Fluorophenol			97	36 - 145	
Nitrobenzene-d5			85	38 - 141	
Phenol-d5			98	38 - 149	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Method Blank - Batch: 580-29857**

**Method: NWTPH-Gx  
Preparation: 5035**

Lab Sample ID: MB 580-29857/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 1629  
Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29917  
Prep Batch: 580-29857  
Units: mg/Kg

Instrument ID: SEA041  
Lab File ID: Gx0012976.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 400 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
Gasoline	ND		4.0	4.0
Surrogate	% Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	107		50 - 150	
Trifluorotoluene (Surr)	111		50 - 150	
Ethylbenzene-d10	109		50 - 150	
Fluorobenzene (Surr)	105		50 - 150	
Toluene-d8 (Surr)	112		50 - 150	

**Lab Control Spike - Batch: 580-29857**

**Method: NWTPH-Gx  
Preparation: 5035**

Lab Sample ID: LCS 580-29857/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 1650  
Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29917  
Prep Batch: 580-29857  
Units: mg/Kg

Instrument ID: SEA041  
Lab File ID: Gx0012977.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 400 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Gasoline	44.0	42.3	96	68 - 120	
Surrogate	% Rec		Acceptance Limits		
4-Bromofluorobenzene (Surr)	109		50 - 150		
Trifluorotoluene (Surr)	115		50 - 150		
Ethylbenzene-d10	108		50 - 150		
Fluorobenzene (Surr)	113		50 - 150		
Toluene-d8 (Surr)	107		50 - 150		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Method Blank - Batch: 580-29867**

**Method: 8082**  
**Preparation: 3550B**

Lab Sample ID: MB 580-29867/1-A  
Client Matrix: Solid  
Dilution: 5.0  
Date Analyzed: 04/03/2008 2008  
Date Prepared: 04/02/2008 0927

Analysis Batch: 580-30005  
Prep Batch: 580-29867  
Units: mg/Kg

Instrument ID: SEA034  
Lab File ID: PCB15042.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 20 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
PCB-1016	ND		0.10	0.10
PCB-1221	ND		0.10	0.10
PCB-1232	ND		0.10	0.10
PCB-1242	ND		0.10	0.10
PCB-1248	ND		0.10	0.10
PCB-1254	ND		0.10	0.10
PCB-1260	ND		0.10	0.10

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	126	50 - 150
Tetrachloro-m-xylene	119	45 - 155

**Lab Control Spike - Batch: 580-29867**

**Method: 8082**  
**Preparation: 3550B**

Lab Sample ID: LCS 580-29867/2-A  
Client Matrix: Solid  
Dilution: 5.0  
Date Analyzed: 04/03/2008 2031  
Date Prepared: 04/02/2008 0927

Analysis Batch: 580-30005  
Prep Batch: 580-29867  
Units: mg/Kg

Instrument ID: SEA034  
Lab File ID: PCB15043.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 20 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	1.00	1.16	116	57 - 128	
PCB-1260	1.00	1.37	137	65 - 132	*

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	138	50 - 150
Tetrachloro-m-xylene	127	45 - 155

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Method Blank - Batch: 580-29984**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: MB 580-29984/1-B  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/09/2008 1119  
 Date Prepared: 04/04/2008 1505

Analysis Batch: 580-30147  
 Prep Batch: 580-29984  
 Units: mg/Kg

Instrument ID: SEA016  
 Lab File ID: EP23774.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Result	Qual	RL	RL
Motor Oil (>C24-C36)	ND		50	50
#2 Diesel (C10-C24)	ND		25	25
Surrogate	% Rec		Acceptance Limits	
o-Terphenyl	114		50 - 150	

**Lab Control Spike - Batch: 580-29984**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: LCS 580-29984/2-B  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/09/2008 1139  
 Date Prepared: 04/04/2008 1505

Analysis Batch: 580-30147  
 Prep Batch: 580-29984  
 Units: mg/Kg

Instrument ID: SEA016  
 Lab File ID: EP23775.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Motor Oil (>C24-C36)	500	578	116	70 - 125	
#2 Diesel (C10-C24)	500	614	123	64 - 127	
Surrogate		% Rec		Acceptance Limits	
o-Terphenyl		124		50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Method Blank - Batch: 580-30007**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: MB 580-30007/1-B  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/09/2008 1415  
 Date Prepared: 04/07/2008 0936

Analysis Batch: 580-30147  
 Prep Batch: 580-30007  
 Units: mg/Kg

Instrument ID: SEA016  
 Lab File ID: EP23782.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Result	Qual	RL	RL
Motor Oil (>C24-C36)	ND		50	50
#2 Diesel (C10-C24)	ND		25	25
Surrogate	% Rec		Acceptance Limits	
o-Terphenyl	108		50 - 150	

**Lab Control Spike - Batch: 580-30007**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: LCS 580-30007/2-B  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/09/2008 1436  
 Date Prepared: 04/07/2008 0936

Analysis Batch: 580-30147  
 Prep Batch: 580-30007  
 Units: mg/Kg

Instrument ID: SEA016  
 Lab File ID: EP23783.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Motor Oil (>C24-C36)	500	559	112	70 - 125	
#2 Diesel (C10-C24)	500	588	118	64 - 127	
Surrogate		% Rec		Acceptance Limits	
o-Terphenyl		123		50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Method Blank - Batch: 580-30081**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: MB 580-30081/1-B  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/09/2008 1611  
 Date Prepared: 04/08/2008 1452

Analysis Batch: 580-30147  
 Prep Batch: 580-30081  
 Units: mg/Kg

Instrument ID: SEA016  
 Lab File ID: EP23787.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Result	Qual	RL	RL
Motor Oil (>C24-C36)	ND		50	50
#2 Diesel (C10-C24)	ND		25	25
Surrogate	% Rec		Acceptance Limits	
o-Terphenyl	103		50 - 150	

**Lab Control Spike - Batch: 580-30081**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: LCS 580-30081/2-B  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/09/2008 1632  
 Date Prepared: 04/08/2008 1452

Analysis Batch: 580-30147  
 Prep Batch: 580-30081  
 Units: mg/Kg

Instrument ID: SEA016  
 Lab File ID: EP23788.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Motor Oil (>C24-C36)	500	566	113	70 - 125	
#2 Diesel (C10-C24)	500	546	109	64 - 127	
Surrogate		% Rec		Acceptance Limits	
o-Terphenyl		112		50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Method Blank - Batch: 580-29840**

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: MB 580-29840/23-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2008 1901  
Date Prepared: 04/01/2008 1104

Analysis Batch: 580-29862  
Prep Batch: 580-29840  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Arsenic	ND		3.0	3.0
Barium	ND		0.50	0.50
Cadmium	ND		0.50	0.50
Chromium	ND		1.3	1.3
Lead	ND		1.5	1.5
Selenium	ND		5.0	5.0
Silver	ND		1.0	1.0

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-29840**

**Method: 6010B**  
**Preparation: 3050B**

LCS Lab Sample ID: LCS 580-29840/24-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2008 2054  
Date Prepared: 04/01/2008 1104

Analysis Batch: 580-29862  
Prep Batch: 580-29840  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-29840/25-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2008 2058  
Date Prepared: 04/01/2008 1104

Analysis Batch: 580-29862  
Prep Batch: 580-29840  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	86	86	80 - 120	0	35		
Barium	94	96	80 - 120	1	35		
Cadmium	91	93	80 - 120	2	35		
Chromium	91	92	80 - 120	1	35		
Lead	90	92	80 - 120	3	35		
Selenium	81	81	80 - 120	0	35		
Silver	93	94	80 - 120	1	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9461-1

### Method Blank - Batch: 580-29846

Lab Sample ID: MB 580-29846/23-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 0950  
Date Prepared: 04/02/2008 0820

Analysis Batch: 580-29881  
Prep Batch: 580-29846  
Units: mg/Kg

### Method: 7471A Preparation: 7471A

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Mercury	ND		0.010	0.010

Calculations are performed before rounding to avoid round-off errors in calculated results.

## DATA REPORTING QUALIFIERS

Client: GeoEngineers Inc

Job Number: 580-9461-1

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
GC/MS VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate exceeds the control limits
GC/MS Semi VOA		
	X	Surrogate exceeds the control limits
GC Semi VOA		
	*	LCS or LCSD exceeds the control limits
	X	Surrogate exceeds the control limits

9461 (1 of 2)

Client <b>GeoEngineers</b>		Project Manager <b>Kevin Brown</b>		Date <b>3/26/08</b>		Chain of Custody Number <b>00523</b>							
Address <b>1101 S. Favett STE 200</b>		Telephone Number (Area Code)/Fax Number <b>253.383.4940</b>		Lab Number		Page <b>1 of 2</b>							
City <b>Tacoma</b>		State <b>WA</b>		Zip Code <b>98401</b>		Analysis (Attach list if more space is needed)							
Project Name and Location (State) <b>City of Olympia 045-049-02</b>		Carrier/Waybill Number		Lab Contact		Special Instructions/Conditions of Receipt <b>* Dx w/ Silic Gel Cleanup</b>							
Contract/Purchase Order/Quote No.		Matrix		Containers & Preservatives									
Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	
1. B1-032608-3	3/26/08	0900	X										
2. P1-032608-7	}	0910											
3. B1-032608-10		0915											
4. B2-032608-2		1145											
5. B2-032608-7		1200											
6. B2-032608-10		1210											
7. B3-032608-3		1015											
8. B3-032608-7		1025											
9. B3-032608-10		1030											
10. MW4-032608-3		1315											
11. MW4-032608-6		1320											
12. MW4-032608-9		1330											

Sample Disposal  Disposal By Lab (A fee may be assessed if samples are retained longer than 1 month)

Return To Client  Archive For \_\_\_\_\_ Months

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Unpres.

QC Requirements (Specify)  
 1. Received By **R. L. Deak** Date **3/26/08** Time **1315**  
 2. Received By **R. L. Deak** Date **3-28-08** Time **2:10**  
 3. Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Turn Around Time Required (business days)  
 24 Hours  48 Hours  5 Days  10 Days  15 Days  Other \_\_\_\_\_

Reinquinished By **R. L. Deak** Date **3/26/08** Time **1315**  
 Reinquinished By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Reinquinished By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Comments

9461 (2 of 2)

Client		Project Manager		Chain of Custody Number <b>00522</b>																												
Address		Telephone Number (Area Code)/Fax Number		Page <b>2</b> of <b>2</b>																												
City	State	Zip Code	Site Contact	Lab Contact	Date <b>3/26/08</b>																											
Project Name and Location (State)		Carrier/Waybill Number	Analysis (Attach list if more space is needed)																													
Contract/Purchase Order/Quote No. <b>0415-049-02</b>		Matrix	Special Instructions/ Conditions of Receipt																													
Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnCl NaOH	Containers & Preservatives	Analysis (Attach list if more space is needed)																		
B. MWS-032608-3	3/26/08	1430				X								WTPH-G	WTPH-DX	RCMA Metals	VC 8360B	SVC 8230C	PCB 8082	CPH 8230C												
MWS-032608-7		1440												X	X	X	X	X	X	X	X											
MWS-032608-9		1445												X	X	X	X	X	X	X	X											

101 of 102

QC Requirements (Specify)

1. Relinquished By He Dard Date 3/26/08 Time 1515

2. Relinquished By He Dard Date 3/26/08 Time 1515

3. Relinquished By He Dard Date 3/26/08 Time 1515

1. Received By He Dard Date 3-20-08 Time 2:10

2. Received By He Dard Date 3-20-08 Time 2:10

3. Received By He Dard Date 3-20-08 Time 2:10

Comments

# Login Sample Receipt Check List

Client: GeoEngineers Inc

Job Number: 580-9461-1

**Login Number: 9461**  
**Creator: Urness, Richard**  
**List Number: 1**

**List Source: TestAmerica Tacoma**

<b>Question</b>	<b>T / F / NA</b>	<b>Comment</b>
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	



## ANALYTICAL REPORT

Job Number: 580-9494-1

Job Description: 0415-049-02-City of Olympia

For:

GeoEngineers Inc  
1101 Fawcett, Suite 200  
Tacoma, WA 98402

Attention: Kevin M Broom



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Heather Curbow  
Project Manager I  
heather.curbow@testamericainc.com  
04/16/2008

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This report shall not be reproduced except in full, without prior express written approval by the laboratory. The results relate only to the item(s) tested and the sample(s) as received by the laboratory.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted in the case narrative.

**TestAmerica Laboratories, Inc.**

TestAmerica Tacoma 5755 8th Street East, Tacoma, WA 98424  
Tel (253) 922-2310 Fax (253) 922-5047 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative**  
**580-J9494-1**

**Comments**

No additional comments.

**Receipt**

Adjusted pH in metals bottles on following samples: MW6, MW2, MW4, MW5, MW7

All other samples were received in good condition within temperature requirements.

**GC/MS VOA**

**8260B: 5030/8260B 25mL Purge**

The 121% recovery of the surrogate spiking compound Ethylbenzene-d10 exceeded the QC recovery range of 80-120% in the LCS associated with analytical batch 30032. Since all sample spike recoveries and all other surrogates were within QC control limits, and current surrogate recovery limits of 80-120% are advisory defaults for the 25mL purge analysis, the anomalies have been flagged on the appropriate forms and no further corrective action was performed.

The recovery of the surrogate spiking compound Trifluorotoluene (TFT) exceeded the QC recovery range of 80-120% in samples 580-9494-1, -4, -5, and -6 in analytical batch 30032. Since all other surrogates were within QC control limits, and current surrogate recovery limits of 80-120% are advisory defaults for the 25mL purge analysis, the anomalies have been flagged on the appropriate forms and no further corrective action was performed.

No other analytical or quality issues were noted.

**GC/MS Semi VOA**

**8270C:**

A surrogate recovery for the blank associated with batch 29965 was outside recovery limits. All associated sample surrogates fell within acceptance criteria; therefore, the data have been reported.

The laboratory control standard (LCS) for batch 29965 was below control limits for the following analytes: 2,4-Dimethylphenol and 3-Nitroaniline. Total does not exceed max. allowable. Therefore data reported.

No other analytical or quality issues were noted.

**GC Semi VOA**

**8011:**

Surrogate recovery for several samples was outside the upper control limit. The associated samples did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-9494-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>580-9494-1</b>	<b>MW6-033108-W</b>				
Vinyl chloride		0.27	0.020	ug/L	8260B
Benzene		0.19	0.10	ug/L	8260B
cis-1,2-Dichloroethene		0.22	0.10	ug/L	8260B
Toluene		0.16	0.10	ug/L	8260B
Benzoic acid		1.2	0.95	ug/L	8270C
<i>Dissolved</i>					
Barium		13	10	ug/L	6010B
<i>Total Recoverable</i>					
Barium		25	10	ug/L	6010B
<b>580-9494-2</b>	<b>MW2-033108-W</b>				
Vinyl chloride		0.45	0.020	ug/L	8260B
m-Xylene & p-Xylene		0.20	0.20	ug/L	8260B
Benzene		0.11	0.10	ug/L	8260B
cis-1,2-Dichloroethene		0.45	0.10	ug/L	8260B
Toluene		0.15	0.10	ug/L	8260B
Tetrachloroethene		0.24	0.10	ug/L	8260B
Trichlorofluoromethane		1.1	0.10	ug/L	8260B
Trichloroethene		5.3	0.10	ug/L	8260B
Benzoic acid		1.2	0.96	ug/L	8270C
<i>Dissolved</i>					
Barium		25	10	ug/L	6010B
<i>Total Recoverable</i>					
Barium		29	10	ug/L	6010B
Arsenic		2.5	2.0	ug/L	6020
<b>580-9494-3</b>	<b>MW3-033108-W</b>				
Vinyl chloride		1.7	0.020	ug/L	8260B
cis-1,2-Dichloroethene		1.7	0.10	ug/L	8260B
Toluene		0.13	0.10	ug/L	8260B
1,1-Dichloroethene		0.32	0.10	ug/L	8260B
Trichloroethene		3.8	0.10	ug/L	8260B
trans-1,2-Dichloroethene		0.19	0.10	ug/L	8260B
Benzoic acid		1.2	0.94	ug/L	8270C
<i>Total Recoverable</i>					
Barium		12	10	ug/L	6010B

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-9494-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>580-9494-4</b>	<b>MW1-033108-W</b>				
Toluene		0.16	0.10	ug/L	8260B
Benzo[a]pyrene		0.044	0.020	ug/L	8270C
<i>Dissolved</i>					
Barium		15	10	ug/L	6010B
Arsenic		5.3	2.0	ug/L	6020
<i>Total Recoverable</i>					
Barium		28	10	ug/L	6010B
Arsenic		7.9	2.0	ug/L	6020
<b>580-9494-5</b>	<b>MW4-033108-W</b>				
Vinyl chloride		0.35	0.020	ug/L	8260B
sec-Butylbenzene		0.12	0.10	ug/L	8260B
m-Xylene & p-Xylene		0.22	0.20	ug/L	8260B
o-Xylene		0.12	0.10	ug/L	8260B
Benzene		0.17	0.10	ug/L	8260B
cis-1,2-Dichloroethene		0.15	0.10	ug/L	8260B
1,2,4-Trimethylbenzene		0.12	0.10	ug/L	8260B
Toluene		0.15	0.10	ug/L	8260B
tert-Butylbenzene		0.10	0.10	ug/L	8260B
Trichloroethene		0.35	0.10	ug/L	8260B
Benzoic acid		1.3	0.96	ug/L	8270C
<i>Dissolved</i>					
Barium		28	10	ug/L	6010B
<i>Total Recoverable</i>					
Barium		47	10	ug/L	6010B

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-9494-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>580-9494-6</b>	<b>MW5-033108-W</b>				
Vinyl chloride		1.5	0.020	ug/L	8260B
m-Xylene & p-Xylene		0.20	0.20	ug/L	8260B
Benzene		0.33	0.10	ug/L	8260B
cis-1,2-Dichloroethene		0.21	0.10	ug/L	8260B
Toluene		0.23	0.10	ug/L	8260B
Trichlorofluoromethane		7.5	0.10	ug/L	8260B
Trichloroethene		1.4	0.10	ug/L	8260B
<i>Dissolved</i>					
Barium		38	10	ug/L	6010B
Arsenic		4.7	2.0	ug/L	6020
<i>Total Recoverable</i>					
Barium		41	10	ug/L	6010B
Arsenic		6.1	2.0	ug/L	6020
Lead		3.9	2.0	ug/L	6020
<b>580-9494-7</b>	<b>MW7-033108-W</b>				
Vinyl chloride		3.5	0.020	ug/L	8260B
Benzene		0.34	0.10	ug/L	8260B
cis-1,2-Dichloroethene		0.50	0.10	ug/L	8260B
Toluene		0.16	0.10	ug/L	8260B
Trichloroethene		0.22	0.10	ug/L	8260B
Benzoic acid		1.2	0.96	ug/L	8270C
<i>Dissolved</i>					
Barium		30	10	ug/L	6010B
Arsenic		2.5	2.0	ug/L	6020
<i>Total Recoverable</i>					
Barium		36	10	ug/L	6010B
Arsenic		3.2	2.0	ug/L	6020
<b>580-9494-8</b>	<b>MW8-040108-W</b>				
Toluene		0.15	0.10	ug/L	8260B
<i>Dissolved</i>					
Barium		27	10	ug/L	6010B
<i>Total Recoverable</i>					
Barium		31	10	ug/L	6010B

## EXECUTIVE SUMMARY - Detections

Client: GeoEngineers Inc

Job Number: 580-9494-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>580-9494-9</b>	<b>MW9-040108-W</b>				
Vinyl chloride		0.80	0.020	ug/L	8260B
Benzene		0.12	0.10	ug/L	8260B
Toluene		0.15	0.10	ug/L	8260B
Trichlorofluoromethane		0.18	0.10	ug/L	8260B
<i>Dissolved</i>					
Barium		21	10	ug/L	6010B
Arsenic		2.9	2.0	ug/L	6020
<i>Total Recoverable</i>					
Barium		23	10	ug/L	6010B
Arsenic		3.4	2.0	ug/L	6020

## METHOD SUMMARY

Client: GeoEngineers Inc

Job Number: 580-9494-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Volatile Organic Compounds by GC/MS (Low Level)	TAL TAC	SW846 8260B	
Purge-and-Trap	TAL TAC		SW846 5030B
Volatile Petroleum Products	TAL TAC	NWTPH NWTPH-Gx	
Purge-and-Trap	TAL TAC		SW846 5030B
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	TAL TAC	SW846 8270C	
Separatory Funnel Liquid-Liquid Extraction (Low Level)	TAL TAC		SW846 3510C
EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography	TAL SAV	SW846 8011	
EDB, DBCP, and 123TCP in Water by Microextraction	TAL SAV		SW846 8011
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL TAC	SW846 8082	
Separatory Funnel Liquid-Liquid Extraction	TAL TAC		SW846 3510C
Semi-Volatile Petroleum Products by NWTPH-Dx	TAL TAC	NWTPH NWTPH-Dx	
Separatory Funnel Liquid-Liquid Extraction	TAL TAC		SW846 3510C
Silica Gel Cleanup	TAL TAC		SW846 3630C
Inductively Coupled Plasma - Atomic Emission Spectrometry	TAL TAC	SW846 6010B	
Acid Digestion of Waters for Total Recoverable or	TAL TAC		SW846 3005A
Sample Filtration	TAL TAC		FILTRATION
Inductively Coupled Plasma - Mass Spectrometry	TAL TAC	SW846 6020	
Acid Digestion of Waters for Total Recoverable or	TAL TAC		SW846 3005A
Sample Filtration	TAL TAC		FILTRATION
Mercury in Liquid Waste (Manual Cold Vapor Technique)	TAL TAC	SW846 7470A	
Sample Filtration	TAL TAC		FILTRATION
Mercury in Liquid Waste (Manual Cold Vapor	TAL TAC		SW846 7470A

**Lab References:**

TAL SAV = TestAmerica Savannah

TAL TAC = TestAmerica Tacoma

**Method References:**

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: GeoEngineers Inc

Job Number: 580-9494-1

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
580-9494-1	MW6-033108-W	Water	03/31/2008 1620	04/02/2008 1050
580-9494-2	MW2-033108-W	Water	03/31/2008 1520	04/02/2008 1050
580-9494-3	MW3-033108-W	Water	03/31/2008 1335	04/02/2008 1050
580-9494-4	MW1-033108-W	Water	03/31/2008 1315	04/02/2008 1050
580-9494-5	MW4-033108-W	Water	03/31/2008 1445	04/02/2008 1050
580-9494-6	MW5-033108-W	Water	03/31/2008 1610	04/02/2008 1050
580-9494-7	MW7-033108-W	Water	03/31/2008 1750	04/02/2008 1050
580-9494-8	MW8-040108-W	Water	04/01/2008 1305	04/02/2008 1050
580-9494-9	MW9-040108-W	Water	04/01/2008 1320	04/02/2008 1050



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW6-033108-W**

Lab Sample ID: 580-9494-1

Date Sampled: 03/31/2008 1620

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17494.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1828		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1828		

Analyte	Result (ug/L)	Qualifier	RL	RL
1,2,3-Trichloropropane	ND		0.20	0.20
Carbon tetrachloride	ND		0.10	0.10
Chloroethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.10	0.10
2-Chlorotoluene	ND		0.10	0.10
Chlorobenzene	ND		0.10	0.10
Vinyl chloride	0.27		0.020	0.020
sec-Butylbenzene	ND		0.10	0.10
Dibromomethane	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.20	0.20
m-Xylene & p-Xylene	ND		0.20	0.20
o-Xylene	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.20	0.20
Styrene	ND		0.10	0.10
Chlorobromomethane	ND		0.10	0.10
Dichlorobromomethane	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.20	0.20
Benzene	0.19		0.10	0.10
trans-1,3-Dichloropropene	ND		0.10	0.10
1,2,3-Trichlorobenzene	ND		0.40	0.40
N-Propylbenzene	ND		0.10	0.10
4-Isopropyltoluene	ND		0.20	0.20
n-Butylbenzene	ND		0.10	0.10
1,1-Dichloropropene	ND		0.10	0.10
cis-1,2-Dichloroethene	0.22		0.10	0.10
1,1,2,2-Tetrachloroethane	ND		0.10	0.10
1,2,4-Trimethylbenzene	ND		0.10	0.10
Toluene	0.16		0.10	0.10
Naphthalene	ND		0.40	0.40
1,3,5-Trimethylbenzene	ND		0.10	0.10
1,3-Dichloropropane	ND		0.10	0.10
Chloroform	ND		0.10	0.10
4-Chlorotoluene	ND		0.20	0.20
Chlorodibromomethane	ND		0.10	0.10
Dichlorodifluoromethane	ND		0.40	0.40
1,1,2-Trichloroethane	ND		0.10	0.10
tert-Butylbenzene	ND		0.10	0.10
Chloromethane	ND		0.10	0.10
Methylene Chloride	ND		0.10	0.10
1,1-Dichloroethene	ND		0.10	0.10
Isopropylbenzene	ND		0.10	0.10
1,2-Dichloroethane	ND		0.10	0.10
Tetrachloroethene	ND		0.10	0.10
1,1,1-Trichloroethane	ND		0.10	0.10

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW6-033108-W**

Lab Sample ID: 580-9494-1

Date Sampled: 03/31/2008 1620

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17494.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1828		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1828		

Analyte	Result (ug/L)	Qualifier	RL	RL
2,2-Dichloropropane	ND		0.10	0.10
Bromoform	ND		0.10	0.10
1,2-Dibromo-3-Chloropropane	ND		0.20	0.20
Trichlorofluoromethane	ND		0.10	0.10
Trichloroethene	ND		0.10	0.10
Bromobenzene	ND		0.10	0.10
1,2-Dichloropropane	ND		0.10	0.10
1,1,1,2-Tetrachloroethane	ND		0.10	0.10
Ethylbenzene	ND		0.10	0.10
trans-1,2-Dichloroethene	ND		0.10	0.10
Hexachlorobutadiene	ND		0.20	0.20
1,1-Dichloroethane	ND		0.10	0.10
Bromomethane	ND		0.10	0.10
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	102		80 - 120	
Ethylbenzene-d10	103		80 - 120	
Fluorobenzene (Surr)	106		80 - 120	
Trifluorotoluene (Surr)	123	X	80 - 120	
Toluene-d8 (Surr)	97		80 - 120	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW2-033108-W**

Lab Sample ID: 580-9494-2

Date Sampled: 03/31/2008 1520

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17486.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1458		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1458		

Analyte	Result (ug/L)	Qualifier	RL	RL
1,2,3-Trichloropropane	ND		0.20	0.20
Carbon tetrachloride	ND		0.10	0.10
Chloroethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.10	0.10
2-Chlorotoluene	ND		0.10	0.10
Chlorobenzene	ND		0.10	0.10
Vinyl chloride	0.45		0.020	0.020
sec-Butylbenzene	ND		0.10	0.10
Dibromomethane	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.20	0.20
m-Xylene & p-Xylene	0.20		0.20	0.20
o-Xylene	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.20	0.20
Styrene	ND		0.10	0.10
Chlorobromomethane	ND		0.10	0.10
Dichlorobromomethane	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.20	0.20
Benzene	0.11		0.10	0.10
trans-1,3-Dichloropropene	ND		0.10	0.10
1,2,3-Trichlorobenzene	ND		0.40	0.40
N-Propylbenzene	ND		0.10	0.10
4-Isopropyltoluene	ND		0.20	0.20
n-Butylbenzene	ND		0.10	0.10
1,1-Dichloropropene	ND		0.10	0.10
cis-1,2-Dichloroethene	0.45		0.10	0.10
1,1,2,2-Tetrachloroethane	ND		0.10	0.10
1,2,4-Trimethylbenzene	ND		0.10	0.10
Toluene	0.15		0.10	0.10
Naphthalene	ND		0.40	0.40
1,3,5-Trimethylbenzene	ND		0.10	0.10
1,3-Dichloropropane	ND		0.10	0.10
Chloroform	ND		0.10	0.10
4-Chlorotoluene	ND		0.20	0.20
Chlorodibromomethane	ND		0.10	0.10
Dichlorodifluoromethane	ND		0.40	0.40
1,1,2-Trichloroethane	ND		0.10	0.10
tert-Butylbenzene	ND		0.10	0.10
Chloromethane	ND		0.10	0.10
Methylene Chloride	ND		0.10	0.10
1,1-Dichloroethene	ND		0.10	0.10
Isopropylbenzene	ND		0.10	0.10
1,2-Dichloroethane	ND		0.10	0.10
Tetrachloroethene	0.24		0.10	0.10
1,1,1-Trichloroethane	ND		0.10	0.10

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW2-033108-W**

Lab Sample ID: 580-9494-2

Date Sampled: 03/31/2008 1520

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17486.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1458		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1458		

Analyte	Result (ug/L)	Qualifier	RL	RL
2,2-Dichloropropane	ND		0.10	0.10
Bromoform	ND		0.10	0.10
1,2-Dibromo-3-Chloropropane	ND		0.20	0.20
Trichlorofluoromethane	1.1		0.10	0.10
Trichloroethene	5.3		0.10	0.10
Bromobenzene	ND		0.10	0.10
1,2-Dichloropropane	ND		0.10	0.10
1,1,1,2-Tetrachloroethane	ND		0.10	0.10
Ethylbenzene	ND		0.10	0.10
trans-1,2-Dichloroethene	ND		0.10	0.10
Hexachlorobutadiene	ND		0.20	0.20
1,1-Dichloroethane	ND		0.10	0.10
Bromomethane	ND		0.10	0.10
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	105		80 - 120	
Ethylbenzene-d10	106		80 - 120	
Fluorobenzene (Surr)	108		80 - 120	
Trifluorotoluene (Surr)	120		80 - 120	
Toluene-d8 (Surr)	102		80 - 120	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW3-033108-W**

Lab Sample ID: 580-9494-3

Date Sampled: 03/31/2008 1335

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17487.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1524		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1524		

Analyte	Result (ug/L)	Qualifier	RL	RL
1,2,3-Trichloropropane	ND		0.20	0.20
Carbon tetrachloride	ND		0.10	0.10
Chloroethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.10	0.10
2-Chlorotoluene	ND		0.10	0.10
Chlorobenzene	ND		0.10	0.10
Vinyl chloride	1.7		0.020	0.020
sec-Butylbenzene	ND		0.10	0.10
Dibromomethane	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.20	0.20
m-Xylene & p-Xylene	ND		0.20	0.20
o-Xylene	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.20	0.20
Styrene	ND		0.10	0.10
Chlorobromomethane	ND		0.10	0.10
Dichlorobromomethane	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.20	0.20
Benzene	ND		0.10	0.10
trans-1,3-Dichloropropene	ND		0.10	0.10
1,2,3-Trichlorobenzene	ND		0.40	0.40
N-Propylbenzene	ND		0.10	0.10
4-Isopropyltoluene	ND		0.20	0.20
n-Butylbenzene	ND		0.10	0.10
1,1-Dichloropropene	ND		0.10	0.10
cis-1,2-Dichloroethene	1.7		0.10	0.10
1,1,2,2-Tetrachloroethane	ND		0.10	0.10
1,2,4-Trimethylbenzene	ND		0.10	0.10
Toluene	0.13		0.10	0.10
Naphthalene	ND		0.40	0.40
1,3,5-Trimethylbenzene	ND		0.10	0.10
1,3-Dichloropropane	ND		0.10	0.10
Chloroform	ND		0.10	0.10
4-Chlorotoluene	ND		0.20	0.20
Chlorodibromomethane	ND		0.10	0.10
Dichlorodifluoromethane	ND		0.40	0.40
1,1,2-Trichloroethane	ND		0.10	0.10
tert-Butylbenzene	ND		0.10	0.10
Chloromethane	ND		0.10	0.10
Methylene Chloride	ND		0.10	0.10
1,1-Dichloroethene	0.32		0.10	0.10
Isopropylbenzene	ND		0.10	0.10
1,2-Dichloroethane	ND		0.10	0.10
Tetrachloroethene	ND		0.10	0.10
1,1,1-Trichloroethane	ND		0.10	0.10

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW3-033108-W**

Lab Sample ID: 580-9494-3

Date Sampled: 03/31/2008 1335

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17487.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1524		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1524		

Analyte	Result (ug/L)	Qualifier	RL	RL
2,2-Dichloropropane	ND		0.10	0.10
Bromoform	ND		0.10	0.10
1,2-Dibromo-3-Chloropropane	ND		0.20	0.20
Trichlorofluoromethane	ND		0.10	0.10
Trichloroethene	3.8		0.10	0.10
Bromobenzene	ND		0.10	0.10
1,2-Dichloropropane	ND		0.10	0.10
1,1,1,2-Tetrachloroethane	ND		0.10	0.10
Ethylbenzene	ND		0.10	0.10
trans-1,2-Dichloroethene	0.19		0.10	0.10
Hexachlorobutadiene	ND		0.20	0.20
1,1-Dichloroethane	ND		0.10	0.10
Bromomethane	ND		0.10	0.10
Surrogate	%Rec	Acceptance Limits		
4-Bromofluorobenzene (Surr)	106	80 - 120		
Ethylbenzene-d10	104	80 - 120		
Fluorobenzene (Surr)	105	80 - 120		
Trifluorotoluene (Surr)	118	80 - 120		
Toluene-d8 (Surr)	99	80 - 120		

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW1-033108-W**

Lab Sample ID: 580-9494-4

Date Sampled: 03/31/2008 1315

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17495.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1854		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1854		

Analyte	Result (ug/L)	Qualifier	RL	RL
1,2,3-Trichloropropane	ND		0.20	0.20
Carbon tetrachloride	ND		0.10	0.10
Chloroethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.10	0.10
2-Chlorotoluene	ND		0.10	0.10
Chlorobenzene	ND		0.10	0.10
Vinyl chloride	ND		0.020	0.020
sec-Butylbenzene	ND		0.10	0.10
Dibromomethane	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.20	0.20
m-Xylene & p-Xylene	ND		0.20	0.20
o-Xylene	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.20	0.20
Styrene	ND		0.10	0.10
Chlorobromomethane	ND		0.10	0.10
Dichlorobromomethane	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.20	0.20
Benzene	ND		0.10	0.10
trans-1,3-Dichloropropene	ND		0.10	0.10
1,2,3-Trichlorobenzene	ND		0.40	0.40
N-Propylbenzene	ND		0.10	0.10
4-Isopropyltoluene	ND		0.20	0.20
n-Butylbenzene	ND		0.10	0.10
1,1-Dichloropropene	ND		0.10	0.10
cis-1,2-Dichloroethene	ND		0.10	0.10
1,1,2,2-Tetrachloroethane	ND		0.10	0.10
1,2,4-Trimethylbenzene	ND		0.10	0.10
Toluene	0.16		0.10	0.10
Naphthalene	ND		0.40	0.40
1,3,5-Trimethylbenzene	ND		0.10	0.10
1,3-Dichloropropane	ND		0.10	0.10
Chloroform	ND		0.10	0.10
4-Chlorotoluene	ND		0.20	0.20
Chlorodibromomethane	ND		0.10	0.10
Dichlorodifluoromethane	ND		0.40	0.40
1,1,2-Trichloroethane	ND		0.10	0.10
tert-Butylbenzene	ND		0.10	0.10
Chloromethane	ND		0.10	0.10
Methylene Chloride	ND		0.10	0.10
1,1-Dichloroethene	ND		0.10	0.10
Isopropylbenzene	ND		0.10	0.10
1,2-Dichloroethane	ND		0.10	0.10
Tetrachloroethene	ND		0.10	0.10
1,1,1-Trichloroethane	ND		0.10	0.10

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW1-033108-W**

Lab Sample ID: 580-9494-4

Date Sampled: 03/31/2008 1315

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17495.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1854		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1854		

Analyte	Result (ug/L)	Qualifier	RL	RL
2,2-Dichloropropane	ND		0.10	0.10
Bromoform	ND		0.10	0.10
1,2-Dibromo-3-Chloropropane	ND		0.20	0.20
Trichlorofluoromethane	ND		0.10	0.10
Trichloroethene	ND		0.10	0.10
Bromobenzene	ND		0.10	0.10
1,2-Dichloropropane	ND		0.10	0.10
1,1,1,2-Tetrachloroethane	ND		0.10	0.10
Ethylbenzene	ND		0.10	0.10
trans-1,2-Dichloroethene	ND		0.10	0.10
Hexachlorobutadiene	ND		0.20	0.20
1,1-Dichloroethane	ND		0.10	0.10
Bromomethane	ND		0.10	0.10
Surrogate	%Rec	Acceptance Limits		
4-Bromofluorobenzene (Surr)	100	80 - 120		
Ethylbenzene-d10	98	80 - 120		
Fluorobenzene (Surr)	108	80 - 120		
Trifluorotoluene (Surr)	118	80 - 120		
Toluene-d8 (Surr)	93	80 - 120		



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW4-033108-W**

Lab Sample ID: 580-9494-5

Date Sampled: 03/31/2008 1445

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17489.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1617		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1617		

Analyte	Result (ug/L)	Qualifier	RL	RL
1,2,3-Trichloropropane	ND		0.20	0.20
Carbon tetrachloride	ND		0.10	0.10
Chloroethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.10	0.10
2-Chlorotoluene	ND		0.10	0.10
Chlorobenzene	ND		0.10	0.10
Vinyl chloride	0.35		0.020	0.020
sec-Butylbenzene	0.12		0.10	0.10
Dibromomethane	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.20	0.20
m-Xylene & p-Xylene	0.22		0.20	0.20
o-Xylene	0.12		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.20	0.20
Styrene	ND		0.10	0.10
Chlorobromomethane	ND		0.10	0.10
Dichlorobromomethane	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.20	0.20
Benzene	0.17		0.10	0.10
trans-1,3-Dichloropropene	ND		0.10	0.10
1,2,3-Trichlorobenzene	ND		0.40	0.40
N-Propylbenzene	ND		0.10	0.10
4-Isopropyltoluene	ND		0.20	0.20
n-Butylbenzene	ND		0.10	0.10
1,1-Dichloropropene	ND		0.10	0.10
cis-1,2-Dichloroethene	0.15		0.10	0.10
1,1,2,2-Tetrachloroethane	ND		0.10	0.10
1,2,4-Trimethylbenzene	0.12		0.10	0.10
Toluene	0.15		0.10	0.10
Naphthalene	ND		0.40	0.40
1,3,5-Trimethylbenzene	ND		0.10	0.10
1,3-Dichloropropane	ND		0.10	0.10
Chloroform	ND		0.10	0.10
4-Chlorotoluene	ND		0.20	0.20
Chlorodibromomethane	ND		0.10	0.10
Dichlorodifluoromethane	ND		0.40	0.40
1,1,2-Trichloroethane	ND		0.10	0.10
tert-Butylbenzene	0.10		0.10	0.10
Chloromethane	ND		0.10	0.10
Methylene Chloride	ND		0.10	0.10
1,1-Dichloroethene	ND		0.10	0.10
Isopropylbenzene	ND		0.10	0.10
1,2-Dichloroethane	ND		0.10	0.10
Tetrachloroethene	ND		0.10	0.10
1,1,1-Trichloroethane	ND		0.10	0.10

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW4-033108-W**

Lab Sample ID: 580-9494-5

Date Sampled: 03/31/2008 1445

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17489.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1617		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1617		

Analyte	Result (ug/L)	Qualifier	RL	RL
2,2-Dichloropropane	ND		0.10	0.10
Bromoform	ND		0.10	0.10
1,2-Dibromo-3-Chloropropane	ND		0.20	0.20
Trichlorofluoromethane	ND		0.10	0.10
Trichloroethene	0.35		0.10	0.10
Bromobenzene	ND		0.10	0.10
1,2-Dichloropropane	ND		0.10	0.10
1,1,1,2-Tetrachloroethane	ND		0.10	0.10
Ethylbenzene	ND		0.10	0.10
trans-1,2-Dichloroethene	ND		0.10	0.10
Hexachlorobutadiene	ND		0.20	0.20
1,1-Dichloroethane	ND		0.10	0.10
Bromomethane	ND		0.10	0.10
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	116		80 - 120	
Ethylbenzene-d10	113		80 - 120	
Fluorobenzene (Surr)	108		80 - 120	
Trifluorotoluene (Surr)	121	X	80 - 120	
Toluene-d8 (Surr)	105		80 - 120	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW5-033108-W**

Lab Sample ID: 580-9494-6  
Client Matrix: Water

Date Sampled: 03/31/2008 1610  
Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17497.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1947		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1947		

Analyte	Result (ug/L)	Qualifier	RL	RL
1,2,3-Trichloropropane	ND		0.20	0.20
Carbon tetrachloride	ND		0.10	0.10
Chloroethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.10	0.10
2-Chlorotoluene	ND		0.10	0.10
Chlorobenzene	ND		0.10	0.10
Vinyl chloride	1.5		0.020	0.020
sec-Butylbenzene	ND		0.10	0.10
Dibromomethane	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.20	0.20
m-Xylene & p-Xylene	0.20		0.20	0.20
o-Xylene	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.20	0.20
Styrene	ND		0.10	0.10
Chlorobromomethane	ND		0.10	0.10
Dichlorobromomethane	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.20	0.20
Benzene	0.33		0.10	0.10
trans-1,3-Dichloropropene	ND		0.10	0.10
1,2,3-Trichlorobenzene	ND		0.40	0.40
N-Propylbenzene	ND		0.10	0.10
4-Isopropyltoluene	ND		0.20	0.20
n-Butylbenzene	ND		0.10	0.10
1,1-Dichloropropene	ND		0.10	0.10
cis-1,2-Dichloroethene	0.21		0.10	0.10
1,1,2,2-Tetrachloroethane	ND		0.10	0.10
1,2,4-Trimethylbenzene	ND		0.10	0.10
Toluene	0.23		0.10	0.10
Naphthalene	ND		0.40	0.40
1,3,5-Trimethylbenzene	ND		0.10	0.10
1,3-Dichloropropane	ND		0.10	0.10
Chloroform	ND		0.10	0.10
4-Chlorotoluene	ND		0.20	0.20
Chlorodibromomethane	ND		0.10	0.10
Dichlorodifluoromethane	ND		0.40	0.40
1,1,2-Trichloroethane	ND		0.10	0.10
tert-Butylbenzene	ND		0.10	0.10
Chloromethane	ND		0.10	0.10
Methylene Chloride	ND		0.10	0.10
1,1-Dichloroethene	ND		0.10	0.10
Isopropylbenzene	ND		0.10	0.10
1,2-Dichloroethane	ND		0.10	0.10
Tetrachloroethene	ND		0.10	0.10
1,1,1-Trichloroethane	ND		0.10	0.10

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

Client Sample ID: MW5-033108-W

Lab Sample ID: 580-9494-6

Date Sampled: 03/31/2008 1610

Client Matrix: Water

Date Received: 04/02/2008 1050

## 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 580-30032 Instrument ID: SEA036  
Preparation: 5030B Lab File ID: HP17497.D  
Dilution: 1.0 Initial Weight/Volume: 25 mL  
Date Analyzed: 04/07/2008 1947 Final Weight/Volume: 25 mL  
Date Prepared: 04/07/2008 1947

Analyte	Result (ug/L)	Qualifier	RL	RL
2,2-Dichloropropane	ND		0.10	0.10
Bromoform	ND		0.10	0.10
1,2-Dibromo-3-Chloropropane	ND		0.20	0.20
Trichlorofluoromethane	7.5		0.10	0.10
Trichloroethene	1.4		0.10	0.10
Bromobenzene	ND		0.10	0.10
1,2-Dichloropropane	ND		0.10	0.10
1,1,1,2-Tetrachloroethane	ND		0.10	0.10
Ethylbenzene	ND		0.10	0.10
trans-1,2-Dichloroethene	ND		0.10	0.10
Hexachlorobutadiene	ND		0.20	0.20
1,1-Dichloroethane	ND		0.10	0.10
Bromomethane	ND		0.10	0.10
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	100		80 - 120	
Ethylbenzene-d10	101		80 - 120	
Fluorobenzene (Surr)	108		80 - 120	
Trifluorotoluene (Surr)	111		80 - 120	
Toluene-d8 (Surr)	96		80 - 120	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW7-033108-W**

Lab Sample ID: 580-9494-7

Date Sampled: 03/31/2008 1750

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17491.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1709		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1709		

Analyte	Result (ug/L)	Qualifier	RL	RL
1,2,3-Trichloropropane	ND		0.20	0.20
Carbon tetrachloride	ND		0.10	0.10
Chloroethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.10	0.10
2-Chlorotoluene	ND		0.10	0.10
Chlorobenzene	ND		0.10	0.10
Vinyl chloride	3.5		0.020	0.020
sec-Butylbenzene	ND		0.10	0.10
Dibromomethane	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.20	0.20
m-Xylene & p-Xylene	ND		0.20	0.20
o-Xylene	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.20	0.20
Styrene	ND		0.10	0.10
Chlorobromomethane	ND		0.10	0.10
Dichlorobromomethane	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.20	0.20
Benzene	0.34		0.10	0.10
trans-1,3-Dichloropropene	ND		0.10	0.10
1,2,3-Trichlorobenzene	ND		0.40	0.40
N-Propylbenzene	ND		0.10	0.10
4-Isopropyltoluene	ND		0.20	0.20
n-Butylbenzene	ND		0.10	0.10
1,1-Dichloropropene	ND		0.10	0.10
cis-1,2-Dichloroethene	0.50		0.10	0.10
1,1,2,2-Tetrachloroethane	ND		0.10	0.10
1,2,4-Trimethylbenzene	ND		0.10	0.10
Toluene	0.16		0.10	0.10
Naphthalene	ND		0.40	0.40
1,3,5-Trimethylbenzene	ND		0.10	0.10
1,3-Dichloropropane	ND		0.10	0.10
Chloroform	ND		0.10	0.10
4-Chlorotoluene	ND		0.20	0.20
Chlorodibromomethane	ND		0.10	0.10
Dichlorodifluoromethane	ND		0.40	0.40
1,1,2-Trichloroethane	ND		0.10	0.10
tert-Butylbenzene	ND		0.10	0.10
Chloromethane	ND		0.10	0.10
Methylene Chloride	ND		0.10	0.10
1,1-Dichloroethene	ND		0.10	0.10
Isopropylbenzene	ND		0.10	0.10
1,2-Dichloroethane	ND		0.10	0.10
Tetrachloroethene	ND		0.10	0.10
1,1,1-Trichloroethane	ND		0.10	0.10

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW7-033108-W**

Lab Sample ID: 580-9494-7

Date Sampled: 03/31/2008 1750

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17491.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1709		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1709		

Analyte	Result (ug/L)	Qualifier	RL	RL
2,2-Dichloropropane	ND		0.10	0.10
Bromoform	ND		0.10	0.10
1,2-Dibromo-3-Chloropropane	ND		0.20	0.20
Trichlorofluoromethane	ND		0.10	0.10
Trichloroethene	0.22		0.10	0.10
Bromobenzene	ND		0.10	0.10
1,2-Dichloropropane	ND		0.10	0.10
1,1,1,2-Tetrachloroethane	ND		0.10	0.10
Ethylbenzene	ND		0.10	0.10
trans-1,2-Dichloroethene	ND		0.10	0.10
Hexachlorobutadiene	ND		0.20	0.20
1,1-Dichloroethane	ND		0.10	0.10
Bromomethane	ND		0.10	0.10
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	106		80 - 120	
Ethylbenzene-d10	107		80 - 120	
Fluorobenzene (Surr)	107		80 - 120	
Trifluorotoluene (Surr)	119		80 - 120	
Toluene-d8 (Surr)	102		80 - 120	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW8-040108-W**

Lab Sample ID: 580-9494-8

Date Sampled: 04/01/2008 1305

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17492.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1735		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1735		

Analyte	Result (ug/L)	Qualifier	RL	RL
1,2,3-Trichloropropane	ND		0.20	0.20
Carbon tetrachloride	ND		0.10	0.10
Chloroethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.10	0.10
2-Chlorotoluene	ND		0.10	0.10
Chlorobenzene	ND		0.10	0.10
Vinyl chloride	ND		0.020	0.020
sec-Butylbenzene	ND		0.10	0.10
Dibromomethane	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.20	0.20
m-Xylene & p-Xylene	ND		0.20	0.20
o-Xylene	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.20	0.20
Styrene	ND		0.10	0.10
Chlorobromomethane	ND		0.10	0.10
Dichlorobromomethane	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.20	0.20
Benzene	ND		0.10	0.10
trans-1,3-Dichloropropene	ND		0.10	0.10
1,2,3-Trichlorobenzene	ND		0.40	0.40
N-Propylbenzene	ND		0.10	0.10
4-Isopropyltoluene	ND		0.20	0.20
n-Butylbenzene	ND		0.10	0.10
1,1-Dichloropropene	ND		0.10	0.10
cis-1,2-Dichloroethene	ND		0.10	0.10
1,1,2,2-Tetrachloroethane	ND		0.10	0.10
1,2,4-Trimethylbenzene	ND		0.10	0.10
Toluene	0.15		0.10	0.10
Naphthalene	ND		0.40	0.40
1,3,5-Trimethylbenzene	ND		0.10	0.10
1,3-Dichloropropane	ND		0.10	0.10
Chloroform	ND		0.10	0.10
4-Chlorotoluene	ND		0.20	0.20
Chlorodibromomethane	ND		0.10	0.10
Dichlorodifluoromethane	ND		0.40	0.40
1,1,2-Trichloroethane	ND		0.10	0.10
tert-Butylbenzene	ND		0.10	0.10
Chloromethane	ND		0.10	0.10
Methylene Chloride	ND		0.10	0.10
1,1-Dichloroethene	ND		0.10	0.10
Isopropylbenzene	ND		0.10	0.10
1,2-Dichloroethane	ND		0.10	0.10
Tetrachloroethene	ND		0.10	0.10
1,1,1-Trichloroethane	ND		0.10	0.10

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW8-040108-W**

Lab Sample ID: 580-9494-8

Date Sampled: 04/01/2008 1305

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: HP17492.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1735		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1735		

Analyte	Result (ug/L)	Qualifier	RL	RL
2,2-Dichloropropane	ND		0.10	0.10
Bromoform	ND		0.10	0.10
1,2-Dibromo-3-Chloropropane	ND		0.20	0.20
Trichlorofluoromethane	ND		0.10	0.10
Trichloroethene	ND		0.10	0.10
Bromobenzene	ND		0.10	0.10
1,2-Dichloropropane	ND		0.10	0.10
1,1,1,2-Tetrachloroethane	ND		0.10	0.10
Ethylbenzene	ND		0.10	0.10
trans-1,2-Dichloroethene	ND		0.10	0.10
Hexachlorobutadiene	ND		0.20	0.20
1,1-Dichloroethane	ND		0.10	0.10
Bromomethane	ND		0.10	0.10
Surrogate	%Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	105		80 - 120	
Ethylbenzene-d10	100		80 - 120	
Fluorobenzene (Surr)	107		80 - 120	
Trifluorotoluene (Surr)	117		80 - 120	
Toluene-d8 (Surr)	96		80 - 120	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW9-040108-W**

Lab Sample ID: 580-9494-9

Date Sampled: 04/01/2008 1320

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: hp17493.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1802		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1802		

Analyte	Result (ug/L)	Qualifier	RL	RL
1,2,3-Trichloropropane	ND		0.20	0.20
Carbon tetrachloride	ND		0.10	0.10
Chloroethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.10	0.10
2-Chlorotoluene	ND		0.10	0.10
Chlorobenzene	ND		0.10	0.10
Vinyl chloride	0.80		0.020	0.020
sec-Butylbenzene	ND		0.10	0.10
Dibromomethane	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.20	0.20
m-Xylene & p-Xylene	ND		0.20	0.20
o-Xylene	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.20	0.20
Styrene	ND		0.10	0.10
Chlorobromomethane	ND		0.10	0.10
Dichlorobromomethane	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.20	0.20
Benzene	0.12		0.10	0.10
trans-1,3-Dichloropropene	ND		0.10	0.10
1,2,3-Trichlorobenzene	ND		0.40	0.40
N-Propylbenzene	ND		0.10	0.10
4-Isopropyltoluene	ND		0.20	0.20
n-Butylbenzene	ND		0.10	0.10
1,1-Dichloropropene	ND		0.10	0.10
cis-1,2-Dichloroethene	ND		0.10	0.10
1,1,2,2-Tetrachloroethane	ND		0.10	0.10
1,2,4-Trimethylbenzene	ND		0.10	0.10
Toluene	0.15		0.10	0.10
Naphthalene	ND		0.40	0.40
1,3,5-Trimethylbenzene	ND		0.10	0.10
1,3-Dichloropropane	ND		0.10	0.10
Chloroform	ND		0.10	0.10
4-Chlorotoluene	ND		0.20	0.20
Chlorodibromomethane	ND		0.10	0.10
Dichlorodifluoromethane	ND		0.40	0.40
1,1,2-Trichloroethane	ND		0.10	0.10
tert-Butylbenzene	ND		0.10	0.10
Chloromethane	ND		0.10	0.10
Methylene Chloride	ND		0.10	0.10
1,1-Dichloroethene	ND		0.10	0.10
Isopropylbenzene	ND		0.10	0.10
1,2-Dichloroethane	ND		0.10	0.10
Tetrachloroethene	ND		0.10	0.10
1,1,1-Trichloroethane	ND		0.10	0.10

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW9-040108-W**

Lab Sample ID: 580-9494-9

Date Sampled: 04/01/2008 1320

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8260B Volatile Organic Compounds by GC/MS (Low Level)

Method:	8260B	Analysis Batch: 580-30032	Instrument ID: SEA036
Preparation:	5030B		Lab File ID: hp17493.D
Dilution:	1.0		Initial Weight/Volume: 25 mL
Date Analyzed:	04/07/2008 1802		Final Weight/Volume: 25 mL
Date Prepared:	04/07/2008 1802		

Analyte	Result (ug/L)	Qualifier	RL	RL
2,2-Dichloropropane	ND		0.10	0.10
Bromoform	ND		0.10	0.10
1,2-Dibromo-3-Chloropropane	ND		0.20	0.20
Trichlorofluoromethane	0.18		0.10	0.10
Trichloroethene	ND		0.10	0.10
Bromobenzene	ND		0.10	0.10
1,2-Dichloropropane	ND		0.10	0.10
1,1,1,2-Tetrachloroethane	ND		0.10	0.10
Ethylbenzene	ND		0.10	0.10
trans-1,2-Dichloroethene	ND		0.10	0.10
Hexachlorobutadiene	ND		0.20	0.20
1,1-Dichloroethane	ND		0.10	0.10
Bromomethane	ND		0.10	0.10
Surrogate	%Rec	Acceptance Limits		
4-Bromofluorobenzene (Surr)	104	80 - 120		
Ethylbenzene-d10	103	80 - 120		
Fluorobenzene (Surr)	109	80 - 120		
Trifluorotoluene (Surr)	119	80 - 120		
Toluene-d8 (Surr)	97	80 - 120		

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW6-033108-W**

Lab Sample ID: 580-9494-1

Date Sampled: 03/31/2008 1620

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015015.D
Dilution:	1.0		Initial Weight/Volume: 1050 mL
Date Analyzed:	04/09/2008 0212		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Acenaphthene	ND		0.048	0.048
Acenaphthylene	ND		0.038	0.038
Anthracene	ND		0.019	0.019
Benzo[a]anthracene	ND		0.029	0.029
Benzo[a]pyrene	ND		0.019	0.019
Benzo[b]fluoranthene	ND		0.038	0.038
Benzofluoranthene	ND		0.038	0.038
Benzo[g,h,i]perylene	ND		0.029	0.029
Benzoic acid	1.2		0.95	0.95
Benzo[k]fluoranthene	ND		0.029	0.029
Benzyl alcohol	ND		0.19	0.19
Bis(2-chloroethoxy)methane	ND		0.19	0.19
Bis(2-chloroethyl)ether	ND		0.19	0.19
Bis(2-ethylhexyl) phthalate	ND		1.4	1.4
4-Bromophenyl phenyl ether	ND		0.19	0.19
Butyl benzyl phthalate	ND		0.29	0.29
Carbazole	ND		0.19	0.19
4-Chloroaniline	ND		0.19	0.19
4-Chloro-3-methylphenol	ND		0.19	0.19
2-Chloronaphthalene	ND		0.029	0.029
2-Chlorophenol	ND		0.19	0.19
4-Chlorophenyl phenyl ether	ND		0.19	0.19
Chrysene	ND		0.019	0.019
Dibenz(a,h)anthracene	ND		0.029	0.029
Dibenzofuran	ND		0.19	0.19
1,2-Dichlorobenzene	ND		0.19	0.19
1,3-Dichlorobenzene	ND		0.19	0.19
1,4-Dichlorobenzene	ND		0.19	0.19
3,3'-Dichlorobenzidine	ND		0.95	0.95
2,4-Dichlorophenol	ND		0.19	0.19
Diethyl phthalate	ND		0.19	0.19
2,4-Dimethylphenol	ND	*	0.95	0.95
Dimethyl phthalate	ND		0.19	0.19
Di-n-butyl phthalate	ND		0.19	0.19
4,6-Dinitro-2-methylphenol	ND		1.9	1.9
2,4-Dinitrophenol	ND		2.4	2.4
2,4-Dinitrotoluene	ND		0.19	0.19
2,6-Dinitrotoluene	ND		0.19	0.19
Di-n-octyl phthalate	ND		0.19	0.19
Fluoranthene	ND		0.024	0.024
Fluorene	ND		0.029	0.029
Hexachlorobenzene	ND		0.19	0.19
Hexachlorobutadiene	ND		0.29	0.29
Hexachlorocyclopentadiene	ND		0.95	0.95

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW6-033108-W**

Lab Sample ID: 580-9494-1

Date Sampled: 03/31/2008 1620

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015015.D
Dilution:	1.0		Initial Weight/Volume: 1050 mL
Date Analyzed:	04/09/2008 0212		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Hexachloroethane	ND		0.29	0.29
Indeno[1,2,3-cd]pyrene	ND		0.029	0.029
Isophorone	ND		0.19	0.19
1-Methylnaphthalene	ND		0.029	0.029
2-Methylnaphthalene	ND		0.095	0.095
2-Methylphenol	ND		0.19	0.19
3 & 4 Methylphenol	ND		0.38	0.38
Naphthalene	ND		0.19	0.19
2-Nitroaniline	ND		0.19	0.19
3-Nitroaniline	ND	*	0.19	0.19
4-Nitroaniline	ND		0.29	0.29
Nitrobenzene	ND		0.19	0.19
2-Nitrophenol	ND		0.19	0.19
4-Nitrophenol	ND		0.95	0.95
N-Nitrosodi-n-propylamine	ND		0.19	0.19
N-Nitrosodiphenylamine	ND		0.19	0.19
Pentachlorophenol	ND		0.33	0.33
Phenanthrene	ND		0.038	0.038
Phenol	ND		0.29	0.29
Pyrene	ND		0.029	0.029
1,2,4-Trichlorobenzene	ND		0.19	0.19
2,4,5-Trichlorophenol	ND		0.19	0.19
2,4,6-Trichlorophenol	ND		0.29	0.29
2,2'-oxybis[1-chloropropane]	ND		0.19	0.19

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	62	35 - 143
2-Fluorophenol	26	10 - 120
Nitrobenzene-d5	67	34 - 146
Phenol-d5	18	10 - 102
Terphenyl-d14	84	35 - 166
2,4,6-Tribromophenol	75	29 - 151

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW2-033108-W**

Lab Sample ID: 580-9494-2  
Client Matrix: Water

Date Sampled: 03/31/2008 1520  
Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015016.D
Dilution:	1.0		Initial Weight/Volume: 1040 mL
Date Analyzed:	04/09/2008 0233		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Acenaphthene	ND		0.048	0.048
Acenaphthylene	ND		0.038	0.038
Anthracene	ND		0.019	0.019
Benzo[a]anthracene	ND		0.029	0.029
Benzo[a]pyrene	ND		0.019	0.019
Benzo[b]fluoranthene	ND		0.038	0.038
Benzofluoranthene	ND		0.038	0.038
Benzo[g,h,i]perylene	ND		0.029	0.029
Benzoic acid	1.2		0.96	0.96
Benzo[k]fluoranthene	ND		0.029	0.029
Benzyl alcohol	ND		0.19	0.19
Bis(2-chloroethoxy)methane	ND		0.19	0.19
Bis(2-chloroethyl)ether	ND		0.19	0.19
Bis(2-ethylhexyl) phthalate	ND		1.4	1.4
4-Bromophenyl phenyl ether	ND		0.19	0.19
Butyl benzyl phthalate	ND		0.29	0.29
Carbazole	ND		0.19	0.19
4-Chloroaniline	ND		0.19	0.19
4-Chloro-3-methylphenol	ND		0.19	0.19
2-Chloronaphthalene	ND		0.029	0.029
2-Chlorophenol	ND		0.19	0.19
4-Chlorophenyl phenyl ether	ND		0.19	0.19
Chrysene	ND		0.019	0.019
Dibenz(a,h)anthracene	ND		0.029	0.029
Dibenzofuran	ND		0.19	0.19
1,2-Dichlorobenzene	ND		0.19	0.19
1,3-Dichlorobenzene	ND		0.19	0.19
1,4-Dichlorobenzene	ND		0.19	0.19
3,3'-Dichlorobenzidine	ND		0.96	0.96
2,4-Dichlorophenol	ND		0.19	0.19
Diethyl phthalate	ND		0.19	0.19
2,4-Dimethylphenol	ND	*	0.96	0.96
Dimethyl phthalate	ND		0.19	0.19
Di-n-butyl phthalate	ND		0.19	0.19
4,6-Dinitro-2-methylphenol	ND		1.9	1.9
2,4-Dinitrophenol	ND		2.4	2.4
2,4-Dinitrotoluene	ND		0.19	0.19
2,6-Dinitrotoluene	ND		0.19	0.19
Di-n-octyl phthalate	ND		0.19	0.19
Fluoranthene	ND		0.024	0.024
Fluorene	ND		0.029	0.029
Hexachlorobenzene	ND		0.19	0.19
Hexachlorobutadiene	ND		0.29	0.29
Hexachlorocyclopentadiene	ND		0.96	0.96

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW2-033108-W**

Lab Sample ID: 580-9494-2

Date Sampled: 03/31/2008 1520

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015016.D
Dilution:	1.0		Initial Weight/Volume: 1040 mL
Date Analyzed:	04/09/2008 0233		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Hexachloroethane	ND		0.29	0.29
Indeno[1,2,3-cd]pyrene	ND		0.029	0.029
Isophorone	ND		0.19	0.19
1-Methylnaphthalene	ND		0.029	0.029
2-Methylnaphthalene	ND		0.096	0.096
2-Methylphenol	ND		0.19	0.19
3 & 4 Methylphenol	ND		0.38	0.38
Naphthalene	ND		0.19	0.19
2-Nitroaniline	ND		0.19	0.19
3-Nitroaniline	ND	*	0.19	0.19
4-Nitroaniline	ND		0.29	0.29
Nitrobenzene	ND		0.19	0.19
2-Nitrophenol	ND		0.19	0.19
4-Nitrophenol	ND		0.96	0.96
N-Nitrosodi-n-propylamine	ND		0.19	0.19
N-Nitrosodiphenylamine	ND		0.19	0.19
Pentachlorophenol	ND		0.34	0.34
Phenanthrene	ND		0.038	0.038
Phenol	ND		0.29	0.29
Pyrene	ND		0.029	0.029
1,2,4-Trichlorobenzene	ND		0.19	0.19
2,4,5-Trichlorophenol	ND		0.19	0.19
2,4,6-Trichlorophenol	ND		0.29	0.29
2,2'-oxybis[1-chloropropane]	ND		0.19	0.19

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	61	35 - 143
2-Fluorophenol	25	10 - 120
Nitrobenzene-d5	65	34 - 146
Phenol-d5	18	10 - 102
Terphenyl-d14	87	35 - 166
2,4,6-Tribromophenol	72	29 - 151

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW3-033108-W**

Lab Sample ID: 580-9494-3

Date Sampled: 03/31/2008 1335

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015017.D
Dilution:	1.0		Initial Weight/Volume: 1060 mL
Date Analyzed:	04/09/2008 0253		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Acenaphthene	ND		0.047	0.047
Acenaphthylene	ND		0.038	0.038
Anthracene	ND		0.019	0.019
Benzo[a]anthracene	ND		0.028	0.028
Benzo[a]pyrene	ND		0.019	0.019
Benzo[b]fluoranthene	ND		0.038	0.038
Benzofluoranthene	ND		0.038	0.038
Benzo[g,h,i]perylene	ND		0.028	0.028
Benzoic acid	1.2		0.94	0.94
Benzo[k]fluoranthene	ND		0.028	0.028
Benzyl alcohol	ND		0.19	0.19
Bis(2-chloroethoxy)methane	ND		0.19	0.19
Bis(2-chloroethyl)ether	ND		0.19	0.19
Bis(2-ethylhexyl) phthalate	ND		1.4	1.4
4-Bromophenyl phenyl ether	ND		0.19	0.19
Butyl benzyl phthalate	ND		0.28	0.28
Carbazole	ND		0.19	0.19
4-Chloroaniline	ND		0.19	0.19
4-Chloro-3-methylphenol	ND		0.19	0.19
2-Chloronaphthalene	ND		0.028	0.028
2-Chlorophenol	ND		0.19	0.19
4-Chlorophenyl phenyl ether	ND		0.19	0.19
Chrysene	ND		0.019	0.019
Dibenz(a,h)anthracene	ND		0.028	0.028
Dibenzofuran	ND		0.19	0.19
1,2-Dichlorobenzene	ND		0.19	0.19
1,3-Dichlorobenzene	ND		0.19	0.19
1,4-Dichlorobenzene	ND		0.19	0.19
3,3'-Dichlorobenzidine	ND		0.94	0.94
2,4-Dichlorophenol	ND		0.19	0.19
Diethyl phthalate	ND		0.19	0.19
2,4-Dimethylphenol	ND	*	0.94	0.94
Dimethyl phthalate	ND		0.19	0.19
Di-n-butyl phthalate	ND		0.19	0.19
4,6-Dinitro-2-methylphenol	ND		1.9	1.9
2,4-Dinitrophenol	ND		2.4	2.4
2,4-Dinitrotoluene	ND		0.19	0.19
2,6-Dinitrotoluene	ND		0.19	0.19
Di-n-octyl phthalate	ND		0.19	0.19
Fluoranthene	ND		0.024	0.024
Fluorene	ND		0.028	0.028
Hexachlorobenzene	ND		0.19	0.19
Hexachlorobutadiene	ND		0.28	0.28
Hexachlorocyclopentadiene	ND		0.94	0.94

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW3-033108-W**

Lab Sample ID: 580-9494-3

Date Sampled: 03/31/2008 1335

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015017.D
Dilution:	1.0		Initial Weight/Volume: 1060 mL
Date Analyzed:	04/09/2008 0253		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Hexachloroethane	ND		0.28	0.28
Indeno[1,2,3-cd]pyrene	ND		0.028	0.028
Isophorone	ND		0.19	0.19
1-Methylnaphthalene	ND		0.028	0.028
2-Methylnaphthalene	ND		0.094	0.094
2-Methylphenol	ND		0.19	0.19
3 & 4 Methylphenol	ND		0.38	0.38
Naphthalene	ND		0.19	0.19
2-Nitroaniline	ND		0.19	0.19
3-Nitroaniline	ND	*	0.19	0.19
4-Nitroaniline	ND		0.28	0.28
Nitrobenzene	ND		0.19	0.19
2-Nitrophenol	ND		0.19	0.19
4-Nitrophenol	ND		0.94	0.94
N-Nitrosodi-n-propylamine	ND		0.19	0.19
N-Nitrosodiphenylamine	ND		0.19	0.19
Pentachlorophenol	ND		0.33	0.33
Phenanthrene	ND		0.038	0.038
Phenol	ND		0.28	0.28
Pyrene	ND		0.028	0.028
1,2,4-Trichlorobenzene	ND		0.19	0.19
2,4,5-Trichlorophenol	ND		0.19	0.19
2,4,6-Trichlorophenol	ND		0.28	0.28
2,2'-oxybis[1-chloropropane]	ND		0.19	0.19

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	58	35 - 143
2-Fluorophenol	26	10 - 120
Nitrobenzene-d5	64	34 - 146
Phenol-d5	18	10 - 102
Terphenyl-d14	83	35 - 166
2,4,6-Tribromophenol	71	29 - 151



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW1-033108-W**

Lab Sample ID: 580-9494-4  
Client Matrix: Water

Date Sampled: 03/31/2008 1315  
Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015018.D
Dilution:	1.0		Initial Weight/Volume: 1020 mL
Date Analyzed:	04/09/2008 0314		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Acenaphthene	ND		0.049	0.049
Acenaphthylene	ND		0.039	0.039
Anthracene	ND		0.020	0.020
Benzo[a]anthracene	ND		0.029	0.029
Benzo[a]pyrene	0.044		0.020	0.020
Benzo[b]fluoranthene	ND		0.039	0.039
Benzofluoranthene	ND		0.039	0.039
Benzo[g,h,i]perylene	ND		0.029	0.029
Benzoic acid	ND		0.98	0.98
Benzo[k]fluoranthene	ND		0.029	0.029
Benzyl alcohol	ND		0.20	0.20
Bis(2-chloroethoxy)methane	ND		0.20	0.20
Bis(2-chloroethyl)ether	ND		0.20	0.20
Bis(2-ethylhexyl) phthalate	ND		1.5	1.5
4-Bromophenyl phenyl ether	ND		0.20	0.20
Butyl benzyl phthalate	ND		0.29	0.29
Carbazole	ND		0.20	0.20
4-Chloroaniline	ND		0.20	0.20
4-Chloro-3-methylphenol	ND		0.20	0.20
2-Chloronaphthalene	ND		0.029	0.029
2-Chlorophenol	ND		0.20	0.20
4-Chlorophenyl phenyl ether	ND		0.20	0.20
Chrysene	ND		0.020	0.020
Dibenz(a,h)anthracene	ND		0.029	0.029
Dibenzofuran	ND		0.20	0.20
1,2-Dichlorobenzene	ND		0.20	0.20
1,3-Dichlorobenzene	ND		0.20	0.20
1,4-Dichlorobenzene	ND		0.20	0.20
3,3'-Dichlorobenzidine	ND		0.98	0.98
2,4-Dichlorophenol	ND		0.20	0.20
Diethyl phthalate	ND		0.20	0.20
2,4-Dimethylphenol	ND	*	0.98	0.98
Dimethyl phthalate	ND		0.20	0.20
Di-n-butyl phthalate	ND		0.20	0.20
4,6-Dinitro-2-methylphenol	ND		2.0	2.0
2,4-Dinitrophenol	ND		2.5	2.5
2,4-Dinitrotoluene	ND		0.20	0.20
2,6-Dinitrotoluene	ND		0.20	0.20
Di-n-octyl phthalate	ND		0.20	0.20
Fluoranthene	ND		0.025	0.025
Fluorene	ND		0.029	0.029
Hexachlorobenzene	ND		0.20	0.20
Hexachlorobutadiene	ND		0.29	0.29
Hexachlorocyclopentadiene	ND		0.98	0.98

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW1-033108-W**

Lab Sample ID: 580-9494-4

Date Sampled: 03/31/2008 1315

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015018.D
Dilution:	1.0		Initial Weight/Volume: 1020 mL
Date Analyzed:	04/09/2008 0314		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Hexachloroethane	ND		0.29	0.29
Indeno[1,2,3-cd]pyrene	ND		0.029	0.029
Isophorone	ND		0.20	0.20
1-Methylnaphthalene	ND		0.029	0.029
2-Methylnaphthalene	ND		0.098	0.098
2-Methylphenol	ND		0.20	0.20
3 & 4 Methylphenol	ND		0.39	0.39
Naphthalene	ND		0.20	0.20
2-Nitroaniline	ND		0.20	0.20
3-Nitroaniline	ND	*	0.20	0.20
4-Nitroaniline	ND		0.29	0.29
Nitrobenzene	ND		0.20	0.20
2-Nitrophenol	ND		0.20	0.20
4-Nitrophenol	ND		0.98	0.98
N-Nitrosodi-n-propylamine	ND		0.20	0.20
N-Nitrosodiphenylamine	ND		0.20	0.20
Pentachlorophenol	ND		0.34	0.34
Phenanthrene	ND		0.039	0.039
Phenol	ND		0.29	0.29
Pyrene	ND		0.029	0.029
1,2,4-Trichlorobenzene	ND		0.20	0.20
2,4,5-Trichlorophenol	ND		0.20	0.20
2,4,6-Trichlorophenol	ND		0.29	0.29
2,2'-oxybis[1-chloropropane]	ND		0.20	0.20

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	65	35 - 143
2-Fluorophenol	27	10 - 120
Nitrobenzene-d5	69	34 - 146
Phenol-d5	16	10 - 102
Terphenyl-d14	84	35 - 166
2,4,6-Tribromophenol	76	29 - 151

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW4-033108-W**

Lab Sample ID: 580-9494-5  
 Client Matrix: Water

Date Sampled: 03/31/2008 1445  
 Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015019.D
Dilution:	1.0		Initial Weight/Volume: 1040 mL
Date Analyzed:	04/09/2008 0335		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Acenaphthene	ND		0.048	0.048
Acenaphthylene	ND		0.038	0.038
Anthracene	ND		0.019	0.019
Benzo[a]anthracene	ND		0.029	0.029
Benzo[a]pyrene	ND		0.019	0.019
Benzo[b]fluoranthene	ND		0.038	0.038
Benzofluoranthene	ND		0.038	0.038
Benzo[g,h,i]perylene	ND		0.029	0.029
Benzoic acid	1.3		0.96	0.96
Benzo[k]fluoranthene	ND		0.029	0.029
Benzyl alcohol	ND		0.19	0.19
Bis(2-chloroethoxy)methane	ND		0.19	0.19
Bis(2-chloroethyl)ether	ND		0.19	0.19
Bis(2-ethylhexyl) phthalate	ND		1.4	1.4
4-Bromophenyl phenyl ether	ND		0.19	0.19
Butyl benzyl phthalate	ND		0.29	0.29
Carbazole	ND		0.19	0.19
4-Chloroaniline	ND		0.19	0.19
4-Chloro-3-methylphenol	ND		0.19	0.19
2-Chloronaphthalene	ND		0.029	0.029
2-Chlorophenol	ND		0.19	0.19
4-Chlorophenyl phenyl ether	ND		0.19	0.19
Chrysene	ND		0.019	0.019
Dibenz(a,h)anthracene	ND		0.029	0.029
Dibenzofuran	ND		0.19	0.19
1,2-Dichlorobenzene	ND		0.19	0.19
1,3-Dichlorobenzene	ND		0.19	0.19
1,4-Dichlorobenzene	ND		0.19	0.19
3,3'-Dichlorobenzidine	ND		0.96	0.96
2,4-Dichlorophenol	ND		0.19	0.19
Diethyl phthalate	ND		0.19	0.19
2,4-Dimethylphenol	ND	*	0.96	0.96
Dimethyl phthalate	ND		0.19	0.19
Di-n-butyl phthalate	ND		0.19	0.19
4,6-Dinitro-2-methylphenol	ND		1.9	1.9
2,4-Dinitrophenol	ND		2.4	2.4
2,4-Dinitrotoluene	ND		0.19	0.19
2,6-Dinitrotoluene	ND		0.19	0.19
Di-n-octyl phthalate	ND		0.19	0.19
Fluoranthene	ND		0.024	0.024
Fluorene	ND		0.029	0.029
Hexachlorobenzene	ND		0.19	0.19
Hexachlorobutadiene	ND		0.29	0.29
Hexachlorocyclopentadiene	ND		0.96	0.96

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW4-033108-W**

Lab Sample ID: 580-9494-5

Date Sampled: 03/31/2008 1445

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015019.D
Dilution:	1.0		Initial Weight/Volume: 1040 mL
Date Analyzed:	04/09/2008 0335		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Hexachloroethane	ND		0.29	0.29
Indeno[1,2,3-cd]pyrene	ND		0.029	0.029
Isophorone	ND		0.19	0.19
1-Methylnaphthalene	ND		0.029	0.029
2-Methylnaphthalene	ND		0.096	0.096
2-Methylphenol	ND		0.19	0.19
3 & 4 Methylphenol	ND		0.38	0.38
Naphthalene	ND		0.19	0.19
2-Nitroaniline	ND		0.19	0.19
3-Nitroaniline	ND	*	0.19	0.19
4-Nitroaniline	ND		0.29	0.29
Nitrobenzene	ND		0.19	0.19
2-Nitrophenol	ND		0.19	0.19
4-Nitrophenol	ND		0.96	0.96
N-Nitrosodi-n-propylamine	ND		0.19	0.19
N-Nitrosodiphenylamine	ND		0.19	0.19
Pentachlorophenol	ND		0.34	0.34
Phenanthrene	ND		0.038	0.038
Phenol	ND		0.29	0.29
Pyrene	ND		0.029	0.029
1,2,4-Trichlorobenzene	ND		0.19	0.19
2,4,5-Trichlorophenol	ND		0.19	0.19
2,4,6-Trichlorophenol	ND		0.29	0.29
2,2'-oxybis[1-chloropropane]	ND		0.19	0.19

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	68	35 - 143
2-Fluorophenol	35	10 - 120
Nitrobenzene-d5	79	34 - 146
Phenol-d5	25	10 - 102
Terphenyl-d14	92	35 - 166
2,4,6-Tribromophenol	84	29 - 151

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW5-033108-W**

Lab Sample ID: 580-9494-6  
Client Matrix: Water

Date Sampled: 03/31/2008 1610  
Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015020.D
Dilution:	1.0		Initial Weight/Volume: 1010 mL
Date Analyzed:	04/09/2008 0356		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Acenaphthene	ND		0.050	0.050
Acenaphthylene	ND		0.040	0.040
Anthracene	ND		0.020	0.020
Benzo[a]anthracene	ND		0.030	0.030
Benzo[a]pyrene	ND		0.020	0.020
Benzo[b]fluoranthene	ND		0.040	0.040
Benzofluoranthene	ND		0.040	0.040
Benzo[g,h,i]perylene	ND		0.030	0.030
Benzoic acid	ND		0.99	0.99
Benzo[k]fluoranthene	ND		0.030	0.030
Benzyl alcohol	ND		0.20	0.20
Bis(2-chloroethoxy)methane	ND		0.20	0.20
Bis(2-chloroethyl)ether	ND		0.20	0.20
Bis(2-ethylhexyl) phthalate	ND		1.5	1.5
4-Bromophenyl phenyl ether	ND		0.20	0.20
Butyl benzyl phthalate	ND		0.30	0.30
Carbazole	ND		0.20	0.20
4-Chloroaniline	ND		0.20	0.20
4-Chloro-3-methylphenol	ND		0.20	0.20
2-Chloronaphthalene	ND		0.030	0.030
2-Chlorophenol	ND		0.20	0.20
4-Chlorophenyl phenyl ether	ND		0.20	0.20
Chrysene	ND		0.020	0.020
Dibenz(a,h)anthracene	ND		0.030	0.030
Dibenzofuran	ND		0.20	0.20
1,2-Dichlorobenzene	ND		0.20	0.20
1,3-Dichlorobenzene	ND		0.20	0.20
1,4-Dichlorobenzene	ND		0.20	0.20
3,3'-Dichlorobenzidine	ND		0.99	0.99
2,4-Dichlorophenol	ND		0.20	0.20
Diethyl phthalate	ND		0.20	0.20
2,4-Dimethylphenol	ND	*	0.99	0.99
Dimethyl phthalate	ND		0.20	0.20
Di-n-butyl phthalate	ND		0.20	0.20
4,6-Dinitro-2-methylphenol	ND		2.0	2.0
2,4-Dinitrophenol	ND		2.5	2.5
2,4-Dinitrotoluene	ND		0.20	0.20
2,6-Dinitrotoluene	ND		0.20	0.20
Di-n-octyl phthalate	ND		0.20	0.20
Fluoranthene	ND		0.025	0.025
Fluorene	ND		0.030	0.030
Hexachlorobenzene	ND		0.20	0.20
Hexachlorobutadiene	ND		0.30	0.30
Hexachlorocyclopentadiene	ND		0.99	0.99

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW5-033108-W**

Lab Sample ID: 580-9494-6  
Client Matrix: Water

Date Sampled: 03/31/2008 1610  
Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015020.D
Dilution:	1.0		Initial Weight/Volume: 1010 mL
Date Analyzed:	04/09/2008 0356		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Hexachloroethane	ND		0.30	0.30
Indeno[1,2,3-cd]pyrene	ND		0.030	0.030
Isophorone	ND		0.20	0.20
1-Methylnaphthalene	ND		0.030	0.030
2-Methylnaphthalene	ND		0.099	0.099
2-Methylphenol	ND		0.20	0.20
3 & 4 Methylphenol	ND		0.40	0.40
Naphthalene	ND		0.20	0.20
2-Nitroaniline	ND		0.20	0.20
3-Nitroaniline	ND	*	0.20	0.20
4-Nitroaniline	ND		0.30	0.30
Nitrobenzene	ND		0.20	0.20
2-Nitrophenol	ND		0.20	0.20
4-Nitrophenol	ND		0.99	0.99
N-Nitrosodi-n-propylamine	ND		0.20	0.20
N-Nitrosodiphenylamine	ND		0.20	0.20
Pentachlorophenol	ND		0.35	0.35
Phenanthrene	ND		0.040	0.040
Phenol	ND		0.30	0.30
Pyrene	ND		0.030	0.030
1,2,4-Trichlorobenzene	ND		0.20	0.20
2,4,5-Trichlorophenol	ND		0.20	0.20
2,4,6-Trichlorophenol	ND		0.30	0.30
2,2'-oxybis[1-chloropropane]	ND		0.20	0.20

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	55	35 - 143
2-Fluorophenol	26	10 - 120
Nitrobenzene-d5	56	34 - 146
Phenol-d5	19	10 - 102
Terphenyl-d14	73	35 - 166
2,4,6-Tribromophenol	72	29 - 151

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW7-033108-W**

Lab Sample ID: 580-9494-7

Date Sampled: 03/31/2008 1750

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015021.D
Dilution:	1.0		Initial Weight/Volume: 1040 mL
Date Analyzed:	04/09/2008 0416		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Acenaphthene	ND		0.048	0.048
Acenaphthylene	ND		0.038	0.038
Anthracene	ND		0.019	0.019
Benzo[a]anthracene	ND		0.029	0.029
Benzo[a]pyrene	ND		0.019	0.019
Benzo[b]fluoranthene	ND		0.038	0.038
Benzofluoranthene	ND		0.038	0.038
Benzo[g,h,i]perylene	ND		0.029	0.029
Benzoic acid	1.2		0.96	0.96
Benzo[k]fluoranthene	ND		0.029	0.029
Benzyl alcohol	ND		0.19	0.19
Bis(2-chloroethoxy)methane	ND		0.19	0.19
Bis(2-chloroethyl)ether	ND		0.19	0.19
Bis(2-ethylhexyl) phthalate	ND		1.4	1.4
4-Bromophenyl phenyl ether	ND		0.19	0.19
Butyl benzyl phthalate	ND		0.29	0.29
Carbazole	ND		0.19	0.19
4-Chloroaniline	ND		0.19	0.19
4-Chloro-3-methylphenol	ND		0.19	0.19
2-Chloronaphthalene	ND		0.029	0.029
2-Chlorophenol	ND		0.19	0.19
4-Chlorophenyl phenyl ether	ND		0.19	0.19
Chrysene	ND		0.019	0.019
Dibenz(a,h)anthracene	ND		0.029	0.029
Dibenzofuran	ND		0.19	0.19
1,2-Dichlorobenzene	ND		0.19	0.19
1,3-Dichlorobenzene	ND		0.19	0.19
1,4-Dichlorobenzene	ND		0.19	0.19
3,3'-Dichlorobenzidine	ND		0.96	0.96
2,4-Dichlorophenol	ND		0.19	0.19
Diethyl phthalate	ND		0.19	0.19
2,4-Dimethylphenol	ND	*	0.96	0.96
Dimethyl phthalate	ND		0.19	0.19
Di-n-butyl phthalate	ND		0.19	0.19
4,6-Dinitro-2-methylphenol	ND		1.9	1.9
2,4-Dinitrophenol	ND		2.4	2.4
2,4-Dinitrotoluene	ND		0.19	0.19
2,6-Dinitrotoluene	ND		0.19	0.19
Di-n-octyl phthalate	ND		0.19	0.19
Fluoranthene	ND		0.024	0.024
Fluorene	ND		0.029	0.029
Hexachlorobenzene	ND		0.19	0.19
Hexachlorobutadiene	ND		0.29	0.29
Hexachlorocyclopentadiene	ND		0.96	0.96

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW7-033108-W**

Lab Sample ID: 580-9494-7

Date Sampled: 03/31/2008 1750

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015021.D
Dilution:	1.0		Initial Weight/Volume: 1040 mL
Date Analyzed:	04/09/2008 0416		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Hexachloroethane	ND		0.29	0.29
Indeno[1,2,3-cd]pyrene	ND		0.029	0.029
Isophorone	ND		0.19	0.19
1-Methylnaphthalene	ND		0.029	0.029
2-Methylnaphthalene	ND		0.096	0.096
2-Methylphenol	ND		0.19	0.19
3 & 4 Methylphenol	ND		0.38	0.38
Naphthalene	ND		0.19	0.19
2-Nitroaniline	ND		0.19	0.19
3-Nitroaniline	ND	*	0.19	0.19
4-Nitroaniline	ND		0.29	0.29
Nitrobenzene	ND		0.19	0.19
2-Nitrophenol	ND		0.19	0.19
4-Nitrophenol	ND		0.96	0.96
N-Nitrosodi-n-propylamine	ND		0.19	0.19
N-Nitrosodiphenylamine	ND		0.19	0.19
Pentachlorophenol	ND		0.34	0.34
Phenanthrene	ND		0.038	0.038
Phenol	ND		0.29	0.29
Pyrene	ND		0.029	0.029
1,2,4-Trichlorobenzene	ND		0.19	0.19
2,4,5-Trichlorophenol	ND		0.19	0.19
2,4,6-Trichlorophenol	ND		0.29	0.29
2,2'-oxybis[1-chloropropane]	ND		0.19	0.19

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	66	35 - 143
2-Fluorophenol	21	10 - 120
Nitrobenzene-d5	63	34 - 146
Phenol-d5	17	10 - 102
Terphenyl-d14	82	35 - 166
2,4,6-Tribromophenol	39	29 - 151



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW8-040108-W**

Lab Sample ID: 580-9494-8

Date Sampled: 04/01/2008 1305

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015022.D
Dilution:	1.0		Initial Weight/Volume: 1020 mL
Date Analyzed:	04/09/2008 0437		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Acenaphthene	ND		0.049	0.049
Acenaphthylene	ND		0.039	0.039
Anthracene	ND		0.020	0.020
Benzo[a]anthracene	ND		0.029	0.029
Benzo[a]pyrene	ND		0.020	0.020
Benzo[b]fluoranthene	ND		0.039	0.039
Benzofluoranthene	ND		0.039	0.039
Benzo[g,h,i]perylene	ND		0.029	0.029
Benzoic acid	ND		0.98	0.98
Benzo[k]fluoranthene	ND		0.029	0.029
Benzyl alcohol	ND		0.20	0.20
Bis(2-chloroethoxy)methane	ND		0.20	0.20
Bis(2-chloroethyl)ether	ND		0.20	0.20
Bis(2-ethylhexyl) phthalate	ND		1.5	1.5
4-Bromophenyl phenyl ether	ND		0.20	0.20
Butyl benzyl phthalate	ND		0.29	0.29
Carbazole	ND		0.20	0.20
4-Chloroaniline	ND		0.20	0.20
4-Chloro-3-methylphenol	ND		0.20	0.20
2-Chloronaphthalene	ND		0.029	0.029
2-Chlorophenol	ND		0.20	0.20
4-Chlorophenyl phenyl ether	ND		0.20	0.20
Chrysene	ND		0.020	0.020
Dibenz(a,h)anthracene	ND		0.029	0.029
Dibenzofuran	ND		0.20	0.20
1,2-Dichlorobenzene	ND		0.20	0.20
1,3-Dichlorobenzene	ND		0.20	0.20
1,4-Dichlorobenzene	ND		0.20	0.20
3,3'-Dichlorobenzidine	ND		0.98	0.98
2,4-Dichlorophenol	ND		0.20	0.20
Diethyl phthalate	ND		0.20	0.20
2,4-Dimethylphenol	ND	*	0.98	0.98
Dimethyl phthalate	ND		0.20	0.20
Di-n-butyl phthalate	ND		0.20	0.20
4,6-Dinitro-2-methylphenol	ND		2.0	2.0
2,4-Dinitrophenol	ND		2.5	2.5
2,4-Dinitrotoluene	ND		0.20	0.20
2,6-Dinitrotoluene	ND		0.20	0.20
Di-n-octyl phthalate	ND		0.20	0.20
Fluoranthene	ND		0.025	0.025
Fluorene	ND		0.029	0.029
Hexachlorobenzene	ND		0.20	0.20
Hexachlorobutadiene	ND		0.29	0.29
Hexachlorocyclopentadiene	ND		0.98	0.98

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW8-040108-W**

Lab Sample ID: 580-9494-8

Date Sampled: 04/01/2008 1305

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015022.D
Dilution:	1.0		Initial Weight/Volume: 1020 mL
Date Analyzed:	04/09/2008 0437		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Hexachloroethane	ND		0.29	0.29
Indeno[1,2,3-cd]pyrene	ND		0.029	0.029
Isophorone	ND		0.20	0.20
1-Methylnaphthalene	ND		0.029	0.029
2-Methylnaphthalene	ND		0.098	0.098
2-Methylphenol	ND		0.20	0.20
3 & 4 Methylphenol	ND		0.39	0.39
Naphthalene	ND		0.20	0.20
2-Nitroaniline	ND		0.20	0.20
3-Nitroaniline	ND	*	0.20	0.20
4-Nitroaniline	ND		0.29	0.29
Nitrobenzene	ND		0.20	0.20
2-Nitrophenol	ND		0.20	0.20
4-Nitrophenol	ND		0.98	0.98
N-Nitrosodi-n-propylamine	ND		0.20	0.20
N-Nitrosodiphenylamine	ND		0.20	0.20
Pentachlorophenol	ND		0.34	0.34
Phenanthrene	ND		0.039	0.039
Phenol	ND		0.29	0.29
Pyrene	ND		0.029	0.029
1,2,4-Trichlorobenzene	ND		0.20	0.20
2,4,5-Trichlorophenol	ND		0.20	0.20
2,4,6-Trichlorophenol	ND		0.29	0.29
2,2'-oxybis[1-chloropropane]	ND		0.20	0.20

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	62	35 - 143
2-Fluorophenol	29	10 - 120
Nitrobenzene-d5	63	34 - 146
Phenol-d5	20	10 - 102
Terphenyl-d14	75	35 - 166
2,4,6-Tribromophenol	69	29 - 151

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW9-040108-W**

Lab Sample ID: 580-9494-9

Date Sampled: 04/01/2008 1320

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015023.D
Dilution:	1.0		Initial Weight/Volume: 1020 mL
Date Analyzed:	04/09/2008 0458		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Acenaphthene	ND		0.049	0.049
Acenaphthylene	ND		0.039	0.039
Anthracene	ND		0.020	0.020
Benzo[a]anthracene	ND		0.029	0.029
Benzo[a]pyrene	ND		0.020	0.020
Benzo[b]fluoranthene	ND		0.039	0.039
Benzofluoranthene	ND		0.039	0.039
Benzo[g,h,i]perylene	ND		0.029	0.029
Benzoic acid	ND		0.98	0.98
Benzo[k]fluoranthene	ND		0.029	0.029
Benzyl alcohol	ND		0.20	0.20
Bis(2-chloroethoxy)methane	ND		0.20	0.20
Bis(2-chloroethyl)ether	ND		0.20	0.20
Bis(2-ethylhexyl) phthalate	ND		1.5	1.5
4-Bromophenyl phenyl ether	ND		0.20	0.20
Butyl benzyl phthalate	ND		0.29	0.29
Carbazole	ND		0.20	0.20
4-Chloroaniline	ND		0.20	0.20
4-Chloro-3-methylphenol	ND		0.20	0.20
2-Chloronaphthalene	ND		0.029	0.029
2-Chlorophenol	ND		0.20	0.20
4-Chlorophenyl phenyl ether	ND		0.20	0.20
Chrysene	ND		0.020	0.020
Dibenz(a,h)anthracene	ND		0.029	0.029
Dibenzofuran	ND		0.20	0.20
1,2-Dichlorobenzene	ND		0.20	0.20
1,3-Dichlorobenzene	ND		0.20	0.20
1,4-Dichlorobenzene	ND		0.20	0.20
3,3'-Dichlorobenzidine	ND		0.98	0.98
2,4-Dichlorophenol	ND		0.20	0.20
Diethyl phthalate	ND		0.20	0.20
2,4-Dimethylphenol	ND	*	0.98	0.98
Dimethyl phthalate	ND		0.20	0.20
Di-n-butyl phthalate	ND		0.20	0.20
4,6-Dinitro-2-methylphenol	ND		2.0	2.0
2,4-Dinitrophenol	ND		2.5	2.5
2,4-Dinitrotoluene	ND		0.20	0.20
2,6-Dinitrotoluene	ND		0.20	0.20
Di-n-octyl phthalate	ND		0.20	0.20
Fluoranthene	ND		0.025	0.025
Fluorene	ND		0.029	0.029
Hexachlorobenzene	ND		0.20	0.20
Hexachlorobutadiene	ND		0.29	0.29
Hexachlorocyclopentadiene	ND		0.98	0.98

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW9-040108-W**

Lab Sample ID: 580-9494-9

Date Sampled: 04/01/2008 1320

Client Matrix: Water

Date Received: 04/02/2008 1050

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30221	Instrument ID: SEA040
Preparation:	3510C	Prep Batch: 580-29965	Lab File ID: ak015023.D
Dilution:	1.0		Initial Weight/Volume: 1020 mL
Date Analyzed:	04/09/2008 0458		Final Weight/Volume: 1 mL
Date Prepared:	04/04/2008 1002		Injection Volume: 1.0 uL

Analyte	Result (ug/L)	Qualifier	RL	RL
Hexachloroethane	ND		0.29	0.29
Indeno[1,2,3-cd]pyrene	ND		0.029	0.029
Isophorone	ND		0.20	0.20
1-Methylnaphthalene	ND		0.029	0.029
2-Methylnaphthalene	ND		0.098	0.098
2-Methylphenol	ND		0.20	0.20
3 & 4 Methylphenol	ND		0.39	0.39
Naphthalene	ND		0.20	0.20
2-Nitroaniline	ND		0.20	0.20
3-Nitroaniline	ND	*	0.20	0.20
4-Nitroaniline	ND		0.29	0.29
Nitrobenzene	ND		0.20	0.20
2-Nitrophenol	ND		0.20	0.20
4-Nitrophenol	ND		0.98	0.98
N-Nitrosodi-n-propylamine	ND		0.20	0.20
N-Nitrosodiphenylamine	ND		0.20	0.20
Pentachlorophenol	ND		0.34	0.34
Phenanthrene	ND		0.039	0.039
Phenol	ND		0.29	0.29
Pyrene	ND		0.029	0.029
1,2,4-Trichlorobenzene	ND		0.20	0.20
2,4,5-Trichlorophenol	ND		0.20	0.20
2,4,6-Trichlorophenol	ND		0.29	0.29
2,2'-oxybis[1-chloropropane]	ND		0.20	0.20

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	62	35 - 143
2-Fluorophenol	25	10 - 120
Nitrobenzene-d5	64	34 - 146
Phenol-d5	21	10 - 102
Terphenyl-d14	80	35 - 166
2,4,6-Tribromophenol	56	29 - 151

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW6-033108-W**

Lab Sample ID: 580-9494-1

Date Sampled: 03/31/2008 1620

Client Matrix: Water

Date Received: 04/02/2008 1050

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-30013

Instrument ID: SEA041

Preparation: 5030B

Lab File ID: Gx0013039.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 04/04/2008 1408

Final Weight/Volume: 5 mL

Date Prepared: 04/04/2008 1408

Injection Volume:

Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Gasoline	ND		50	50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	115	50 - 150
Ethylbenzene-d10	109	50 - 150
Fluorobenzene (Surr)	105	50 - 150
Toluene-d8 (Surr)	111	50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW2-033108-W**

Lab Sample ID: 580-9494-2

Date Sampled: 03/31/2008 1520

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-30013

Instrument ID: SEA041

Preparation: 5030B

Lab File ID: Gx0013040.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 04/04/2008 1430

Final Weight/Volume: 5 mL

Date Prepared: 04/04/2008 1430

Injection Volume:

Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Gasoline	ND		50	50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	112	50 - 150
Ethylbenzene-d10	109	50 - 150
Fluorobenzene (Surr)	106	50 - 150
Toluene-d8 (Surr)	111	50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW3-033108-W**

Lab Sample ID: 580-9494-3

Date Sampled: 03/31/2008 1335

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-30013

Instrument ID: SEA041

Preparation: 5030B

Lab File ID: Gx0013041.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 04/04/2008 1452

Final Weight/Volume: 5 mL

Date Prepared: 04/04/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Gasoline	ND		50	50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	108	50 - 150
Trifluorotoluene (Surr)	113	50 - 150
Ethylbenzene-d10	109	50 - 150
Fluorobenzene (Surr)	105	50 - 150
Toluene-d8 (Surr)	111	50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW1-033108-W**

Lab Sample ID: 580-9494-4

Date Sampled: 03/31/2008 1315

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-30013

Instrument ID: SEA041

Preparation: 5030B

Lab File ID: Gx0013042.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 04/04/2008 1513

Final Weight/Volume: 5 mL

Date Prepared: 04/04/2008 1513

Injection Volume:

Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Gasoline	ND		50	50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	110	50 - 150
Ethylbenzene-d10	109	50 - 150
Fluorobenzene (Surr)	104	50 - 150
Toluene-d8 (Surr)	111	50 - 150



# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW4-033108-W**

Lab Sample ID: 580-9494-5

Date Sampled: 03/31/2008 1445

Client Matrix: Water

Date Received: 04/02/2008 1050

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-30013

Instrument ID: SEA041

Preparation: 5030B

Lab File ID: Gx0013043.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 04/04/2008 1535

Final Weight/Volume: 5 mL

Date Prepared: 04/04/2008 1535

Injection Volume:

Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Gasoline	ND		50	50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	106	50 - 150
Trifluorotoluene (Surr)	112	50 - 150
Ethylbenzene-d10	109	50 - 150
Fluorobenzene (Surr)	105	50 - 150
Toluene-d8 (Surr)	112	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW5-033108-W**

Lab Sample ID: 580-9494-6

Date Sampled: 03/31/2008 1610

Client Matrix: Water

Date Received: 04/02/2008 1050

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-30013

Instrument ID: SEA041

Preparation: 5030B

Lab File ID: Gx0013044.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 04/04/2008 1556

Final Weight/Volume: 5 mL

Date Prepared: 04/04/2008 1556

Injection Volume:

Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Gasoline	ND		50	50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	108	50 - 150
Trifluorotoluene (Surr)	110	50 - 150
Ethylbenzene-d10	109	50 - 150
Fluorobenzene (Surr)	105	50 - 150
Toluene-d8 (Surr)	112	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW7-033108-W**

Lab Sample ID: 580-9494-7

Date Sampled: 03/31/2008 1750

Client Matrix: Water

Date Received: 04/02/2008 1050

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-30013

Instrument ID: SEA041

Preparation: 5030B

Lab File ID: Gx0013045.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 04/04/2008 1618

Final Weight/Volume: 5 mL

Date Prepared: 04/04/2008 1618

Injection Volume:

Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Gasoline	ND		50	50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	112	50 - 150
Ethylbenzene-d10	109	50 - 150
Fluorobenzene (Surr)	104	50 - 150
Toluene-d8 (Surr)	111	50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW8-040108-W**

Lab Sample ID: 580-9494-8

Date Sampled: 04/01/2008 1305

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-30013

Instrument ID: SEA041

Preparation: 5030B

Lab File ID: Gx0013046.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 04/04/2008 1639

Final Weight/Volume: 5 mL

Date Prepared: 04/04/2008 1639

Injection Volume:

Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Gasoline	ND		50	50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	111	50 - 150
Ethylbenzene-d10	109	50 - 150
Fluorobenzene (Surr)	106	50 - 150
Toluene-d8 (Surr)	111	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW9-040108-W**

Lab Sample ID: 580-9494-9

Date Sampled: 04/01/2008 1320

Client Matrix: Water

Date Received: 04/02/2008 1050

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-30013

Instrument ID: SEA041

Preparation: 5030B

Lab File ID: Gx0013047.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Date Analyzed: 04/04/2008 1701

Final Weight/Volume: 5 mL

Date Prepared: 04/04/2008 1701

Injection Volume:

Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Gasoline	ND		50	50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	111	50 - 150
Ethylbenzene-d10	109	50 - 150
Fluorobenzene (Surr)	105	50 - 150
Toluene-d8 (Surr)	111	50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW6-033108-W**

Lab Sample ID: 580-9494-1

Date Sampled: 03/31/2008 1620

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method:	8011	Analysis Batch: 680-102817	Instrument ID:	GC SemiVolatiles - X
Preparation:	8011	Prep Batch: 680-102621	Lab File ID:	xd090011.d
Dilution:	1.0		Initial Weight/Volume:	36.67 mL
Date Analyzed:	04/09/2008 1735		Final Weight/Volume:	2 mL
Date Prepared:	04/09/2008 1138		Injection Volume:	1 uL
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0040	0.019
Surrogate	%Rec		Acceptance Limits	
1,2,3-Trichloropropane-(Surr)	151	X	60 - 144	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW2-033108-W**

Lab Sample ID: 580-9494-2

Date Sampled: 03/31/2008 1520

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method:	8011	Analysis Batch: 680-102817	Instrument ID:	GC SemiVolatiles - X
Preparation:	8011	Prep Batch: 680-102621	Lab File ID:	xd090012.d
Dilution:	1.0		Initial Weight/Volume:	36.44 mL
Date Analyzed:	04/09/2008 1747		Final Weight/Volume:	2 mL
Date Prepared:	04/09/2008 1138		Injection Volume:	1 uL
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0040	0.019
Surrogate	%Rec		Acceptance Limits	
1,2,3-Trichloropropane-(Surr)	156	X	60 - 144	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW3-033108-W**

Lab Sample ID: 580-9494-3

Date Sampled: 03/31/2008 1335

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method:	8011	Analysis Batch: 680-102817	Instrument ID:	GC SemiVolatiles - X
Preparation:	8011	Prep Batch: 680-102621	Lab File ID:	xd090013.d
Dilution:	1.0		Initial Weight/Volume:	36.25 mL
Date Analyzed:	04/09/2008 1800		Final Weight/Volume:	2 mL
Date Prepared:	04/09/2008 1138		Injection Volume:	1 uL
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0041	0.019
Surrogate	%Rec		Acceptance Limits	
1,2,3-Trichloropropane-(Surr)	143		60 - 144	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW1-033108-W**

Lab Sample ID: 580-9494-4

Date Sampled: 03/31/2008 1315

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method:	8011	Analysis Batch: 680-102817	Instrument ID:	GC SemiVolatiles - X
Preparation:	8011	Prep Batch: 680-102621	Lab File ID:	xd090014.d
Dilution:	1.0		Initial Weight/Volume:	36.02 mL
Date Analyzed:	04/09/2008 1813		Final Weight/Volume:	2 mL
Date Prepared:	04/09/2008 1138		Injection Volume:	1 uL
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0041	0.019
Surrogate	%Rec		Acceptance Limits	
1,2,3-Trichloropropane-(Surr)	145	X	60 - 144	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW4-033108-W**

Lab Sample ID: 580-9494-5

Date Sampled: 03/31/2008 1445

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method:	8011	Analysis Batch: 680-102817	Instrument ID:	GC SemiVolatiles - X
Preparation:	8011	Prep Batch: 680-102621	Lab File ID:	xd090015.d
Dilution:	1.0		Initial Weight/Volume:	35.36 mL
Date Analyzed:	04/09/2008 1826		Final Weight/Volume:	2 mL
Date Prepared:	04/09/2008 1138		Injection Volume:	1 uL
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0042	0.020
Surrogate	%Rec		Acceptance Limits	
1,2,3-Trichloropropane-(Surr)	142		60 - 144	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW5-033108-W**

Lab Sample ID: 580-9494-6

Date Sampled: 03/31/2008 1610

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method:	8011	Analysis Batch: 680-102817	Instrument ID:	GC SemiVolatiles - X
Preparation:	8011	Prep Batch: 680-102621	Lab File ID:	xd090016.d
Dilution:	1.0		Initial Weight/Volume:	36.27 mL
Date Analyzed:	04/09/2008 1839		Final Weight/Volume:	2 mL
Date Prepared:	04/09/2008 1138		Injection Volume:	1 uL
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0041	0.019
Surrogate	%Rec		Acceptance Limits	
1,2,3-Trichloropropane-(Surr)	154	X	60 - 144	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW7-033108-W**

Lab Sample ID: 580-9494-7

Date Sampled: 03/31/2008 1750

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method:	8011	Analysis Batch: 680-102817	Instrument ID:	GC SemiVolatiles - X
Preparation:	8011	Prep Batch: 680-102621	Lab File ID:	xd090017.d
Dilution:	1.0		Initial Weight/Volume:	35.45 mL
Date Analyzed:	04/09/2008 1852		Final Weight/Volume:	2 mL
Date Prepared:	04/09/2008 1138		Injection Volume:	1 uL
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0041	0.020
Surrogate	%Rec		Acceptance Limits	
1,2,3-Trichloropropane-(Surr)	157	X	60 - 144	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW8-040108-W**

Lab Sample ID: 580-9494-8

Date Sampled: 04/01/2008 1305

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method:	8011	Analysis Batch: 680-102817	Instrument ID:	GC SemiVolatiles - X
Preparation:	8011	Prep Batch: 680-102621	Lab File ID:	xd090018.d
Dilution:	1.0		Initial Weight/Volume:	35.86 mL
Date Analyzed:	04/09/2008 1905		Final Weight/Volume:	2 mL
Date Prepared:	04/09/2008 1138		Injection Volume:	1 uL
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0041	0.020
Surrogate	%Rec		Acceptance Limits	
1,2,3-Trichloropropane-(Surr)	159	X	60 - 144	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW9-040108-W**

Lab Sample ID: 580-9494-9

Date Sampled: 04/01/2008 1320

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method:	8011	Analysis Batch: 680-102817	Instrument ID:	GC SemiVolatiles - X
Preparation:	8011	Prep Batch: 680-102621	Lab File ID:	xd090019.d
Dilution:	1.0		Initial Weight/Volume:	36.66 mL
Date Analyzed:	04/09/2008 1917		Final Weight/Volume:	2 mL
Date Prepared:	04/09/2008 1138		Injection Volume:	1 uL
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0040	0.019
Surrogate	%Rec		Acceptance Limits	
1,2,3-Trichloropropane-(Surr)	149	X	60 - 144	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW6-033108-W**

Lab Sample ID: 580-9494-1

Date Sampled: 03/31/2008 1620

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30015	Instrument ID:	SEA034
Preparation:	3510C	Prep Batch: 580-29911	Lab File ID:	PCB15068.D
Dilution:	1.0		Initial Weight/Volume:	1040 mL
Date Analyzed:	04/04/2008 0624		Final Weight/Volume:	10 mL
Date Prepared:	04/03/2008 0914		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.48	0.48
PCB-1221	ND		0.48	0.48
PCB-1232	ND		0.48	0.48
PCB-1242	ND		0.48	0.48
PCB-1248	ND		0.48	0.48
PCB-1254	ND		0.48	0.48
PCB-1260	ND		0.48	0.48

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	112	40 - 135
Tetrachloro-m-xylene	104	60 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

Client Sample ID: MW2-033108-W

Lab Sample ID: 580-9494-2

Date Sampled: 03/31/2008 1520

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30015	Instrument ID:	SEA034
Preparation:	3510C	Prep Batch: 580-29911	Lab File ID:	PCB15069.D
Dilution:	1.0		Initial Weight/Volume:	1050 mL
Date Analyzed:	04/04/2008 0647		Final Weight/Volume:	10 mL
Date Prepared:	04/03/2008 0914		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.48	0.48
PCB-1221	ND		0.48	0.48
PCB-1232	ND		0.48	0.48
PCB-1242	ND		0.48	0.48
PCB-1248	ND		0.48	0.48
PCB-1254	ND		0.48	0.48
PCB-1260	ND		0.48	0.48

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	117	40 - 135
Tetrachloro-m-xylene	108	60 - 150



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW3-033108-W**

Lab Sample ID: 580-9494-3

Date Sampled: 03/31/2008 1335

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30015	Instrument ID:	SEA034
Preparation:	3510C	Prep Batch: 580-29911	Lab File ID:	PCB15070.D
Dilution:	1.0		Initial Weight/Volume:	1040 mL
Date Analyzed:	04/04/2008 0711		Final Weight/Volume:	10 mL
Date Prepared:	04/03/2008 0914		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.48	0.48
PCB-1221	ND		0.48	0.48
PCB-1232	ND		0.48	0.48
PCB-1242	ND		0.48	0.48
PCB-1248	ND		0.48	0.48
PCB-1254	ND		0.48	0.48
PCB-1260	ND		0.48	0.48

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	106	40 - 135
Tetrachloro-m-xylene	104	60 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW1-033108-W**

Lab Sample ID: 580-9494-4

Date Sampled: 03/31/2008 1315

Client Matrix: Water

Date Received: 04/02/2008 1050

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## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30015	Instrument ID:	SEA034
Preparation:	3510C	Prep Batch: 580-29911	Lab File ID:	PCB15071.D
Dilution:	1.0		Initial Weight/Volume:	1030 mL
Date Analyzed:	04/04/2008 0735		Final Weight/Volume:	10 mL
Date Prepared:	04/03/2008 0914		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.49	0.49
PCB-1221	ND		0.49	0.49
PCB-1232	ND		0.49	0.49
PCB-1242	ND		0.49	0.49
PCB-1248	ND		0.49	0.49
PCB-1254	ND		0.49	0.49
PCB-1260	ND		0.49	0.49

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	114	40 - 135
Tetrachloro-m-xylene	97	60 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW4-033108-W**

Lab Sample ID: 580-9494-5

Date Sampled: 03/31/2008 1445

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30015	Instrument ID:	SEA034
Preparation:	3510C	Prep Batch: 580-29911	Lab File ID:	PCB15072.D
Dilution:	1.0		Initial Weight/Volume:	1020 mL
Date Analyzed:	04/04/2008 0758		Final Weight/Volume:	10 mL
Date Prepared:	04/03/2008 0914		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.49	0.49
PCB-1221	ND		0.49	0.49
PCB-1232	ND		0.49	0.49
PCB-1242	ND		0.49	0.49
PCB-1248	ND		0.49	0.49
PCB-1254	ND		0.49	0.49
PCB-1260	ND		0.49	0.49

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	110	40 - 135
Tetrachloro-m-xylene	98	60 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW5-033108-W**

Lab Sample ID: 580-9494-6

Date Sampled: 03/31/2008 1610

Client Matrix: Water

Date Received: 04/02/2008 1050

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## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30015	Instrument ID:	SEA034
Preparation:	3510C	Prep Batch: 580-29911	Lab File ID:	PCB15073.D
Dilution:	1.0		Initial Weight/Volume:	1010 mL
Date Analyzed:	04/04/2008 0822		Final Weight/Volume:	10 mL
Date Prepared:	04/03/2008 0914		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.50	0.50
PCB-1221	ND		0.50	0.50
PCB-1232	ND		0.50	0.50
PCB-1242	ND		0.50	0.50
PCB-1248	ND		0.50	0.50
PCB-1254	ND		0.50	0.50
PCB-1260	ND		0.50	0.50

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	109	40 - 135
Tetrachloro-m-xylene	98	60 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW7-033108-W**

Lab Sample ID: 580-9494-7

Date Sampled: 03/31/2008 1750

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30015	Instrument ID:	SEA034
Preparation:	3510C	Prep Batch: 580-29911	Lab File ID:	PCB15075.D
Dilution:	1.0		Initial Weight/Volume:	1060 mL
Date Analyzed:	04/04/2008 0909		Final Weight/Volume:	10 mL
Date Prepared:	04/03/2008 0914		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.47	0.47
PCB-1221	ND		0.47	0.47
PCB-1232	ND		0.47	0.47
PCB-1242	ND		0.47	0.47
PCB-1248	ND		0.47	0.47
PCB-1254	ND		0.47	0.47
PCB-1260	ND		0.47	0.47

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	111	40 - 135
Tetrachloro-m-xylene	100	60 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW8-040108-W**

Lab Sample ID: 580-9494-8

Date Sampled: 04/01/2008 1305

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30015	Instrument ID:	SEA034
Preparation:	3510C	Prep Batch: 580-29911	Lab File ID:	PCB15076.D
Dilution:	1.0		Initial Weight/Volume:	1040 mL
Date Analyzed:	04/04/2008 0933		Final Weight/Volume:	10 mL
Date Prepared:	04/03/2008 0914		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.48	0.48
PCB-1221	ND		0.48	0.48
PCB-1232	ND		0.48	0.48
PCB-1242	ND		0.48	0.48
PCB-1248	ND		0.48	0.48
PCB-1254	ND		0.48	0.48
PCB-1260	ND		0.48	0.48

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	105	40 - 135
Tetrachloro-m-xylene	89	60 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW9-040108-W**

Lab Sample ID: 580-9494-9

Date Sampled: 04/01/2008 1320

Client Matrix: Water

Date Received: 04/02/2008 1050

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### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30015	Instrument ID:	SEA034
Preparation:	3510C	Prep Batch: 580-29911	Lab File ID:	PCB15077.D
Dilution:	1.0		Initial Weight/Volume:	1040 mL
Date Analyzed:	04/04/2008 0957		Final Weight/Volume:	10 mL
Date Prepared:	04/03/2008 0914		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
PCB-1016	ND		0.48	0.48
PCB-1221	ND		0.48	0.48
PCB-1232	ND		0.48	0.48
PCB-1242	ND		0.48	0.48
PCB-1248	ND		0.48	0.48
PCB-1254	ND		0.48	0.48
PCB-1260	ND		0.48	0.48

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	106	40 - 135
Tetrachloro-m-xylene	105	60 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW6-033108-W**

Lab Sample ID: 580-9494-1

Date Sampled: 03/31/2008 1620

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-30150	Instrument ID:	SEA013
Preparation:	3510C	Prep Batch: 580-29950	Lab File ID:	FA34401.D
Dilution:	1.0		Initial Weight/Volume:	1030 mL
Date Analyzed:	04/09/2008 1617		Final Weight/Volume:	5 mL
Date Prepared:	04/04/2008 0735		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Motor Oil (>C24-C36)	ND		240	240
#2 Diesel (C10-C24)	ND		120	120
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	112		50 - 150	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW2-033108-W**

Lab Sample ID: 580-9494-2

Date Sampled: 03/31/2008 1520

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-30150	Instrument ID:	SEA013
Preparation:	3510C	Prep Batch: 580-29950	Lab File ID:	FA34402.D
Dilution:	1.0		Initial Weight/Volume:	1060 mL
Date Analyzed:	04/09/2008 1637		Final Weight/Volume:	5 mL
Date Prepared:	04/04/2008 0735		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Motor Oil (>C24-C36)	ND		240	240
#2 Diesel (C10-C24)	ND		120	120
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	109		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW3-033108-W**

Lab Sample ID: 580-9494-3

Date Sampled: 03/31/2008 1335

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-30150	Instrument ID:	SEA013
Preparation:	3510C	Prep Batch: 580-29950	Lab File ID:	FA34403.D
Dilution:	1.0		Initial Weight/Volume:	1030 mL
Date Analyzed:	04/09/2008 1657		Final Weight/Volume:	5 mL
Date Prepared:	04/04/2008 0735		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Motor Oil (>C24-C36)	ND		240	240
#2 Diesel (C10-C24)	ND		120	120
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	111		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW1-033108-W**

Lab Sample ID: 580-9494-4

Date Sampled: 03/31/2008 1315

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-30150	Instrument ID:	SEA013
Preparation:	3510C	Prep Batch: 580-29950	Lab File ID:	FA34404.D
Dilution:	1.0		Initial Weight/Volume:	1010 mL
Date Analyzed:	04/09/2008 1717		Final Weight/Volume:	5 mL
Date Prepared:	04/04/2008 0735		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Motor Oil (>C24-C36)	ND		250	250
#2 Diesel (C10-C24)	ND		120	120
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	117		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW4-033108-W**

Lab Sample ID: 580-9494-5

Date Sampled: 03/31/2008 1445

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-30150	Instrument ID:	SEA013
Preparation:	3510C	Prep Batch: 580-29950	Lab File ID:	FA34405.D
Dilution:	1.0		Initial Weight/Volume:	10020 mL
Date Analyzed:	04/09/2008 1737		Final Weight/Volume:	5 mL
Date Prepared:	04/04/2008 0735		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Motor Oil (>C24-C36)	ND		25	25
#2 Diesel (C10-C24)	ND		12	12
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	105		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW5-033108-W**

Lab Sample ID: 580-9494-6

Date Sampled: 03/31/2008 1610

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-30150	Instrument ID:	SEA013
Preparation:	3510C	Prep Batch: 580-29950	Lab File ID:	FA34406.D
Dilution:	1.0		Initial Weight/Volume:	1020 mL
Date Analyzed:	04/09/2008 1758		Final Weight/Volume:	5 mL
Date Prepared:	04/04/2008 0735		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Motor Oil (>C24-C36)	ND		250	250
#2 Diesel (C10-C24)	ND		120	120
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	115		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW7-033108-W**

Lab Sample ID: 580-9494-7

Date Sampled: 03/31/2008 1750

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-30150	Instrument ID:	SEA013
Preparation:	3510C	Prep Batch: 580-29950	Lab File ID:	FA34407.D
Dilution:	1.0		Initial Weight/Volume:	1020 mL
Date Analyzed:	04/09/2008 1818		Final Weight/Volume:	5 mL
Date Prepared:	04/04/2008 0735		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Motor Oil (>C24-C36)	ND		250	250
#2 Diesel (C10-C24)	ND		120	120
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	113		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW8-040108-W**

Lab Sample ID: 580-9494-8

Date Sampled: 04/01/2008 1305

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-30150	Instrument ID:	SEA013
Preparation:	3510C	Prep Batch: 580-29950	Lab File ID:	FA34408.D
Dilution:	1.0		Initial Weight/Volume:	1030 mL
Date Analyzed:	04/09/2008 1838		Final Weight/Volume:	5 mL
Date Prepared:	04/04/2008 0735		Injection Volume:	
			Column ID:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Motor Oil (>C24-C36)	ND		240	240
#2 Diesel (C10-C24)	ND		120	120
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	102		50 - 150	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW9-040108-W**

Lab Sample ID: 580-9494-9

Date Sampled: 04/01/2008 1320

Client Matrix: Water

Date Received: 04/02/2008 1050

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### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30150

Instrument ID: SEA013

Preparation: 3510C

Prep Batch: 580-29950

Lab File ID: FA34409.D

Dilution: 1.0

Initial Weight/Volume: 1020 mL

Date Analyzed: 04/09/2008 1858

Final Weight/Volume: 5 mL

Date Prepared: 04/04/2008 0735

Injection Volume:

Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL	RL
Motor Oil (>C24-C36)	ND		250	250
#2 Diesel (C10-C24)	ND		120	120
Surrogate	%Rec		Acceptance Limits	
o-Terphenyl	118		50 - 150	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

### Client Sample ID: MW6-033108-W

Lab Sample ID: 580-9494-1

Date Sampled: 03/31/2008 1620

Client Matrix: Water

Date Received: 04/02/2008 1050

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method: 6010B Analysis Batch: 580-30037 Instrument ID: SEA027  
Preparation: 3005A Prep Batch: 580-30003 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1419 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	25		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method: 6010B Analysis Batch: 580-30057 Instrument ID: SEA027  
Preparation: N/A Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1645 Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	13		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

#### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method: 6020 Analysis Batch: 580-30046 Instrument ID: SEA044  
Preparation: 3005A Prep Batch: 580-30003 Lab File ID: N/A  
Dilution: 5.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1226 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	ND		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	ND		2.0	2.0

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW6-033108-W**

Lab Sample ID: 580-9494-1  
Client Matrix: Water

Date Sampled: 03/31/2008 1620  
Date Received: 04/02/2008 1050

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Dissolved

Method: 6020 Analysis Batch: 580-30046 Instrument ID: SEA044  
Preparation: N/A Lab File ID: N/A  
Dilution: 5.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1512 Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	ND		2.0	2.0
Lead	ND		2.0	2.0
Cadmium	ND		2.0	2.0

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method: 7470A Analysis Batch: 580-30048 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30021 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1434 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1155

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-Dissolved

Method: 7470A Analysis Batch: 580-30047 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30019 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1327 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1131

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW2-033108-W**

Lab Sample ID: 580-9494-2  
Client Matrix: Water

Date Sampled: 03/31/2008 1520  
Date Received: 04/02/2008 1050

## 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method: 6010B                      Analysis Batch: 580-30037                      Instrument ID: SEA027  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1452                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	29		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

## 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method: 6010B                      Analysis Batch: 580-30057                      Instrument ID: SEA027  
Preparation: N/A                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1648                      Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	25		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method: 6020                      Analysis Batch: 580-30046                      Instrument ID: SEA044  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 5.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1313                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	2.5		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	ND		2.0	2.0

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW2-033108-W**

Lab Sample ID: 580-9494-2  
Client Matrix: Water

Date Sampled: 03/31/2008 1520  
Date Received: 04/02/2008 1050

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Dissolved

Method: 6020 Analysis Batch: 580-30046 Instrument ID: SEA044  
Preparation: N/A Lab File ID: N/A  
Dilution: 5.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1517 Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	ND		2.0	2.0
Lead	ND		2.0	2.0
Cadmium	ND		2.0	2.0

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method: 7470A Analysis Batch: 580-30048 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30021 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1437 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1155

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-Dissolved

Method: 7470A Analysis Batch: 580-30047 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30019 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1342 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1131

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW3-033108-W**

Lab Sample ID: 580-9494-3  
Client Matrix: Water

Date Sampled: 03/31/2008 1335  
Date Received: 04/02/2008 1050

## 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method: 6010B                      Analysis Batch: 580-30037                      Instrument ID: SEA027  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1455                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	12		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

## 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method: 6010B                      Analysis Batch: 580-30057                      Instrument ID: SEA027  
Preparation: N/A                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1650                      Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	ND		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method: 6020                      Analysis Batch: 580-30046                      Instrument ID: SEA044  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 5.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1318                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	ND		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	ND		2.0	2.0

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW3-033108-W**

Lab Sample ID: 580-9494-3  
Client Matrix: Water

Date Sampled: 03/31/2008 1335  
Date Received: 04/02/2008 1050

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Dissolved

Method: 6020 Analysis Batch: 580-30046 Instrument ID: SEA044  
Preparation: N/A Lab File ID: N/A  
Dilution: 5.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1522 Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	ND		2.0	2.0
Lead	ND		2.0	2.0
Cadmium	ND		2.0	2.0

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method: 7470A Analysis Batch: 580-30048 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30021 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1441 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1155

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-Dissolved

Method: 7470A Analysis Batch: 580-30047 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30019 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1346 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1131

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW1-033108-W**

Lab Sample ID: 580-9494-4  
Client Matrix: Water

Date Sampled: 03/31/2008 1315  
Date Received: 04/02/2008 1050

## 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method: 6010B                      Analysis Batch: 580-30037                      Instrument ID: SEA027  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1457                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	28		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

## 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method: 6010B                      Analysis Batch: 580-30057                      Instrument ID: SEA027  
Preparation: N/A                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1653                      Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	15		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method: 6020                      Analysis Batch: 580-30046                      Instrument ID: SEA044  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 5.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1323                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	7.9		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	ND		2.0	2.0

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW1-033108-W**

Lab Sample ID: 580-9494-4  
Client Matrix: Water

Date Sampled: 03/31/2008 1315  
Date Received: 04/02/2008 1050

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Dissolved

Method: 6020 Analysis Batch: 580-30046 Instrument ID: SEA044  
Preparation: N/A Lab File ID: N/A  
Dilution: 5.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1527 Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	5.3		2.0	2.0
Lead	ND		2.0	2.0
Cadmium	ND		2.0	2.0

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method: 7470A Analysis Batch: 580-30048 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30021 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1444 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1155

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-Dissolved

Method: 7470A Analysis Batch: 580-30047 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30019 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1349 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1131

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW4-033108-W**

Lab Sample ID: 580-9494-5  
Client Matrix: Water

Date Sampled: 03/31/2008 1445  
Date Received: 04/02/2008 1050

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method: 6010B                      Analysis Batch: 580-30037                      Instrument ID: SEA027  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1500                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	47		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method: 6010B                      Analysis Batch: 580-30057                      Instrument ID: SEA027  
Preparation: N/A                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1656                      Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	28		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method: 6020                      Analysis Batch: 580-30046                      Instrument ID: SEA044  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 5.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1328                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	ND		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	ND		2.0	2.0

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW4-033108-W**

Lab Sample ID: 580-9494-5  
Client Matrix: Water

Date Sampled: 03/31/2008 1445  
Date Received: 04/02/2008 1050

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Dissolved

Method: 6020 Analysis Batch: 580-30046 Instrument ID: SEA044  
Preparation: N/A Lab File ID: N/A  
Dilution: 5.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1532 Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	ND		2.0	2.0
Lead	ND		2.0	2.0
Cadmium	ND		2.0	2.0

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method: 7470A Analysis Batch: 580-30048 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30021 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1448 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1155

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-Dissolved

Method: 7470A Analysis Batch: 580-30047 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30019 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1359 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1131

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW5-033108-W**

Lab Sample ID: 580-9494-6  
Client Matrix: Water

Date Sampled: 03/31/2008 1610  
Date Received: 04/02/2008 1050

## 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method: 6010B                      Analysis Batch: 580-30037                      Instrument ID: SEA027  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1503                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	41		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

## 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method: 6010B                      Analysis Batch: 580-30057                      Instrument ID: SEA027  
Preparation: N/A                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1659                      Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	38		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method: 6020                      Analysis Batch: 580-30046                      Instrument ID: SEA044  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 5.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1333                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	6.1		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	3.9		2.0	2.0

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW5-033108-W**

Lab Sample ID: 580-9494-6  
Client Matrix: Water

Date Sampled: 03/31/2008 1610  
Date Received: 04/02/2008 1050

### 6020 Inductively Coupled Plasma - Mass Spectrometry-Dissolved

Method: 6020	Analysis Batch: 580-30046	Instrument ID: SEA044
Preparation: N/A		Lab File ID: N/A
Dilution: 5.0		Initial Weight/Volume: 50 mL
Date Analyzed: 04/07/2008 1538		Final Weight/Volume: 50 mL
Date Prepared: N/A		

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	4.7		2.0	2.0
Lead	ND		2.0	2.0
Cadmium	ND		2.0	2.0

### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method: 7470A	Analysis Batch: 580-30048	Instrument ID: SEA029
Preparation: 7470A	Prep Batch: 580-30021	Lab File ID: N/A
Dilution: 1.0		Initial Weight/Volume: 50 mL
Date Analyzed: 04/07/2008 1451		Final Weight/Volume: 50 mL
Date Prepared: 04/07/2008 1155		

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

### 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-Dissolved

Method: 7470A	Analysis Batch: 580-30047	Instrument ID: SEA029
Preparation: 7470A	Prep Batch: 580-30019	Lab File ID: N/A
Dilution: 1.0		Initial Weight/Volume: 50 mL
Date Analyzed: 04/07/2008 1402		Final Weight/Volume: 50 mL
Date Prepared: 04/07/2008 1131		

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW7-033108-W**

Lab Sample ID: 580-9494-7  
Client Matrix: Water

Date Sampled: 03/31/2008 1750  
Date Received: 04/02/2008 1050

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method: 6010B                      Analysis Batch: 580-30037                      Instrument ID: SEA027  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1505                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	36		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method: 6010B                      Analysis Batch: 580-30057                      Instrument ID: SEA027  
Preparation: N/A                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1701                      Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	30		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method: 6020                      Analysis Batch: 580-30046                      Instrument ID: SEA044  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 5.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1339                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	3.2		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	ND		2.0	2.0

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW7-033108-W**

Lab Sample ID: 580-9494-7  
Client Matrix: Water

Date Sampled: 03/31/2008 1750  
Date Received: 04/02/2008 1050

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Dissolved

Method: 6020 Analysis Batch: 580-30046 Instrument ID: SEA044  
Preparation: N/A Lab File ID: N/A  
Dilution: 5.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1543 Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	2.5		2.0	2.0
Lead	ND		2.0	2.0
Cadmium	ND		2.0	2.0

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method: 7470A Analysis Batch: 580-30048 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30021 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1455 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1155

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-Dissolved

Method: 7470A Analysis Batch: 580-30047 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30019 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1406 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1131

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW8-040108-W**

Lab Sample ID: 580-9494-8  
Client Matrix: Water

Date Sampled: 04/01/2008 1305  
Date Received: 04/02/2008 1050

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method: 6010B                      Analysis Batch: 580-30037                      Instrument ID: SEA027  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1508                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	31		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method: 6010B                      Analysis Batch: 580-30057                      Instrument ID: SEA027  
Preparation: N/A                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1704                      Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	27		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method: 6020                      Analysis Batch: 580-30046                      Instrument ID: SEA044  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 5.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1344                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	ND		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	ND		2.0	2.0

**Analytical Data**

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW8-040108-W**Lab Sample ID: 580-9494-8  
Client Matrix: WaterDate Sampled: 04/01/2008 1305  
Date Received: 04/02/2008 1050**6020 Inductively Coupled Plasma - Mass Spectrometry-Dissolved**Method: 6020 Analysis Batch: 580-30046 Instrument ID: SEA044  
Preparation: N/A Lab File ID: N/A  
Dilution: 5.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1548 Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	ND		2.0	2.0
Lead	ND		2.0	2.0
Cadmium	ND		2.0	2.0

**7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)**Method: 7470A Analysis Batch: 580-30048 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30021 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1506 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1155

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

**7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-Dissolved**Method: 7470A Analysis Batch: 580-30047 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30019 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1409 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1131

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW9-040108-W**

Lab Sample ID: 580-9494-9  
Client Matrix: Water

Date Sampled: 04/01/2008 1320  
Date Received: 04/02/2008 1050

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method: 6010B                      Analysis Batch: 580-30037                      Instrument ID: SEA027  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1511                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	23		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Dissolved

Method: 6010B                      Analysis Batch: 580-30057                      Instrument ID: SEA027  
Preparation: N/A                      Lab File ID: N/A  
Dilution: 1.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1613                      Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Barium	21		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

### 6020 Inductively Coupled Plasma - Mass Spectrometry-Total Recoverable

Method: 6020                      Analysis Batch: 580-30046                      Instrument ID: SEA044  
Preparation: 3005A                      Prep Batch: 580-30003                      Lab File ID: N/A  
Dilution: 5.0                      Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1349                      Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 0906

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	3.4		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	ND		2.0	2.0

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Client Sample ID: MW9-040108-W**

Lab Sample ID: 580-9494-9  
Client Matrix: Water

Date Sampled: 04/01/2008 1320  
Date Received: 04/02/2008 1050

## 6020 Inductively Coupled Plasma - Mass Spectrometry-Dissolved

Method: 6020 Analysis Batch: 580-30046 Instrument ID: SEA044  
Preparation: N/A Lab File ID: N/A  
Dilution: 5.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1425 Final Weight/Volume: 50 mL  
Date Prepared: N/A

Analyte	Result (ug/L)	Qualifier	RL	RL
Arsenic	2.9		2.0	2.0
Lead	ND		2.0	2.0
Cadmium	ND		2.0	2.0

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)

Method: 7470A Analysis Batch: 580-30048 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30021 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1509 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1155

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

## 7470A Mercury in Liquid Waste (Manual Cold Vapor Technique)-Dissolved

Method: 7470A Analysis Batch: 580-30047 Instrument ID: SEA029  
Preparation: 7470A Prep Batch: 580-30019 Lab File ID: N/A  
Dilution: 1.0 Initial Weight/Volume: 50 mL  
Date Analyzed: 04/07/2008 1413 Final Weight/Volume: 50 mL  
Date Prepared: 04/07/2008 1131

Analyte	Result (ug/L)	Qualifier	RL	RL
Mercury	ND		0.20	0.20

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-30032**

**Method: 8260B  
Preparation: 5030B**

Lab Sample ID: MB 580-30032/1  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 04/07/2008 1104  
 Date Prepared: 04/07/2008 1104

Analysis Batch: 580-30032  
 Prep Batch: N/A  
 Units: ug/L

Instrument ID: SEA036  
 Lab File ID: HP17479.D  
 Initial Weight/Volume: 25 mL  
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL	RL
1,2,3-Trichloropropane	ND		0.20	0.20
Carbon tetrachloride	ND		0.10	0.10
Chloroethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.10	0.10
2-Chlorotoluene	ND		0.10	0.10
Chlorobenzene	ND		0.10	0.10
Vinyl chloride	ND		0.020	0.020
sec-Butylbenzene	ND		0.10	0.10
Dibromomethane	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.20	0.20
m-Xylene & p-Xylene	ND		0.20	0.20
o-Xylene	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.20	0.20
Styrene	ND		0.10	0.10
Chlorobromomethane	ND		0.10	0.10
Dichlorobromomethane	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.20	0.20
Benzene	ND		0.10	0.10
trans-1,3-Dichloropropene	ND		0.10	0.10
1,2,3-Trichlorobenzene	ND		0.40	0.40
N-Propylbenzene	ND		0.10	0.10
4-Isopropyltoluene	ND		0.20	0.20
n-Butylbenzene	ND		0.10	0.10
1,1-Dichloropropene	ND		0.10	0.10
cis-1,2-Dichloroethene	ND		0.10	0.10
1,1,2,2-Tetrachloroethane	ND		0.10	0.10
1,2,4-Trimethylbenzene	ND		0.10	0.10
Toluene	ND		0.10	0.10
Naphthalene	ND		0.40	0.40
1,3,5-Trimethylbenzene	ND		0.10	0.10
1,3-Dichloropropane	ND		0.10	0.10
Chloroform	ND		0.10	0.10
4-Chlorotoluene	ND		0.20	0.20
Chlorodibromomethane	ND		0.10	0.10
Dichlorodifluoromethane	ND		0.40	0.40
1,1,2-Trichloroethane	ND		0.10	0.10
tert-Butylbenzene	ND		0.10	0.10
Chloromethane	ND		0.10	0.10
Methylene Chloride	ND		0.10	0.10
1,1-Dichloroethene	ND		0.10	0.10
Isopropylbenzene	ND		0.10	0.10

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-30032**

**Method: 8260B  
Preparation: 5030B**

Lab Sample ID: MB 580-30032/1  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 04/07/2008 1104  
 Date Prepared: 04/07/2008 1104

Analysis Batch: 580-30032  
 Prep Batch: N/A  
 Units: ug/L

Instrument ID: SEA036  
 Lab File ID: HP17479.D  
 Initial Weight/Volume: 25 mL  
 Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL	RL
1,2-Dichloroethane	ND		0.10	0.10
Tetrachloroethene	ND		0.10	0.10
1,1,1-Trichloroethane	ND		0.10	0.10
2,2-Dichloropropane	ND		0.10	0.10
Bromoform	ND		0.10	0.10
1,2-Dibromo-3-Chloropropane	ND		0.20	0.20
Trichlorofluoromethane	ND		0.10	0.10
Trichloroethene	ND		0.10	0.10
Bromobenzene	ND		0.10	0.10
1,2-Dichloropropane	ND		0.10	0.10
1,1,1,2-Tetrachloroethane	ND		0.10	0.10
Ethylbenzene	ND		0.10	0.10
trans-1,2-Dichloroethene	ND		0.10	0.10
Hexachlorobutadiene	ND		0.20	0.20
1,1-Dichloroethane	ND		0.10	0.10
Bromomethane	ND		0.10	0.10
Surrogate	% Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	106		80 - 120	
Ethylbenzene-d10	108		80 - 120	
Fluorobenzene (Surr)	109		80 - 120	
Trifluorotoluene (Surr)	120		80 - 120	
Toluene-d8 (Surr)	103		80 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

# Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

## Lab Control Spike - Batch: 580-30032

**Method: 8260B**  
**Preparation: 5030B**

Lab Sample ID: LCS 580-30032/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1246  
Date Prepared: 04/07/2008 1246

Analysis Batch: 580-30032  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA036  
Lab File ID: HP17481.D  
Initial Weight/Volume: 25 mL  
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chlorobenzene	5.00	5.26	105	80 - 120	
Benzene	5.00	5.22	104	80 - 120	
Toluene	5.00	4.72	94	80 - 120	
1,1-Dichloroethene	5.00	5.02	100	80 - 120	
Trichloroethene	5.00	5.07	101	80 - 120	
Surrogate			% Rec	Acceptance Limits	
4-Bromofluorobenzene (Surr)			117	80 - 120	
Ethylbenzene-d10		X	121	80 - 120	
Fluorobenzene (Surr)			106	80 - 120	
Trifluorotoluene (Surr)			119	80 - 120	
Toluene-d8 (Surr)			109	80 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-29965**

**Method: 8270C**

**Preparation: 3510C**

Lab Sample ID: MB 580-29965/1-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 04/09/2008 0130  
 Date Prepared: 04/04/2008 1002

Analysis Batch: 580-30221  
 Prep Batch: 580-29965  
 Units: ug/L

Instrument ID: SEA040  
 Lab File ID: ak015013.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1 mL  
 Injection Volume: 1.0 uL

Analyte	Result	Qual	RL	RL
Acenaphthene	ND		0.050	0.050
Acenaphthylene	ND		0.040	0.040
Anthracene	ND		0.020	0.020
Benzo[a]anthracene	ND		0.030	0.030
Benzo[a]pyrene	ND		0.020	0.020
Benzo[b]fluoranthene	ND		0.040	0.040
Benzo[fluoranthene	ND		0.040	0.040
Benzo[g,h,i]perylene	ND		0.030	0.030
Benzoic acid	ND		1.0	1.0
Benzo[k]fluoranthene	ND		0.030	0.030
Benzyl alcohol	ND		0.20	0.20
Bis(2-chloroethoxy)methane	ND		0.20	0.20
Bis(2-chloroethyl)ether	ND		0.20	0.20
Bis(2-ethylhexyl) phthalate	ND		1.5	1.5
4-Bromophenyl phenyl ether	ND		0.20	0.20
Butyl benzyl phthalate	ND		0.30	0.30
Carbazole	ND		0.20	0.20
4-Chloroaniline	ND		0.20	0.20
4-Chloro-3-methylphenol	ND		0.20	0.20
2-Chloronaphthalene	ND		0.030	0.030
2-Chlorophenol	ND		0.20	0.20
4-Chlorophenyl phenyl ether	ND		0.20	0.20
Chrysene	ND		0.020	0.020
Dibenz(a,h)anthracene	ND		0.030	0.030
Dibenzofuran	ND		0.20	0.20
1,2-Dichlorobenzene	ND		0.20	0.20
1,3-Dichlorobenzene	ND		0.20	0.20
1,4-Dichlorobenzene	ND		0.20	0.20
3,3'-Dichlorobenzidine	ND		1.0	1.0
2,4-Dichlorophenol	ND		0.20	0.20
Diethyl phthalate	ND		0.20	0.20
2,4-Dimethylphenol	ND		1.0	1.0
Dimethyl phthalate	ND		0.20	0.20
Di-n-butyl phthalate	ND		0.20	0.20
4,6-Dinitro-2-methylphenol	ND		2.0	2.0
2,4-Dinitrophenol	ND		2.5	2.5
2,4-Dinitrotoluene	ND		0.20	0.20
2,6-Dinitrotoluene	ND		0.20	0.20
Di-n-octyl phthalate	ND		0.20	0.20
Fluoranthene	ND		0.025	0.025
Fluorene	ND		0.030	0.030

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-29965**

**Method: 8270C  
Preparation: 3510C**

Lab Sample ID: MB 580-29965/1-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 04/09/2008 0130  
 Date Prepared: 04/04/2008 1002

Analysis Batch: 580-30221  
 Prep Batch: 580-29965  
 Units: ug/L

Instrument ID: SEA040  
 Lab File ID: ak015013.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1 mL  
 Injection Volume: 1.0 uL

Analyte	Result	Qual	RL	RL
Hexachlorobenzene	ND		0.20	0.20
Hexachlorobutadiene	ND		0.30	0.30
Hexachlorocyclopentadiene	ND		1.0	1.0
Hexachloroethane	ND		0.30	0.30
Indeno[1,2,3-cd]pyrene	ND		0.030	0.030
Isophorone	ND		0.20	0.20
1-Methylnaphthalene	ND		0.030	0.030
2-Methylnaphthalene	ND		0.10	0.10
2-Methylphenol	ND		0.20	0.20
3 & 4 Methylphenol	ND		0.40	0.40
Naphthalene	ND		0.20	0.20
2-Nitroaniline	ND		0.20	0.20
3-Nitroaniline	ND		0.20	0.20
4-Nitroaniline	ND		0.30	0.30
Nitrobenzene	ND		0.20	0.20
2-Nitrophenol	ND		0.20	0.20
4-Nitrophenol	ND		1.0	1.0
N-Nitrosodi-n-propylamine	ND		0.20	0.20
N-Nitrosodiphenylamine	ND		0.20	0.20
Pentachlorophenol	ND		0.35	0.35
Phenanthrene	ND		0.040	0.040
Phenol	ND		0.30	0.30
Pyrene	ND		0.030	0.030
1,2,4-Trichlorobenzene	ND		0.20	0.20
2,4,5-Trichlorophenol	ND		0.20	0.20
2,4,6-Trichlorophenol	ND		0.30	0.30
2,2'-oxybis[1-chloropropane]	ND		0.20	0.20

Surrogate	% Rec		Acceptance Limits
2-Fluorobiphenyl	69		35 - 143
2-Fluorophenol	20		10 - 120
Nitrobenzene-d5	68		34 - 146
Phenol-d5	18		10 - 102
Terphenyl-d14	88		35 - 166
2,4,6-Tribromophenol	25	X	29 - 151

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

### Lab Control Spike - Batch: 580-29965

**Method: 8270C**  
**Preparation: 3510C**

Lab Sample ID: LCS 580-29965/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/09/2008 0151  
Date Prepared: 04/04/2008 1002

Analysis Batch: 580-30221  
Prep Batch: 580-29965  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak015014.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	1.00	0.866	87	65 - 130	
Acenaphthylene	1.00	0.903	90	71 - 126	
Anthracene	1.00	0.928	93	73 - 128	
Benzo[a]anthracene	1.00	0.959	96	70 - 126	
Benzo[a]pyrene	1.00	0.952	95	72 - 128	
Benzo[b]fluoranthene	1.00	0.932	93	64 - 140	
Benzofluoranthene	2.00	1.90	95	59 - 140	
Benzo[g,h,i]perylene	1.00	0.971	97	59 - 144	
Benzoic acid	5.00	1.23	25	0 - 35	
Benzo[k]fluoranthene	1.00	0.962	96	62 - 142	
Benzyl alcohol	1.00	0.568	57	20 - 100	
Bis(2-chloroethoxy)methane	1.00	0.874	87	65 - 126	
Bis(2-chloroethyl)ether	1.00	0.861	86	53 - 128	
Bis(2-ethylhexyl) phthalate	1.00	ND	104	69 - 154	
4-Bromophenyl phenyl ether	1.00	0.938	94	66 - 131	
Butyl benzyl phthalate	1.00	1.05	105	70 - 141	
Carbazole	1.00	0.985	98	90 - 155	
4-Chloroaniline	1.00	0.893	89	75 - 171	
4-Chloro-3-methylphenol	1.00	0.805	80	56 - 121	
2-Chloronaphthalene	1.00	0.792	79	70 - 125	
2-Chlorophenol	1.00	0.762	76	52 - 122	
4-Chlorophenyl phenyl ether	1.00	0.906	91	66 - 127	
Chrysene	1.00	0.990	99	70 - 126	
Dibenz(a,h)anthracene	1.00	0.980	98	61 - 146	
Dibenzofuran	1.00	0.886	89	71 - 121	
1,2-Dichlorobenzene	1.00	0.660	66	60 - 126	
1,3-Dichlorobenzene	1.00	0.646	65	58 - 129	
1,4-Dichlorobenzene	1.00	0.637	64	62 - 132	
3,3'-Dichlorobenzidine	2.00	1.88	94	67 - 157	
2,4-Dichlorophenol	1.00	0.826	83	66 - 122	
Diethyl phthalate	1.00	1.05	105	54 - 135	
2,4-Dimethylphenol	1.00	ND	30	47 - 127	*
Dimethyl phthalate	1.00	0.979	98	47 - 147	
Di-n-butyl phthalate	1.00	1.04	104	72 - 132	
4,6-Dinitro-2-methylphenol	5.00	4.64	93	36 - 127	
2,4-Dinitrophenol	5.00	2.83	57	15 - 140	
2,4-Dinitrotoluene	1.00	0.929	93	57 - 128	
2,6-Dinitrotoluene	1.00	0.953	95	66 - 131	
Di-n-octyl phthalate	1.00	0.999	100	49 - 149	
Fluoranthene	1.00	0.951	95	64 - 124	
Fluorene	1.00	0.898	90	69 - 129	

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

### Lab Control Spike - Batch: 580-29965

**Method: 8270C**  
**Preparation: 3510C**

Lab Sample ID: LCS 580-29965/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/09/2008 0151  
Date Prepared: 04/04/2008 1002

Analysis Batch: 580-30221  
Prep Batch: 580-29965  
Units: ug/L

Instrument ID: SEA040  
Lab File ID: ak015014.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1 mL  
Injection Volume: 1.0 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorobenzene	1.00	0.887	89	67 - 128	
Hexachlorobutadiene	1.00	0.652	65	54 - 135	
Hexachlorocyclopentadiene	1.00	ND	68	45 - 126	
Hexachloroethane	1.00	0.654	65	60 - 125	
Indeno[1,2,3-cd]pyrene	1.00	0.946	95	58 - 139	
Isophorone	1.00	0.878	88	62 - 122	
1-Methylnaphthalene	1.00	0.779	78	47 - 148	
2-Methylnaphthalene	1.00	0.775	77	64 - 125	
2-Methylphenol	1.00	0.577	58	35 - 106	
3 & 4 Methylphenol	1.00	0.543	54	21 - 102	
Naphthalene	1.00	0.738	74	49 - 130	
2-Nitroaniline	1.00	0.866	87	65 - 130	
3-Nitroaniline	1.00	0.844	84	90 - 176	*
4-Nitroaniline	1.00	1.04	104	58 - 143	
Nitrobenzene	1.00	0.834	83	66 - 131	
2-Nitrophenol	1.00	0.742	74	55 - 131	
4-Nitrophenol	5.00	1.40	28	10 - 135	
N-Nitrosodi-n-propylamine	1.00	0.856	86	47 - 142	
N-Nitrosodiphenylamine	1.00	0.908	91	90 - 150	
Pentachlorophenol	1.00	0.868	87	43 - 118	
Phenanthrene	1.00	0.928	93	62 - 128	
Phenol	1.00	ND	29	10 - 70	
Pyrene	1.00	0.975	98	58 - 140	
1,2,4-Trichlorobenzene	1.00	0.694	69	59 - 130	
2,4,5-Trichlorophenol	1.00	0.856	86	64 - 124	
2,4,6-Trichlorophenol	1.00	0.871	87	62 - 127	
2,2'-oxybis[1-chloropropane]	1.00	0.797	80	50 - 135	
Surrogate			% Rec	Acceptance Limits	
2-Fluorobiphenyl			72	35 - 143	
2-Fluorophenol			43	10 - 120	
Nitrobenzene-d5			70	34 - 146	
Phenol-d5			27	10 - 102	
Terphenyl-d14			86	35 - 166	
2,4,6-Tribromophenol			78	29 - 151	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-30013**

**Method: NWTPH-Gx  
Preparation: 5030B**

Lab Sample ID: MB 580-30013/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/04/2008 1257  
Date Prepared: 04/04/2008 1257

Analysis Batch: 580-30013  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA041  
Lab File ID: Gx0013036.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
Gasoline	ND		50	50
Surrogate	% Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	107		50 - 150	
Trifluorotoluene (Surr)	110		50 - 150	
Ethylbenzene-d10	109		50 - 150	
Fluorobenzene (Surr)	105		50 - 150	
Toluene-d8 (Surr)	111		50 - 150	

**Lab Control Spike - Batch: 580-30013**

**Method: NWTPH-Gx  
Preparation: 5030B**

Lab Sample ID: LCS 580-30013/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/04/2008 1319  
Date Prepared: 04/04/2008 1319

Analysis Batch: 580-30013  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA041  
Lab File ID: Gx0013037.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Gasoline	1280	1260	99	79 - 110	
Surrogate		% Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)		110		50 - 150	
Trifluorotoluene (Surr)		108		50 - 150	
Ethylbenzene-d10		108		50 - 150	
Fluorobenzene (Surr)		112		50 - 150	
Toluene-d8 (Surr)		107		50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 680-102621**

**Method: 8011**  
**Preparation: 8011**

Lab Sample ID: MB 680-102621/4-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/09/2008 1617  
Date Prepared: 04/09/2008 1138

Analysis Batch: 680-102817  
Prep Batch: 680-102621  
Units: ug/L

Instrument ID: GC SemiVolatiles - X  
Lab File ID: xd090005.d  
Initial Weight/Volume: 35 mL  
Final Weight/Volume: 2 mL  
Injection Volume: 1 uL  
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Ethylene Dibromide	ND		0.0042	0.020
Surrogate	% Rec		Acceptance Limits	
1,2,3-Trichloropropane-(Surr)	141		60 - 144	

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 680-102621**

**Method: 8011**  
**Preparation: 8011**

LCS Lab Sample ID: LCS 680-102621/5-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/09/2008 1630  
Date Prepared: 04/09/2008 1138

Analysis Batch: 680-102817  
Prep Batch: 680-102621  
Units: ug/L

Instrument ID: GC SemiVolatiles - X  
Lab File ID: xd090006.d  
Initial Weight/Volume: 35 mL  
Final Weight/Volume: 2 mL  
Injection Volume: 1 uL  
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 680-102621/6-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/09/2008 1643  
Date Prepared: 04/09/2008 1138

Analysis Batch: 680-102817  
Prep Batch: 680-102621  
Units: ug/L

Instrument ID: GC SemiVolatiles - X  
Lab File ID: xd090007.d  
Initial Weight/Volume: 35 mL  
Final Weight/Volume: 2 mL  
Injection Volume: 1 uL  
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ethylene Dibromide	98	94	66 - 126	4	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
1,2,3-Trichloropropane-(Surr)	120	132			60 - 144		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-29911**

**Method: 8082**  
**Preparation: 3510C**

Lab Sample ID: MB 580-29911/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/04/2008 0536  
Date Prepared: 04/03/2008 0914

Analysis Batch: 580-30015  
Prep Batch: 580-29911  
Units: ug/L

Instrument ID: SEA034  
Lab File ID: PCB15066.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
PCB-1016	ND		0.50	0.50
PCB-1221	ND		0.50	0.50
PCB-1232	ND		0.50	0.50
PCB-1242	ND		0.50	0.50
PCB-1248	ND		0.50	0.50
PCB-1254	ND		0.50	0.50
PCB-1260	ND		0.50	0.50

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	118	40 - 135
Tetrachloro-m-xylene	96	60 - 150

**Lab Control Spike - Batch: 580-29911**

**Method: 8082**  
**Preparation: 3510C**

Lab Sample ID: LCS 580-29911/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/04/2008 0600  
Date Prepared: 04/03/2008 0914

Analysis Batch: 580-30015  
Prep Batch: 580-29911  
Units: ug/L

Instrument ID: SEA034  
Lab File ID: PCB15067.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	1.00	0.873	87	44 - 127	
PCB-1260	1.00	1.07	107	53 - 130	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	108	40 - 135
Tetrachloro-m-xylene	96	60 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

### Method Blank - Batch: 580-29950

**Method: NWTPH-Dx**  
**Preparation: 3510C**

Lab Sample ID: MB 580-29950/1-B  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/09/2008 1531  
Date Prepared: 04/04/2008 0735

Analysis Batch: 580-30150  
Prep Batch: 580-29950  
Units: ug/L

Instrument ID: SEA013  
Lab File ID: FA34399.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 5 mL  
Injection Volume:

Analyte	Result	Qual	RL	RL
Motor Oil (>C24-C36)	ND		250	250
#2 Diesel (C10-C24)	ND		130	130
Surrogate	% Rec		Acceptance Limits	
o-Terphenyl	112		50 - 150	

### Lab Control Spike - Batch: 580-29950

**Method: NWTPH-Dx**  
**Preparation: 3510C**

Lab Sample ID: LCS 580-29950/2-B  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/09/2008 1551  
Date Prepared: 04/04/2008 0735

Analysis Batch: 580-30150  
Prep Batch: 580-29950  
Units: ug/L

Instrument ID: SEA013  
Lab File ID: FA34400.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 5 mL  
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Motor Oil (>C24-C36)	5000	4560	91	70 - 130	
#2 Diesel (C10-C24)	5000	4760	95	70 - 130	
Surrogate		% Rec		Acceptance Limits	
o-Terphenyl		116		50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-30003**

Lab Sample ID: MB 580-30003/14-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 04/07/2008 1414  
 Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30037  
 Prep Batch: 580-30003  
 Units: ug/L

**Method: 6010B  
 Preparation: 3005A  
 Total Recoverable**

Instrument ID: SEA027  
 Lab File ID: N/A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Barium	ND		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

**Lab Control Spike/  
 Lab Control Spike Duplicate Recovery Report - Batch: 580-30003**

LCS Lab Sample ID: LCS 580-30003/15-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 04/07/2008 1436  
 Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30037  
 Prep Batch: 580-30003  
 Units: ug/L

**Method: 6010B  
 Preparation: 3005A  
 Total Recoverable**

Instrument ID: SEA027  
 Lab File ID: N/A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-30003/16-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 04/07/2008 1440  
 Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30037  
 Prep Batch: 580-30003  
 Units: ug/L

Instrument ID: SEA027  
 Lab File ID: N/A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Barium	104	104	80 - 120	0	20		
Chromium	100	100	80 - 120	1	20		
Selenium	99	98	80 - 120	0	20		
Silver	102	102	80 - 120	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-30003**

**Method: 6010B  
Preparation: 3005A  
Total Recoverable**

MS Lab Sample ID: 580-9494-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1425  
Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30037  
Prep Batch: 580-30003

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-9494-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1429  
Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30037  
Prep Batch: 580-30003

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Barium	105	106	75 - 125	1	20		
Chromium	103	104	75 - 125	1	20		
Selenium	100	100	75 - 125	0	20		
Silver	104	106	75 - 125	1	20		

**Duplicate - Batch: 580-30003**

**Method: 6010B  
Preparation: 3005A  
Total Recoverable**

Lab Sample ID: 580-9494-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1422  
Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30037  
Prep Batch: 580-30003  
Units: ug/L

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Barium	25	24.4	2	20	
Chromium	ND	0.402	NC	20	
Selenium	ND	-6.74	NC	20	
Silver	ND	0.241	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-30057**

**Method: 6010B  
Preparation: N/A**

Lab Sample ID: MB 580-30057/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1607  
Date Prepared: N/A

Analysis Batch: 580-30057  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Barium	ND		10	10
Chromium	ND		25	25
Selenium	ND		100	100
Silver	ND		20	20

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-30057**

**Method: 6010B  
Preparation: N/A**

LCS Lab Sample ID: LCS 580-30057/6  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1628  
Date Prepared: N/A

Analysis Batch: 580-30057  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 54 mL

LCSD Lab Sample ID: LCSD 580-30057/7  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1632  
Date Prepared: N/A

Analysis Batch: 580-30057  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 54 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Barium	112	114	80 - 120	2	20		
Chromium	108	110	80 - 120	2	20		
Selenium	108	109	80 - 120	1	20		
Silver	112	112	80 - 120	0	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-30057**

**Method: 6010B  
Preparation: N/A**

MS Lab Sample ID: 580-9494-9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1618  
Date Prepared: N/A

Analysis Batch: 580-30057  
Prep Batch: N/A

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 54 mL

MSD Lab Sample ID: 580-9494-9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1621  
Date Prepared: N/A

Analysis Batch: 580-30057  
Prep Batch: N/A

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 54 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Barium	114	107	75 - 125	7	20		
Chromium	113	106	75 - 125	7	20		
Selenium	118	110	75 - 125	7	20		
Silver	85	84	75 - 125	1	20		

**Duplicate - Batch: 580-30057**

**Method: 6010B  
Preparation: N/A**

Lab Sample ID: 580-9494-9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1616  
Date Prepared: N/A

Analysis Batch: 580-30057  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Barium	21	20.7	0	20	
Chromium	ND	1.85	NC	20	
Selenium	ND	-7.31	NC	20	
Silver	ND	0.511	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-30003**

Lab Sample ID: MB 580-30003/14-A  
 Client Matrix: Water  
 Dilution: 5.0  
 Date Analyzed: 04/07/2008 1216  
 Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30046  
 Prep Batch: 580-30003  
 Units: ug/L

**Method: 6020  
 Preparation: 3005A  
 Total Recoverable**

Instrument ID: SEA044  
 Lab File ID: N/A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Arsenic	ND		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	ND		2.0	2.0

**Lab Control Spike/  
 Lab Control Spike Duplicate Recovery Report - Batch: 580-30003**

LCS Lab Sample ID: LCS 580-30003/15-A  
 Client Matrix: Water  
 Dilution: 50  
 Date Analyzed: 04/07/2008 1252  
 Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30046  
 Prep Batch: 580-30003  
 Units: ug/L

**Method: 6020  
 Preparation: 3005A  
 Total Recoverable**

Instrument ID: SEA044  
 Lab File ID: N/A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-30003/16-A  
 Client Matrix: Water  
 Dilution: 50  
 Date Analyzed: 04/07/2008 1257  
 Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30046  
 Prep Batch: 580-30003  
 Units: ug/L

Instrument ID: SEA044  
 Lab File ID: N/A  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	97	97	80 - 120	0	20		
Cadmium	96	96	80 - 120	0	20		
Lead	90	91	80 - 120	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-30003**

**Method: 6020  
Preparation: 3005A  
Total Recoverable**

MS Lab Sample ID: 580-9494-1  
Client Matrix: Water  
Dilution: 50  
Date Analyzed: 04/07/2008 1237  
Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30046  
Prep Batch: 580-30003

Instrument ID: SEA044  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-9494-1  
Client Matrix: Water  
Dilution: 50  
Date Analyzed: 04/07/2008 1242  
Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30046  
Prep Batch: 580-30003

Instrument ID: SEA044  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	98	106	75 - 125	9	20		
Cadmium	98	107	75 - 125	9	20		
Lead	94	99	75 - 125	5	20		

**Duplicate - Batch: 580-30003**

**Method: 6020  
Preparation: 3005A  
Total Recoverable**

Lab Sample ID: 580-9494-1  
Client Matrix: Water  
Dilution: 5.0  
Date Analyzed: 04/07/2008 1231  
Date Prepared: 04/07/2008 0906

Analysis Batch: 580-30046  
Prep Batch: 580-30003  
Units: ug/L

Instrument ID: SEA044  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Arsenic	ND	1.93	NC	20	
Cadmium	ND	0.0257	NC	20	
Lead	ND	1.98	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-30046**

**Method: 6020  
Preparation: N/A**

Lab Sample ID: MB 580-30046/18  
Client Matrix: Water  
Dilution: 5.0  
Date Analyzed: 04/07/2008 1415  
Date Prepared: N/A

Analysis Batch: 580-30046  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA044  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Arsenic	ND		2.0	2.0
Cadmium	ND		2.0	2.0
Lead	ND		2.0	2.0

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-30046**

**Method: 6020  
Preparation: N/A**

LCS Lab Sample ID: LCS 580-30046/23  
Client Matrix: Water  
Dilution: 50  
Date Analyzed: 04/07/2008 1451  
Date Prepared: N/A

Analysis Batch: 580-30046  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA044  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-30046/24  
Client Matrix: Water  
Dilution: 50  
Date Analyzed: 04/07/2008 1456  
Date Prepared: N/A

Analysis Batch: 580-30046  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA044  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	94	96	80 - 120	2	20		
Cadmium	97	95	80 - 120	2	20		
Lead	91	91	80 - 120	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-30046**

**Method: 6020  
Preparation: N/A**

MS Lab Sample ID: 580-9494-9  
Client Matrix: Water  
Dilution: 50  
Date Analyzed: 04/07/2008 1435  
Date Prepared: N/A

Analysis Batch: 580-30046  
Prep Batch: N/A

Instrument ID: SEA044  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-9494-9  
Client Matrix: Water  
Dilution: 50  
Date Analyzed: 04/07/2008 1441  
Date Prepared: N/A

Analysis Batch: 580-30046  
Prep Batch: N/A

Instrument ID: SEA044  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	93	92	75 - 125	1	20		
Cadmium	99	96	75 - 125	3	20		
Lead	92	92	75 - 125	1	20		

**Duplicate - Batch: 580-30046**

**Method: 6020  
Preparation: N/A**

Lab Sample ID: 580-9494-9  
Client Matrix: Water  
Dilution: 5.0  
Date Analyzed: 04/07/2008 1430  
Date Prepared: N/A

Analysis Batch: 580-30046  
Prep Batch: N/A  
Units: ug/L

Instrument ID: SEA044  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Arsenic	2.9	2.86	0	20	
Cadmium	ND	0.00239	NC	20	
Lead	ND	0.0174	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-30019**

**Method: 7470A**  
**Preparation: 7470A**

Lab Sample ID: MB 580-30019/13-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1316  
Date Prepared: 04/07/2008 1131

Analysis Batch: 580-30047  
Prep Batch: 580-30019  
Units: ug/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Mercury	ND		0.20	0.20

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-30019**

**Method: 7470A**  
**Preparation: 7470A**

LCS Lab Sample ID: LCS 580-30019/14-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1320  
Date Prepared: 04/07/2008 1131

Analysis Batch: 580-30047  
Prep Batch: 580-30019  
Units: ug/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-30019/15-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1324  
Date Prepared: 04/07/2008 1131

Analysis Batch: 580-30047  
Prep Batch: 580-30019  
Units: ug/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	106	104	75 - 125	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-30019**

**Method: 7470A  
Preparation: 7470A  
Dissolved**

MS Lab Sample ID: 580-9494-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1335  
Date Prepared: 04/07/2008 1131

Analysis Batch: 580-30047  
Prep Batch: 580-30019

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-9494-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1338  
Date Prepared: 04/07/2008 1131

Analysis Batch: 580-30047  
Prep Batch: 580-30019

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	110	106	75 - 125	4	20		

**Duplicate - Batch: 580-30019**

**Method: 7470A  
Preparation: 7470A  
Dissolved**

Lab Sample ID: 580-9494-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1331  
Date Prepared: 04/07/2008 1131

Analysis Batch: 580-30047  
Prep Batch: 580-30019  
Units: ug/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	ND	0.0100	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Method Blank - Batch: 580-30021**

**Method: 7470A**  
**Preparation: 7470A**

Lab Sample ID: MB 580-30021/13-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1423  
Date Prepared: 04/07/2008 1155

Analysis Batch: 580-30048  
Prep Batch: 580-30021  
Units: ug/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Mercury	ND		0.20	0.20

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-30021**

**Method: 7470A**  
**Preparation: 7470A**

LCS Lab Sample ID: LCS 580-30021/14-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1427  
Date Prepared: 04/07/2008 1155

Analysis Batch: 580-30048  
Prep Batch: 580-30021  
Units: ug/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-30021/15-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1430  
Date Prepared: 04/07/2008 1155

Analysis Batch: 580-30048  
Prep Batch: 580-30021  
Units: ug/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	105	102	75 - 125	3	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-30021**

**Method: 7470A  
Preparation: 7470A**

MS Lab Sample ID: 580-9494-9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1516  
Date Prepared: 04/07/2008 1155

Analysis Batch: 580-30048  
Prep Batch: 580-30021

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-9494-9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1520  
Date Prepared: 04/07/2008 1155

Analysis Batch: 580-30048  
Prep Batch: 580-30021

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	109	101	75 - 125	8	20		

**Duplicate - Batch: 580-30021**

**Method: 7470A  
Preparation: 7470A**

Lab Sample ID: 580-9494-9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1513  
Date Prepared: 04/07/2008 1155

Analysis Batch: 580-30048  
Prep Batch: 580-30021  
Units: ug/L

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	ND	0.0150	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## DATA REPORTING QUALIFIERS

Client: GeoEngineers Inc

Job Number: 580-9494-1

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
GC/MS VOA		
	X	Surrogate exceeds the control limits
GC/MS Semi VOA		
	*	LCS or LCSD exceeds the control limits
	X	Surrogate exceeds the control limits
GC Semi VOA		
	X	Surrogate exceeds the control limits

Client: GeoEngineers Project Manager: Kevin Brown Date: 3/31/08 Chain of Custody Number: 00532

Address: 1101 S. Fawcett STE 200 Telephone Number (Area Code)/Fax Number: 253 383 4440 Lab Number: 4494 Page: 1 of 1

City: Tacoma State: WA Zip Code: 98402 Site Contact: Lab Contact

Project Name and Location (State): City of Olympia 0415-049-02 Carrier/Waybill Number: \_\_\_\_\_

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach if interspace is needed)	Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH			
1 MW6-033108-W	3/31/08	1640	X											X	X DX w/ Slice G-1
2 MW2-033108-W	3/31/08	1520												X	Cleanup
3 MW3-033108-W	3/31/08	1335												X	
4 MW4-033108-W	3/31/08	1315												X	
5 MW4-033108-W	3/31/08	1445												X	
6 MW5-033108-W	3/31/08	1610												X	
7 MW7-033108-W	3/31/08	1750												X	

QC Requirements (Specify):

1. Relinquished By: [Signature] Date: 3/31/08 Time: 1430

2. Relinquished By: [Signature] Date: 3/31/08 Time: 10:50

3. Relinquished By: [Signature] Date: 3/31/08 Time: 10:50

Comments: B/G 5.1  
R/W 4.6  
F023.5.0



# Login Sample Receipt Check List

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Login Number: 9494**  
**Creator: Urness, Richard**  
**List Number: 1**

**List Source: TestAmerica Tacoma**

<b>Question</b>	<b>T / F / NA</b>	<b>Comment</b>
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

# Login Sample Receipt Check List

Client: GeoEngineers Inc

Job Number: 580-9494-1

**Login Number: 9494**

**Creator: Hall, Karl I**

**List Number: 1**

**List Source: TestAmerica Savannah**

**List Creation: 04/05/08 11:09 AM**

<b>Question</b>	<b>T / F / NA</b>	<b>Comment</b>
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

## ANALYTICAL REPORT

Job Number: 580-9460-1

Job Description: 0415-049-02-City of Olympia

For:

GeoEngineers Inc  
1101 Fawcett, Suite 200  
Tacoma, WA 98402

Attention: Kevin M Broom



---

Heather Curbow  
Project Manager I  
heather.curbow@testamericainc.com  
04/14/2008

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This report shall not be reproduced except in full, without prior express written approval by the laboratory. The results relate only to the item(s) tested and the sample(s) as received by the laboratory.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted in the case narrative.

**TestAmerica Laboratories, Inc.**

TestAmerica Tacoma 5755 8th Street East, Tacoma, WA 98424  
Tel (253) 922-2310 Fax (253) 922-5047 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative**  
**580-J9460-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method(s) 5035: 8035/8260B

Due to percent moisture values greater than 10%, the final volumes for all samples associated with job 9460 and 9461 were corrected for solvent/water dilution effect. Corrected FV= ((g of sample \* % moisture/100) + ml of MeOH) \* 40 (dilution factor)

No other analytical or quality issues were noted.

**GC/MS Semi VOA**

No analytical or quality issues were noted.

**GC Semi VOA**

Method(s) 8082:

The laboratory control standard (LCS) for preparation batch 29867 exceeded control limits for PCB 1260. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has been reported.

Several samples including the MS/MSD had high recoveries for at least one or both surrogates. The recovery was high and no target analytes were detected in the samples. No further action was taken on this outlier.

No other analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.



## METHOD SUMMARY

Client: GeoEngineers Inc

Job Number: 580-9460-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Solid</b>			
Volatile Organic Compounds by GC/MS	TAL TAC	SW846 8260B	
Closed System Purge & Trap/Field Methanol	TAL TAC		SW846 5035
Volatile Petroleum Products	TAL TAC	NWTPH NWTPH-Gx	
Closed System Purge & Trap/Field Methanol	TAL TAC		SW846 5035
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	TAL TAC	SW846 8270C	
Ultrasonic Extraction (Low Level)	TAL TAC		SW846 3550B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL TAC	SW846 8082	
Ultrasonic Extraction (Low Level)	TAL TAC		SW846 3550B
Semi-Volatile Petroleum Products by NWTPH-Dx	TAL TAC	NWTPH NWTPH-Dx	
Ultrasonic Extraction	TAL TAC		SW846 3550B
Silica Gel Cleanup	TAL TAC		SW846 3630C
Inductively Coupled Plasma - Atomic Emission Spectrometry	TAL TAC	SW846 6010B	
Acid Digestion of Sediments, Sludges, and Soils	TAL TAC		SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL TAC	SW846 7471A	
Mercury in Solid or Semi-Solid Waste (Manual Cold	TAL TAC		SW846 7471A

**Lab References:**

TAL TAC = TestAmerica Tacoma

**Method References:**

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: GeoEngineers Inc

Job Number: 580-9460-1

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
580-9460-2	MW8-032708-6	Solid	03/27/2008 0830	03/28/2008 1410
580-9460-3	MW8-032708-9	Solid	03/27/2008 0835	03/28/2008 1410
580-9460-5	MW7-032708-7	Solid	03/27/2008 1010	03/28/2008 1410
580-9460-6	MW7-032708-10	Solid	03/27/2008 1020	03/28/2008 1410
580-9460-8	MW6-032708-7	Solid	03/27/2008 1125	03/28/2008 1410
580-9460-9	MW6-032708-10	Solid	03/27/2008 1130	03/28/2008 1410
580-9460-11	MW9-032708-7	Solid	03/27/2008 1402	03/28/2008 1410
580-9460-12	MW9-032708-10	Solid	03/27/2008 1408	03/28/2008 1410

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-6**

Lab Sample ID: 580-9460-2

Date Sampled: 03/27/2008 0830

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100964.D
Dilution:	1.0		Initial Weight/Volume: 11.18 g
Date Analyzed:	04/02/2008 1055		Final Weight/Volume: 401.8 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0060	0.043
Chloromethane		ND		0.0078	0.043
Vinyl chloride		ND		0.0056	0.017
Bromomethane		ND		0.030	0.21
Chloroethane		ND		0.031	0.21
Trichlorofluoromethane		ND		0.0041	0.043
1,1-Dichloroethene		ND		0.0057	0.017
Methylene Chloride		0.011	J	0.0065	0.043
trans-1,2-Dichloroethene		ND		0.0046	0.043
1,1-Dichloroethane		ND		0.010	0.043
2,2-Dichloropropane		ND		0.0050	0.043
cis-1,2-Dichloroethene		ND		0.0064	0.043
Chlorobromomethane		ND		0.0051	0.043
Chloroform		ND		0.0041	0.043
1,1,1-Trichloroethane		ND		0.0042	0.017
Carbon tetrachloride		ND		0.0032	0.017
1,1-Dichloropropene		ND		0.0033	0.043
1,1,1,2-Tetrachloroethane		ND		0.0041	0.043
Benzene		ND		0.0030	0.0086
1,2-Dichloroethane		ND		0.0087	0.043
Trichloroethene		ND		0.0032	0.017
1,2-Dichloropropane		ND		0.0027	0.0086
Dibromomethane		ND		0.0078	0.043
Dichlorobromomethane		ND		0.0030	0.043
cis-1,3-Dichloropropene		ND		0.0030	0.043
Toluene		ND		0.0079	0.043
trans-1,3-Dichloropropene		ND		0.0030	0.043
1,1,2-Trichloroethane		ND		0.0039	0.043
Tetrachloroethene		ND		0.0078	0.027
1,3-Dichloropropane		ND		0.0045	0.017
Chlorodibromomethane		ND		0.0027	0.043
Ethylene Dibromide		ND		0.0071	0.043
Chlorobenzene		ND		0.013	0.043
Ethylbenzene		ND		0.0077	0.043
1,1,2,2-Tetrachloroethane		ND		0.0026	0.0086
m-Xylene & p-Xylene		ND		0.016	0.043
o-Xylene		ND		0.0077	0.043
Styrene		ND		0.0034	0.043
Bromoform		ND		0.0030	0.043
Isopropylbenzene		ND		0.0065	0.043
Bromobenzene		ND		0.0039	0.043
N-Propylbenzene		ND		0.0074	0.043
1,2,3-Trichloropropane		ND		0.0076	0.043
2-Chlorotoluene		ND		0.0062	0.043

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-6**

Lab Sample ID: 580-9460-2

Date Sampled: 03/27/2008 0830

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-29905

Instrument ID: SEA043

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: VB00100964.D

Dilution: 1.0

Initial Weight/Volume: 11.18 g

Date Analyzed: 04/02/2008 1055

Final Weight/Volume: 401.8 mL

Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0064	0.043
4-Chlorotoluene		ND		0.0037	0.043
tert-Butylbenzene		ND		0.0036	0.043
1,2,4-Trimethylbenzene		ND		0.0074	0.043
sec-Butylbenzene		ND		0.0017	0.043
1,3-Dichlorobenzene		ND		0.0044	0.043
4-Isopropyltoluene		ND		0.0030	0.043
1,4-Dichlorobenzene		ND		0.0021	0.043
n-Butylbenzene		ND		0.0026	0.043
1,2-Dichlorobenzene		ND		0.0036	0.043
1,2-Dibromo-3-Chloropropane		ND		0.0094	0.043
1,2,4-Trichlorobenzene		ND		0.0042	0.043
1,2,3-Trichlorobenzene		ND		0.0051	0.043
Hexachlorobutadiene		ND		0.0071	0.043
Naphthalene		ND		0.0028	0.043

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	99	75 - 125
Fluorobenzene (Surr)	94	75 - 125
Toluene-d8 (Surr)	103	85 - 115
4-Bromofluorobenzene (Surr)	106	85 - 120
Trifluorotoluene (Surr)	95	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-9**

Lab Sample ID: 580-9460-3

Date Sampled: 03/27/2008 0835

Client Matrix: Solid

% Moisture: 22.2

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100966.D
Dilution:	1.0		Initial Weight/Volume: 11.14 g
Date Analyzed:	04/02/2008 1118		Final Weight/Volume: 402.5 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0065	0.046
Chloromethane		ND		0.0085	0.046
Vinyl chloride		ND		0.0060	0.019
Bromomethane		ND		0.033	0.23
Chloroethane		ND		0.034	0.23
Trichlorofluoromethane		ND		0.0044	0.046
1,1-Dichloroethene		ND		0.0062	0.019
Methylene Chloride		0.0092	J B	0.0071	0.046
trans-1,2-Dichloroethene		ND		0.0050	0.046
1,1-Dichloroethane		ND		0.011	0.046
2,2-Dichloropropane		ND		0.0055	0.046
cis-1,2-Dichloroethene		ND		0.0070	0.046
Chlorobromomethane		ND		0.0056	0.046
Chloroform		ND		0.0044	0.046
1,1,1-Trichloroethane		ND		0.0045	0.019
Carbon tetrachloride		ND		0.0035	0.019
1,1-Dichloropropene		ND		0.0036	0.046
1,1,1,2-Tetrachloroethane		ND		0.0044	0.046
Benzene		ND		0.0033	0.0093
1,2-Dichloroethane		ND		0.0094	0.046
Trichloroethene		ND		0.0035	0.019
1,2-Dichloropropane		ND		0.0029	0.0093
Dibromomethane		ND		0.0085	0.046
Dichlorobromomethane		ND		0.0033	0.046
cis-1,3-Dichloropropene		ND		0.0033	0.046
Toluene		ND		0.0086	0.046
trans-1,3-Dichloropropene		ND		0.0033	0.046
1,1,2-Trichloroethane		ND		0.0042	0.046
Tetrachloroethene		ND		0.0085	0.029
1,3-Dichloropropane		ND		0.0049	0.019
Chlorodibromomethane		ND		0.0029	0.046
Ethylene Dibromide		ND		0.0077	0.046
Chlorobenzene		ND		0.014	0.046
Ethylbenzene		ND		0.0084	0.046
1,1,2,2-Tetrachloroethane		ND		0.0028	0.0093
m-Xylene & p-Xylene		ND		0.017	0.046
o-Xylene		ND		0.0084	0.046
Styrene		ND		0.0037	0.046
Bromoform		ND		0.0033	0.046
Isopropylbenzene		ND		0.0071	0.046
Bromobenzene		ND		0.0042	0.046
N-Propylbenzene		ND		0.0080	0.046
1,2,3-Trichloropropane		ND		0.0082	0.046
2-Chlorotoluene		ND		0.0067	0.046

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-9**

Lab Sample ID: 580-9460-3

Date Sampled: 03/27/2008 0835

Client Matrix: Solid

% Moisture: 22.2

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-29905

Instrument ID: SEA043

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: VB00100966.D

Dilution: 1.0

Initial Weight/Volume: 11.14 g

Date Analyzed: 04/02/2008 1118

Final Weight/Volume: 402.5 mL

Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0070	0.046
4-Chlorotoluene		ND		0.0041	0.046
tert-Butylbenzene		ND		0.0039	0.046
1,2,4-Trimethylbenzene		ND		0.0080	0.046
sec-Butylbenzene		ND		0.0019	0.046
1,3-Dichlorobenzene		ND		0.0048	0.046
4-Isopropyltoluene		ND		0.0033	0.046
1,4-Dichlorobenzene		ND		0.0023	0.046
n-Butylbenzene		ND		0.0028	0.046
1,2-Dichlorobenzene		ND		0.0039	0.046
1,2-Dibromo-3-Chloropropane		ND		0.010	0.046
1,2,4-Trichlorobenzene		ND		0.0045	0.046
1,2,3-Trichlorobenzene		ND		0.0056	0.046
Hexachlorobutadiene		ND		0.0077	0.046
Naphthalene		ND		0.0030	0.046

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	101	75 - 125
Fluorobenzene (Surr)	91	75 - 125
Toluene-d8 (Surr)	106	85 - 115
4-Bromofluorobenzene (Surr)	103	85 - 120
Trifluorotoluene (Surr)	95	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-7**

Lab Sample ID: 580-9460-5

Date Sampled: 03/27/2008 1010

Client Matrix: Solid

% Moisture: 22.8

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100968.D
Dilution:	1.0		Initial Weight/Volume: 9.9 g
Date Analyzed:	04/02/2008 1141		Final Weight/Volume: 402.2 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0074	0.053
Chloromethane		ND		0.0096	0.053
Vinyl chloride		0.11		0.0068	0.021
Bromomethane		ND		0.037	0.26
Chloroethane		ND		0.038	0.26
Trichlorofluoromethane		ND		0.0050	0.053
1,1-Dichloroethene		ND		0.0070	0.021
Methylene Chloride		0.014	J B	0.0080	0.053
trans-1,2-Dichloroethene		0.029	J	0.0057	0.053
1,1-Dichloroethane		ND		0.013	0.053
2,2-Dichloropropane		ND		0.0062	0.053
cis-1,2-Dichloroethene		0.17		0.0079	0.053
Chlorobromomethane		ND		0.0063	0.053
Chloroform		ND		0.0050	0.053
1,1,1-Trichloroethane		ND		0.0051	0.021
Carbon tetrachloride		ND		0.0039	0.021
1,1-Dichloropropene		ND		0.0041	0.053
1,1,1,2-Tetrachloroethane		ND		0.0050	0.053
Benzene		0.070		0.0037	0.011
1,2-Dichloroethane		ND		0.011	0.053
Trichloroethene		0.045		0.0039	0.021
1,2-Dichloropropane		ND		0.0033	0.011
Dibromomethane		ND		0.0096	0.053
Dichlorobromomethane		ND		0.0037	0.053
cis-1,3-Dichloropropene		ND		0.0037	0.053
Toluene		ND		0.0097	0.053
trans-1,3-Dichloropropene		ND		0.0037	0.053
1,1,2-Trichloroethane		ND		0.0047	0.053
Tetrachloroethene		ND		0.0096	0.033
1,3-Dichloropropane		ND		0.0055	0.021
Chlorodibromomethane		ND		0.0033	0.053
Ethylene Dibromide		ND		0.0087	0.053
Chlorobenzene		ND		0.016	0.053
Ethylbenzene		ND		0.0095	0.053
1,1,2,2-Tetrachloroethane		ND		0.0032	0.011
m-Xylene & p-Xylene		ND		0.020	0.053
o-Xylene		ND		0.0095	0.053
Styrene		ND		0.0042	0.053
Bromoform		ND		0.0037	0.053
Isopropylbenzene		ND		0.0080	0.053
Bromobenzene		ND		0.0047	0.053
N-Propylbenzene		ND		0.0091	0.053
1,2,3-Trichloropropane		ND		0.0093	0.053
2-Chlorotoluene		ND		0.0076	0.053

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

Client Sample ID: MW7-032708-7

Lab Sample ID: 580-9460-5

Date Sampled: 03/27/2008 1010

Client Matrix: Solid

% Moisture: 22.8

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B Analysis Batch: 580-29905 Instrument ID: SEA043  
Preparation: 5035-Medium Prep Batch: 580-29857 Lab File ID: VB00100968.D  
Dilution: 1.0 Initial Weight/Volume: 9.9 g  
Date Analyzed: 04/02/2008 1141 Final Weight/Volume: 402.2 mL  
Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0079	0.053
4-Chlorotoluene		ND		0.0046	0.053
tert-Butylbenzene		ND		0.0045	0.053
1,2,4-Trimethylbenzene		ND		0.0091	0.053
sec-Butylbenzene		ND		0.0021	0.053
1,3-Dichlorobenzene		ND		0.0054	0.053
4-Isopropyltoluene		0.0049	J	0.0037	0.053
1,4-Dichlorobenzene		ND		0.0026	0.053
n-Butylbenzene		ND		0.0032	0.053
1,2-Dichlorobenzene		ND		0.0045	0.053
1,2-Dibromo-3-Chloropropane		ND		0.012	0.053
1,2,4-Trichlorobenzene		ND		0.0051	0.053
1,2,3-Trichlorobenzene		ND		0.0063	0.053
Hexachlorobutadiene		ND		0.0087	0.053
Naphthalene		ND		0.0034	0.053
Surrogate		%Rec		Acceptance Limits	
Ethylbenzene-d10		101		75 - 125	
Fluorobenzene (Surr)		92		75 - 125	
Toluene-d8 (Surr)		104		85 - 115	
4-Bromofluorobenzene (Surr)		106		85 - 120	
Trifluorotoluene (Surr)		88		75 - 125	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-10**

Lab Sample ID: 580-9460-6

Date Sampled: 03/27/2008 1020

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100970.D
Dilution:	1.0		Initial Weight/Volume: 6.15 g
Date Analyzed:	04/02/2008 1204		Final Weight/Volume: 401.4 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.012	0.085
Chloromethane		ND		0.015	0.085
Vinyl chloride		0.034	J	0.011	0.034
Bromomethane		ND		0.059	0.42
Chloroethane		ND		0.062	0.42
Trichlorofluoromethane		ND		0.0081	0.085
1,1-Dichloroethene		ND		0.011	0.034
Methylene Chloride		0.019	J B	0.013	0.085
trans-1,2-Dichloroethene		ND		0.0091	0.085
1,1-Dichloroethane		ND		0.020	0.085
2,2-Dichloropropane		ND		0.010	0.085
cis-1,2-Dichloroethene		ND		0.013	0.085
Chlorobromomethane		ND		0.010	0.085
Chloroform		ND		0.0081	0.085
1,1,1-Trichloroethane		ND		0.0083	0.034
Carbon tetrachloride		ND		0.0064	0.034
1,1-Dichloropropene		ND		0.0066	0.085
1,1,1,2-Tetrachloroethane		ND		0.0081	0.085
Benzene		0.0089	J	0.0059	0.017
1,2-Dichloroethane		ND		0.017	0.085
Trichloroethene		ND		0.0064	0.034
1,2-Dichloropropane		ND		0.0053	0.017
Dibromomethane		ND		0.015	0.085
Dichlorobromomethane		ND		0.0059	0.085
cis-1,3-Dichloropropene		ND		0.0059	0.085
Toluene		ND		0.016	0.085
trans-1,3-Dichloropropene		ND		0.0059	0.085
1,1,2-Trichloroethane		ND		0.0076	0.085
Tetrachloroethene		ND		0.015	0.053
1,3-Dichloropropane		ND		0.0089	0.034
Chlorodibromomethane		ND		0.0053	0.085
Ethylene Dibromide		ND		0.014	0.085
Chlorobenzene		ND		0.025	0.085
Ethylbenzene		ND		0.015	0.085
1,1,2,2-Tetrachloroethane		ND		0.0051	0.017
m-Xylene & p-Xylene		ND		0.032	0.085
o-Xylene		ND		0.015	0.085
Styrene		ND		0.0068	0.085
Bromoform		ND		0.0059	0.085
Isopropylbenzene		ND		0.013	0.085
Bromobenzene		ND		0.0076	0.085
N-Propylbenzene		ND		0.015	0.085
1,2,3-Trichloropropane		ND		0.015	0.085
2-Chlorotoluene		ND		0.012	0.085

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-10**

Lab Sample ID: 580-9460-6

Date Sampled: 03/27/2008 1020

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-29905

Instrument ID: SEA043

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: VB00100970.D

Dilution: 1.0

Initial Weight/Volume: 6.15 g

Date Analyzed: 04/02/2008 1204

Final Weight/Volume: 401.4 mL

Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.013	0.085
4-Chlorotoluene		ND		0.0074	0.085
tert-Butylbenzene		ND		0.0072	0.085
1,2,4-Trimethylbenzene		ND		0.015	0.085
sec-Butylbenzene		ND		0.0034	0.085
1,3-Dichlorobenzene		ND		0.0087	0.085
4-Isopropyltoluene		0.016	J	0.0059	0.085
1,4-Dichlorobenzene		ND		0.0042	0.085
n-Butylbenzene		ND		0.0051	0.085
1,2-Dichlorobenzene		ND		0.0072	0.085
1,2-Dibromo-3-Chloropropane		ND		0.019	0.085
1,2,4-Trichlorobenzene		ND		0.0083	0.085
1,2,3-Trichlorobenzene		ND		0.010	0.085
Hexachlorobutadiene		ND		0.014	0.085
Naphthalene		0.014	J	0.0055	0.085

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	100	75 - 125
Fluorobenzene (Surr)	94	75 - 125
Toluene-d8 (Surr)	103	85 - 115
4-Bromofluorobenzene (Surr)	108	85 - 120
Trifluorotoluene (Surr)	83	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-7**

Lab Sample ID: 580-9460-8

Date Sampled: 03/27/2008 1125

Client Matrix: Solid

% Moisture: 28.7

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100972.D
Dilution:	1.0		Initial Weight/Volume: 10.11 g
Date Analyzed:	04/02/2008 1227		Final Weight/Volume: 402.9 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0078	0.056
Chloromethane		ND		0.010	0.056
Vinyl chloride		ND		0.0073	0.022
Bromomethane		ND		0.039	0.28
Chloroethane		ND		0.040	0.28
Trichlorofluoromethane		ND		0.0053	0.056
1,1-Dichloroethene		ND		0.0074	0.022
Methylene Chloride		0.053	J B	0.0085	0.056
trans-1,2-Dichloroethene		ND		0.0060	0.056
1,1-Dichloroethane		ND		0.013	0.056
2,2-Dichloropropane		ND		0.0066	0.056
cis-1,2-Dichloroethene		ND		0.0084	0.056
Chlorobromomethane		ND		0.0067	0.056
Chloroform		ND		0.0053	0.056
1,1,1-Trichloroethane		ND		0.0054	0.022
Carbon tetrachloride		ND		0.0042	0.022
1,1-Dichloropropene		ND		0.0043	0.056
1,1,1,2-Tetrachloroethane		ND		0.0053	0.056
Benzene		ND		0.0039	0.011
1,2-Dichloroethane		ND		0.011	0.056
Trichloroethene		ND		0.0042	0.022
1,2-Dichloropropane		ND		0.0035	0.011
Dibromomethane		ND		0.010	0.056
Dichlorobromomethane		ND		0.0039	0.056
cis-1,3-Dichloropropene		ND		0.0039	0.056
Toluene		ND		0.010	0.056
trans-1,3-Dichloropropene		ND		0.0039	0.056
1,1,2-Trichloroethane		ND		0.0050	0.056
Tetrachloroethene		ND		0.010	0.035
1,3-Dichloropropane		ND		0.0059	0.022
Chlorodibromomethane		ND		0.0035	0.056
Ethylene Dibromide		ND		0.0092	0.056
Chlorobenzene		ND		0.017	0.056
Ethylbenzene		ND		0.010	0.056
1,1,2,2-Tetrachloroethane		ND		0.0034	0.011
m-Xylene & p-Xylene		ND		0.021	0.056
o-Xylene		ND		0.010	0.056
Styrene		ND		0.0045	0.056
Bromoform		ND		0.0039	0.056
Isopropylbenzene		ND		0.0085	0.056
Bromobenzene		ND		0.0050	0.056
N-Propylbenzene		ND		0.0096	0.056
1,2,3-Trichloropropane		ND		0.0099	0.056
2-Chlorotoluene		ND		0.0081	0.056

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-7**

Lab Sample ID: 580-9460-8

Date Sampled: 03/27/2008 1125

Client Matrix: Solid

% Moisture: 28.7

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100972.D
Dilution:	1.0		Initial Weight/Volume: 10.11 g
Date Analyzed:	04/02/2008 1227		Final Weight/Volume: 402.9 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0084	0.056
4-Chlorotoluene		ND		0.0049	0.056
tert-Butylbenzene		ND		0.0047	0.056
1,2,4-Trimethylbenzene		ND		0.0096	0.056
sec-Butylbenzene		ND		0.0022	0.056
1,3-Dichlorobenzene		ND		0.0057	0.056
4-Isopropyltoluene		ND		0.0039	0.056
1,4-Dichlorobenzene		ND		0.0028	0.056
n-Butylbenzene		ND		0.0034	0.056
1,2-Dichlorobenzene		ND		0.0047	0.056
1,2-Dibromo-3-Chloropropane		ND		0.012	0.056
1,2,4-Trichlorobenzene		ND		0.0054	0.056
1,2,3-Trichlorobenzene		ND		0.0067	0.056
Hexachlorobutadiene		ND		0.0092	0.056
Naphthalene		ND		0.0036	0.056

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	102	75 - 125
Fluorobenzene (Surr)	94	75 - 125
Toluene-d8 (Surr)	104	85 - 115
4-Bromofluorobenzene (Surr)	101	85 - 120
Trifluorotoluene (Surr)	107	75 - 125

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-10**

Lab Sample ID: 580-9460-9

Date Sampled: 03/27/2008 1130

Client Matrix: Solid

% Moisture: 16.6

Date Received: 03/28/2008 1410

## 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100974.D
Dilution:	1.0		Initial Weight/Volume: 11.72 g
Date Analyzed:	04/02/2008 1250		Final Weight/Volume: 401.9 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0058	0.041
Chloromethane		ND		0.0075	0.041
Vinyl chloride		ND		0.0053	0.016
Bromomethane		ND		0.029	0.21
Chloroethane		ND		0.030	0.21
Trichlorofluoromethane		ND		0.0039	0.041
1,1-Dichloroethene		ND		0.0055	0.016
Methylene Chloride		0.0080	J B	0.0063	0.041
trans-1,2-Dichloroethene		ND		0.0044	0.041
1,1-Dichloroethane		ND		0.0098	0.041
2,2-Dichloropropane		ND		0.0048	0.041
cis-1,2-Dichloroethene		ND		0.0062	0.041
Chlorobromomethane		ND		0.0049	0.041
Chloroform		ND		0.0039	0.041
1,1,1-Trichloroethane		ND		0.0040	0.016
Carbon tetrachloride		ND		0.0031	0.016
1,1-Dichloropropene		ND		0.0032	0.041
1,1,1,2-Tetrachloroethane		ND		0.0039	0.041
Benzene		0.0039	J	0.0029	0.0082
1,2-Dichloroethane		ND		0.0083	0.041
Trichloroethene		ND		0.0031	0.016
1,2-Dichloropropane		0.0036	J	0.0026	0.0082
Dibromomethane		ND		0.0075	0.041
Dichlorobromomethane		ND		0.0029	0.041
cis-1,3-Dichloropropene		ND		0.0029	0.041
Toluene		ND		0.0076	0.041
trans-1,3-Dichloropropene		ND		0.0029	0.041
1,1,2-Trichloroethane		ND		0.0037	0.041
Tetrachloroethene		ND		0.0075	0.026
1,3-Dichloropropane		ND		0.0043	0.016
Chlorodibromomethane		ND		0.0026	0.041
Ethylene Dibromide		ND		0.0068	0.041
Chlorobenzene		ND		0.012	0.041
Ethylbenzene		ND		0.0074	0.041
1,1,2,2-Tetrachloroethane		ND		0.0025	0.0082
m-Xylene & p-Xylene		ND		0.015	0.041
o-Xylene		ND		0.0074	0.041
Styrene		ND		0.0033	0.041
Bromoform		ND		0.0029	0.041
Isopropylbenzene		ND		0.0063	0.041
Bromobenzene		ND		0.0037	0.041
N-Propylbenzene		ND		0.0071	0.041
1,2,3-Trichloropropane		ND		0.0073	0.041
2-Chlorotoluene		ND		0.0060	0.041

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-10**

Lab Sample ID: 580-9460-9

Date Sampled: 03/27/2008 1130

Client Matrix: Solid

% Moisture: 16.6

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-29905

Instrument ID: SEA043

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: VB00100974.D

Dilution: 1.0

Initial Weight/Volume: 11.72 g

Date Analyzed: 04/02/2008 1250

Final Weight/Volume: 401.9 mL

Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0062	0.041
4-Chlorotoluene		ND		0.0036	0.041
tert-Butylbenzene		ND		0.0035	0.041
1,2,4-Trimethylbenzene		ND		0.0071	0.041
sec-Butylbenzene		ND		0.0016	0.041
1,3-Dichlorobenzene		ND		0.0042	0.041
4-Isopropyltoluene		ND		0.0029	0.041
1,4-Dichlorobenzene		ND		0.0021	0.041
n-Butylbenzene		ND		0.0025	0.041
1,2-Dichlorobenzene		ND		0.0035	0.041
1,2-Dibromo-3-Chloropropane		ND		0.0091	0.041
1,2,4-Trichlorobenzene		ND		0.0040	0.041
1,2,3-Trichlorobenzene		ND		0.0049	0.041
Hexachlorobutadiene		ND		0.0068	0.041
Naphthalene		ND		0.0027	0.041

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	100	75 - 125
Fluorobenzene (Surr)	93	75 - 125
Toluene-d8 (Surr)	102	85 - 115
4-Bromofluorobenzene (Surr)	103	85 - 120
Trifluorotoluene (Surr)	96	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-7**

Lab Sample ID: 580-9460-11

Date Sampled: 03/27/2008 1402

Client Matrix: Solid

% Moisture: 9.9

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100976.D
Dilution:	1.0		Initial Weight/Volume: 11.24 g
Date Analyzed:	04/02/2008 1313		Final Weight/Volume: 401.0 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0055	0.040
Chloromethane		ND		0.0072	0.040
Vinyl chloride		ND		0.0052	0.016
Bromomethane		ND		0.028	0.20
Chloroethane		ND		0.029	0.20
Trichlorofluoromethane		ND		0.0038	0.040
1,1-Dichloroethene		ND		0.0052	0.016
Methylene Chloride		0.015	J B	0.0060	0.040
trans-1,2-Dichloroethene		ND		0.0043	0.040
1,1-Dichloroethane		ND		0.0094	0.040
2,2-Dichloropropane		ND		0.0047	0.040
cis-1,2-Dichloroethene		ND		0.0059	0.040
Chlorobromomethane		ND		0.0048	0.040
Chloroform		ND		0.0038	0.040
1,1,1-Trichloroethane		ND		0.0039	0.016
Carbon tetrachloride		ND		0.0030	0.016
1,1-Dichloropropene		ND		0.0031	0.040
1,1,1,2-Tetrachloroethane		ND		0.0038	0.040
Benzene		ND		0.0028	0.0079
1,2-Dichloroethane		ND		0.0080	0.040
Trichloroethene		ND		0.0030	0.016
1,2-Dichloropropane		ND		0.0025	0.0079
Dibromomethane		ND		0.0072	0.040
Dichlorobromomethane		ND		0.0028	0.040
cis-1,3-Dichloropropene		ND		0.0028	0.040
Toluene		ND		0.0073	0.040
trans-1,3-Dichloropropene		ND		0.0028	0.040
1,1,2-Trichloroethane		ND		0.0036	0.040
Tetrachloroethene		ND		0.0072	0.025
1,3-Dichloropropane		ND		0.0042	0.016
Chlorodibromomethane		ND		0.0025	0.040
Ethylene Dibromide		ND		0.0065	0.040
Chlorobenzene		ND		0.012	0.040
Ethylbenzene		ND		0.0071	0.040
1,1,2,2-Tetrachloroethane		ND		0.0024	0.0079
m-Xylene & p-Xylene		ND		0.015	0.040
o-Xylene		ND		0.0071	0.040
Styrene		ND		0.0032	0.040
Bromoform		ND		0.0028	0.040
Isopropylbenzene		ND		0.0060	0.040
Bromobenzene		ND		0.0036	0.040
N-Propylbenzene		ND		0.0068	0.040
1,2,3-Trichloropropane		ND		0.0070	0.040
2-Chlorotoluene		ND		0.0057	0.040

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-7**

Lab Sample ID: 580-9460-11

Date Sampled: 03/27/2008 1402

Client Matrix: Solid

% Moisture: 9.9

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-29905

Instrument ID: SEA043

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: VB00100976.D

Dilution: 1.0

Initial Weight/Volume: 11.24 g

Date Analyzed: 04/02/2008 1313

Final Weight/Volume: 401.0 mL

Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0059	0.040
4-Chlorotoluene		ND		0.0035	0.040
tert-Butylbenzene		ND		0.0034	0.040
1,2,4-Trimethylbenzene		ND		0.0068	0.040
sec-Butylbenzene		ND		0.0016	0.040
1,3-Dichlorobenzene		ND		0.0041	0.040
4-Isopropyltoluene		ND		0.0028	0.040
1,4-Dichlorobenzene		ND		0.0020	0.040
n-Butylbenzene		ND		0.0024	0.040
1,2-Dichlorobenzene		ND		0.0034	0.040
1,2-Dibromo-3-Chloropropane		ND		0.0087	0.040
1,2,4-Trichlorobenzene		ND		0.0039	0.040
1,2,3-Trichlorobenzene		ND		0.0048	0.040
Hexachlorobutadiene		ND		0.0065	0.040
Naphthalene		ND		0.0026	0.040

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	99	75 - 125
Fluorobenzene (Surr)	95	75 - 125
Toluene-d8 (Surr)	103	85 - 115
4-Bromofluorobenzene (Surr)	104	85 - 120
Trifluorotoluene (Surr)	96	75 - 125



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-10**

Lab Sample ID: 580-9460-12

Date Sampled: 03/27/2008 1408

Client Matrix: Solid

% Moisture: 24.0

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 580-29905	Instrument ID: SEA043
Preparation:	5035-Medium	Prep Batch: 580-29857	Lab File ID: VB00100978.D
Dilution:	1.0		Initial Weight/Volume: 11.56 g
Date Analyzed:	04/02/2008 1337		Final Weight/Volume: 405.7 mL
Date Prepared:	04/02/2008 0805		

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Dichlorodifluoromethane		ND		0.0065	0.046
Chloromethane		ND		0.0084	0.046
Vinyl chloride		ND		0.0060	0.018
Bromomethane		ND		0.032	0.23
Chloroethane		ND		0.033	0.23
Trichlorofluoromethane		ND		0.0044	0.046
1,1-Dichloroethene		ND		0.0061	0.018
Methylene Chloride		0.0091	J B	0.0070	0.046
trans-1,2-Dichloroethene		ND		0.0050	0.046
1,1-Dichloroethane		ND		0.011	0.046
2,2-Dichloropropane		ND		0.0054	0.046
cis-1,2-Dichloroethene		ND		0.0069	0.046
Chlorobromomethane		ND		0.0055	0.046
Chloroform		ND		0.0044	0.046
1,1,1-Trichloroethane		ND		0.0045	0.018
Carbon tetrachloride		ND		0.0035	0.018
1,1-Dichloropropene		ND		0.0036	0.046
1,1,1,2-Tetrachloroethane		ND		0.0044	0.046
Benzene		ND		0.0032	0.0092
1,2-Dichloroethane		ND		0.0093	0.046
Trichloroethene		ND		0.0035	0.018
1,2-Dichloropropane		0.0029	J	0.0029	0.0092
Dibromomethane		ND		0.0084	0.046
Dichlorobromomethane		ND		0.0032	0.046
cis-1,3-Dichloropropene		ND		0.0032	0.046
Toluene		ND		0.0085	0.046
trans-1,3-Dichloropropene		ND		0.0032	0.046
1,1,2-Trichloroethane		ND		0.0042	0.046
Tetrachloroethene		ND		0.0084	0.029
1,3-Dichloropropane		ND		0.0048	0.018
Chlorodibromomethane		ND		0.0029	0.046
Ethylene Dibromide		ND		0.0076	0.046
Chlorobenzene		ND		0.014	0.046
Ethylbenzene		ND		0.0083	0.046
1,1,2,2-Tetrachloroethane		ND		0.0028	0.0092
m-Xylene & p-Xylene		ND		0.017	0.046
o-Xylene		ND		0.0083	0.046
Styrene		ND		0.0037	0.046
Bromoform		ND		0.0032	0.046
Isopropylbenzene		ND		0.0070	0.046
Bromobenzene		ND		0.0042	0.046
N-Propylbenzene		ND		0.0080	0.046
1,2,3-Trichloropropane		ND		0.0082	0.046
2-Chlorotoluene		ND		0.0067	0.046

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-10**

Lab Sample ID: 580-9460-12

Date Sampled: 03/27/2008 1408

Client Matrix: Solid

% Moisture: 24.0

Date Received: 03/28/2008 1410

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 580-29905

Instrument ID: SEA043

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: VB00100978.D

Dilution: 1.0

Initial Weight/Volume: 11.56 g

Date Analyzed: 04/02/2008 1337

Final Weight/Volume: 405.7 mL

Date Prepared: 04/02/2008 0805

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,3,5-Trimethylbenzene		ND		0.0069	0.046
4-Chlorotoluene		ND		0.0040	0.046
tert-Butylbenzene		ND		0.0039	0.046
1,2,4-Trimethylbenzene		ND		0.0080	0.046
sec-Butylbenzene		ND		0.0018	0.046
1,3-Dichlorobenzene		ND		0.0047	0.046
4-Isopropyltoluene		ND		0.0032	0.046
1,4-Dichlorobenzene		ND		0.0023	0.046
n-Butylbenzene		ND		0.0028	0.046
1,2-Dichlorobenzene		ND		0.0039	0.046
1,2-Dibromo-3-Chloropropane		ND		0.010	0.046
1,2,4-Trichlorobenzene		ND		0.0045	0.046
1,2,3-Trichlorobenzene		ND		0.0055	0.046
Hexachlorobutadiene		ND		0.0076	0.046
Naphthalene		ND		0.0030	0.046

Surrogate	%Rec	Acceptance Limits
Ethylbenzene-d10	100	75 - 125
Fluorobenzene (Surr)	96	75 - 125
Toluene-d8 (Surr)	102	85 - 115
4-Bromofluorobenzene (Surr)	102	85 - 120
Trifluorotoluene (Surr)	94	75 - 125

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-6**

Lab Sample ID: 580-9460-2

Date Sampled: 03/27/2008 0830

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09222.D
Dilution:	1.0		Initial Weight/Volume: 10.5322 g
Date Analyzed:	04/07/2008 1523		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.11	0.11
Bis(2-chloroethyl)ether		ND		0.11	0.11
2-Chlorophenol		ND		0.11	0.11
1,3-Dichlorobenzene		ND		0.057	0.057
1,4-Dichlorobenzene		ND		0.057	0.057
Benzyl alcohol		ND		0.11	0.11
1,2-Dichlorobenzene		ND		0.057	0.057
2-Methylphenol		ND		0.11	0.11
3 & 4 Methylphenol		ND		0.23	0.23
N-Nitrosodi-n-propylamine		ND		0.11	0.11
Hexachloroethane		ND		0.11	0.11
Nitrobenzene		ND		0.11	0.11
Isophorone		ND		0.11	0.11
2-Nitrophenol		ND		0.11	0.11
2,4-Dimethylphenol		ND		0.11	0.11
Benzoic acid		ND		2.8	2.8
Bis(2-chloroethoxy)methane		ND		0.11	0.11
2,4-Dichlorophenol		ND		0.11	0.11
1,2,4-Trichlorobenzene		ND		0.057	0.057
Naphthalene		ND		0.023	0.023
4-Chloroaniline		ND		0.11	0.11
Hexachlorobutadiene		ND		0.057	0.057
4-Chloro-3-methylphenol		ND		0.11	0.11
2-Methylnaphthalene		ND		0.023	0.023
Hexachlorocyclopentadiene		ND		0.11	0.11
2,4,6-Trichlorophenol		ND		0.17	0.17
2,4,5-Trichlorophenol		ND		0.11	0.11
2-Chloronaphthalene		ND		0.023	0.023
2-Nitroaniline		ND		0.11	0.11
Dimethyl phthalate		ND		0.11	0.11
Acenaphthylene		ND		0.023	0.023
2,6-Dinitrotoluene		ND		0.11	0.11
3-Nitroaniline		ND		0.11	0.11
Acenaphthene		ND		0.023	0.023
2,4-Dinitrophenol		ND		1.1	1.1
4-Nitrophenol		ND		1.1	1.1
Dibenzofuran		ND		0.11	0.11
2,4-Dinitrotoluene		ND		0.11	0.11
Diethyl phthalate		ND		0.11	0.11
4-Chlorophenyl phenyl ether		ND		0.11	0.11
Fluorene		ND		0.023	0.023
4-Nitroaniline		ND		0.11	0.11
4,6-Dinitro-2-methylphenol		ND		1.1	1.1
N-Nitrosodiphenylamine		ND		0.057	0.057

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-6**

Lab Sample ID: 580-9460-2

Date Sampled: 03/27/2008 0830

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09222.D
Dilution:	1.0		Initial Weight/Volume: 10.5322 g
Date Analyzed:	04/07/2008 1523		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.11	0.11
Hexachlorobenzene		ND		0.057	0.057
Pentachlorophenol		ND		0.11	0.11
Phenanthrene		ND		0.023	0.023
Anthracene		ND		0.023	0.023
Di-n-butyl phthalate		ND		0.23	0.23
Fluoranthene		ND		0.023	0.023
Pyrene		ND		0.023	0.023
Butyl benzyl phthalate		ND		0.11	0.11
3,3'-Dichlorobenzidine		ND		0.23	0.23
Benzo[a]anthracene		ND		0.028	0.028
Chrysene		ND		0.028	0.028
Bis(2-ethylhexyl) phthalate		ND		1.7	1.7
Di-n-octyl phthalate		ND		0.23	0.23
Benzofluoranthene		ND		0.045	0.045
Benzo[a]pyrene		ND		0.034	0.034
Indeno[1,2,3-cd]pyrene		ND		0.045	0.045
Dibenz(a,h)anthracene		ND		0.045	0.045
Benzo[g,h,i]perylene		ND		0.028	0.028
Carbazole		ND		0.17	0.17
1-Methylnaphthalene		ND		0.034	0.034
Benzo[b]fluoranthene		ND		0.023	0.023
Benzo[k]fluoranthene		ND		0.028	0.028
2,2'-oxybis[1-chloropropane]		ND		0.17	0.17

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	85	42 - 140
2,4,6-Tribromophenol	65	28 - 143
Terphenyl-d14	99	42 - 151
2-Fluorophenol	102	36 - 145
Nitrobenzene-d5	82	38 - 141
Phenol-d5	100	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-9**

Lab Sample ID: 580-9460-3

Date Sampled: 03/27/2008 0835

Client Matrix: Solid

% Moisture: 22.2

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09225.D
Dilution:	1.0		Initial Weight/Volume: 10.6277 g
Date Analyzed:	04/07/2008 1622		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.12	0.12
Bis(2-chloroethyl)ether		ND		0.12	0.12
2-Chlorophenol		ND		0.12	0.12
1,3-Dichlorobenzene		ND		0.060	0.060
1,4-Dichlorobenzene		ND		0.060	0.060
Benzyl alcohol		ND		0.12	0.12
1,2-Dichlorobenzene		ND		0.060	0.060
2-Methylphenol		ND		0.12	0.12
3 & 4 Methylphenol		ND		0.24	0.24
N-Nitrosodi-n-propylamine		ND		0.12	0.12
Hexachloroethane		ND		0.12	0.12
Nitrobenzene		ND		0.12	0.12
Isophorone		ND		0.12	0.12
2-Nitrophenol		ND		0.12	0.12
2,4-Dimethylphenol		ND		0.12	0.12
Benzoic acid		ND		3.0	3.0
Bis(2-chloroethoxy)methane		ND		0.12	0.12
2,4-Dichlorophenol		ND		0.12	0.12
1,2,4-Trichlorobenzene		ND		0.060	0.060
Naphthalene		ND		0.024	0.024
4-Chloroaniline		ND		0.12	0.12
Hexachlorobutadiene		ND		0.060	0.060
4-Chloro-3-methylphenol		ND		0.12	0.12
2-Methylnaphthalene		ND		0.024	0.024
Hexachlorocyclopentadiene		ND		0.12	0.12
2,4,6-Trichlorophenol		ND		0.18	0.18
2,4,5-Trichlorophenol		ND		0.12	0.12
2-Chloronaphthalene		ND		0.024	0.024
2-Nitroaniline		ND		0.12	0.12
Dimethyl phthalate		ND		0.12	0.12
Acenaphthylene		ND		0.024	0.024
2,6-Dinitrotoluene		ND		0.12	0.12
3-Nitroaniline		ND		0.12	0.12
Acenaphthene		ND		0.024	0.024
2,4-Dinitrophenol		ND		1.2	1.2
4-Nitrophenol		ND		1.2	1.2
Dibenzofuran		ND		0.12	0.12
2,4-Dinitrotoluene		ND		0.12	0.12
Diethyl phthalate		ND		0.12	0.12
4-Chlorophenyl phenyl ether		ND		0.12	0.12
Fluorene		ND		0.024	0.024
4-Nitroaniline		ND		0.12	0.12
4,6-Dinitro-2-methylphenol		ND		1.2	1.2
N-Nitrosodiphenylamine		ND		0.060	0.060

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-9**

Lab Sample ID: 580-9460-3

Date Sampled: 03/27/2008 0835

Client Matrix: Solid

% Moisture: 22.2

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09225.D
Dilution:	1.0		Initial Weight/Volume: 10.6277 g
Date Analyzed:	04/07/2008 1622		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.12	0.12
Hexachlorobenzene		ND		0.060	0.060
Pentachlorophenol		ND		0.12	0.12
Phenanthrene		ND		0.024	0.024
Anthracene		ND		0.024	0.024
Di-n-butyl phthalate		ND		0.24	0.24
Fluoranthene		ND		0.024	0.024
Pyrene		ND		0.024	0.024
Butyl benzyl phthalate		ND		0.12	0.12
3,3'-Dichlorobenzidine		ND		0.24	0.24
Benzo[a]anthracene		ND		0.030	0.030
Chrysene		ND		0.030	0.030
Bis(2-ethylhexyl) phthalate		ND		1.8	1.8
Di-n-octyl phthalate		ND		0.24	0.24
Benzofluoranthene		ND		0.048	0.048
Benzo[a]pyrene		ND		0.036	0.036
Indeno[1,2,3-cd]pyrene		ND		0.048	0.048
Dibenz(a,h)anthracene		ND		0.048	0.048
Benzo[g,h,i]perylene		ND		0.030	0.030
Carbazole		ND		0.18	0.18
1-Methylnaphthalene		ND		0.036	0.036
Benzo[b]fluoranthene		ND		0.024	0.024
Benzo[k]fluoranthene		ND		0.030	0.030
2,2'-oxybis[1-chloropropane]		ND		0.18	0.18

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	76	42 - 140
2,4,6-Tribromophenol	64	28 - 143
Terphenyl-d14	93	42 - 151
2-Fluorophenol	100	36 - 145
Nitrobenzene-d5	79	38 - 141
Phenol-d5	100	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-7**

Lab Sample ID: 580-9460-5

Date Sampled: 03/27/2008 1010

Client Matrix: Solid

% Moisture: 22.8

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09226.D
Dilution:	1.0		Initial Weight/Volume: 10.6730 g
Date Analyzed:	04/07/2008 1641		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.12	0.12
Bis(2-chloroethyl)ether		ND		0.12	0.12
2-Chlorophenol		ND		0.12	0.12
1,3-Dichlorobenzene		ND		0.061	0.061
1,4-Dichlorobenzene		ND		0.061	0.061
Benzyl alcohol		ND		0.12	0.12
1,2-Dichlorobenzene		ND		0.061	0.061
2-Methylphenol		ND		0.12	0.12
3 & 4 Methylphenol		ND		0.24	0.24
N-Nitrosodi-n-propylamine		ND		0.12	0.12
Hexachloroethane		ND		0.12	0.12
Nitrobenzene		ND		0.12	0.12
Isophorone		ND		0.12	0.12
2-Nitrophenol		ND		0.12	0.12
2,4-Dimethylphenol		ND		0.12	0.12
Benzoic acid		ND		3.0	3.0
Bis(2-chloroethoxy)methane		ND		0.12	0.12
2,4-Dichlorophenol		ND		0.12	0.12
1,2,4-Trichlorobenzene		ND		0.061	0.061
Naphthalene		ND		0.024	0.024
4-Chloroaniline		ND		0.12	0.12
Hexachlorobutadiene		ND		0.061	0.061
4-Chloro-3-methylphenol		ND		0.12	0.12
2-Methylnaphthalene		ND		0.024	0.024
Hexachlorocyclopentadiene		ND		0.12	0.12
2,4,6-Trichlorophenol		ND		0.18	0.18
2,4,5-Trichlorophenol		ND		0.12	0.12
2-Chloronaphthalene		ND		0.024	0.024
2-Nitroaniline		ND		0.12	0.12
Dimethyl phthalate		ND		0.12	0.12
Acenaphthylene		ND		0.024	0.024
2,6-Dinitrotoluene		ND		0.12	0.12
3-Nitroaniline		ND		0.12	0.12
Acenaphthene		ND		0.024	0.024
2,4-Dinitrophenol		ND		1.2	1.2
4-Nitrophenol		ND		1.2	1.2
Dibenzofuran		ND		0.12	0.12
2,4-Dinitrotoluene		ND		0.12	0.12
Diethyl phthalate		ND		0.12	0.12
4-Chlorophenyl phenyl ether		ND		0.12	0.12
Fluorene		ND		0.024	0.024
4-Nitroaniline		ND		0.12	0.12
4,6-Dinitro-2-methylphenol		ND		1.2	1.2
N-Nitrosodiphenylamine		ND		0.061	0.061

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-7**

Lab Sample ID: 580-9460-5

Date Sampled: 03/27/2008 1010

Client Matrix: Solid

% Moisture: 22.8

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09226.D
Dilution:	1.0		Initial Weight/Volume: 10.6730 g
Date Analyzed:	04/07/2008 1641		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.12	0.12
Hexachlorobenzene		ND		0.061	0.061
Pentachlorophenol		ND		0.12	0.12
Phenanthrene		ND		0.024	0.024
Anthracene		ND		0.024	0.024
Di-n-butyl phthalate		ND		0.24	0.24
Fluoranthene		0.037		0.024	0.024
Pyrene		0.049		0.024	0.024
Butyl benzyl phthalate		ND		0.12	0.12
3,3'-Dichlorobenzidine		ND		0.24	0.24
Benzo[a]anthracene		0.034		0.030	0.030
Chrysene		ND		0.030	0.030
Bis(2-ethylhexyl) phthalate		ND		1.8	1.8
Di-n-octyl phthalate		ND		0.24	0.24
Benzofluoranthene		ND		0.049	0.049
Benzo[a]pyrene		ND		0.036	0.036
Indeno[1,2,3-cd]pyrene		ND		0.049	0.049
Dibenz(a,h)anthracene		ND		0.049	0.049
Benzo[g,h,i]perylene		ND		0.030	0.030
Carbazole		ND		0.18	0.18
1-Methylnaphthalene		ND		0.036	0.036
Benzo[b]fluoranthene		0.032		0.024	0.024
Benzo[k]fluoranthene		ND		0.030	0.030
2,2'-oxybis[1-chloropropane]		ND		0.18	0.18

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	74	42 - 140
2,4,6-Tribromophenol	69	28 - 143
Terphenyl-d14	103	42 - 151
2-Fluorophenol	93	36 - 145
Nitrobenzene-d5	73	38 - 141
Phenol-d5	92	38 - 149



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-10**

Lab Sample ID: 580-9460-6

Date Sampled: 03/27/2008 1020

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09227.D
Dilution:	1.0		Initial Weight/Volume: 10.5369 g
Date Analyzed:	04/07/2008 1701		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.12	0.12
Bis(2-chloroethyl)ether		ND		0.12	0.12
2-Chlorophenol		ND		0.12	0.12
1,3-Dichlorobenzene		ND		0.062	0.062
1,4-Dichlorobenzene		ND		0.062	0.062
Benzyl alcohol		ND		0.12	0.12
1,2-Dichlorobenzene		ND		0.062	0.062
2-Methylphenol		ND		0.12	0.12
3 & 4 Methylphenol		ND		0.25	0.25
N-Nitrosodi-n-propylamine		ND		0.12	0.12
Hexachloroethane		ND		0.12	0.12
Nitrobenzene		ND		0.12	0.12
Isophorone		ND		0.12	0.12
2-Nitrophenol		ND		0.12	0.12
2,4-Dimethylphenol		ND		0.12	0.12
Benzoic acid		ND		3.1	3.1
Bis(2-chloroethoxy)methane		ND		0.12	0.12
2,4-Dichlorophenol		ND		0.12	0.12
1,2,4-Trichlorobenzene		ND		0.062	0.062
Naphthalene		ND		0.025	0.025
4-Chloroaniline		ND		0.12	0.12
Hexachlorobutadiene		ND		0.062	0.062
4-Chloro-3-methylphenol		ND		0.12	0.12
2-Methylnaphthalene		ND		0.025	0.025
Hexachlorocyclopentadiene		ND		0.12	0.12
2,4,6-Trichlorophenol		ND		0.19	0.19
2,4,5-Trichlorophenol		ND		0.12	0.12
2-Chloronaphthalene		ND		0.025	0.025
2-Nitroaniline		ND		0.12	0.12
Dimethyl phthalate		ND		0.12	0.12
Acenaphthylene		ND		0.025	0.025
2,6-Dinitrotoluene		ND		0.12	0.12
3-Nitroaniline		ND		0.12	0.12
Acenaphthene		ND		0.025	0.025
2,4-Dinitrophenol		ND		1.2	1.2
4-Nitrophenol		ND		1.2	1.2
Dibenzofuran		ND		0.12	0.12
2,4-Dinitrotoluene		ND		0.12	0.12
Diethyl phthalate		ND		0.12	0.12
4-Chlorophenyl phenyl ether		ND		0.12	0.12
Fluorene		ND		0.025	0.025
4-Nitroaniline		ND		0.12	0.12
4,6-Dinitro-2-methylphenol		ND		1.2	1.2
N-Nitrosodiphenylamine		ND		0.062	0.062

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-10**

Lab Sample ID: 580-9460-6

Date Sampled: 03/27/2008 1020

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09227.D
Dilution:	1.0		Initial Weight/Volume: 10.5369 g
Date Analyzed:	04/07/2008 1701		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.12	0.12
Hexachlorobenzene		ND		0.062	0.062
Pentachlorophenol		ND		0.12	0.12
Phenanthrene		0.048		0.025	0.025
Anthracene		ND		0.025	0.025
Di-n-butyl phthalate		ND		0.25	0.25
Fluoranthene		0.053		0.025	0.025
Pyrene		0.057		0.025	0.025
Butyl benzyl phthalate		ND		0.12	0.12
3,3'-Dichlorobenzidine		ND		0.25	0.25
Benzo[a]anthracene		ND		0.031	0.031
Chrysene		ND		0.031	0.031
Bis(2-ethylhexyl) phthalate		4.2		1.9	1.9
Di-n-octyl phthalate		ND		0.25	0.25
Benzofluoranthene		ND		0.049	0.049
Benzo[a]pyrene		ND		0.037	0.037
Indeno[1,2,3-cd]pyrene		ND		0.049	0.049
Dibenz(a,h)anthracene		ND		0.049	0.049
Benzo[g,h,i]perylene		ND		0.031	0.031
Carbazole		ND		0.19	0.19
1-Methylnaphthalene		ND		0.037	0.037
Benzo[b]fluoranthene		ND		0.025	0.025
Benzo[k]fluoranthene		ND		0.031	0.031
2,2'-oxybis[1-chloropropane]		ND		0.19	0.19

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	84	42 - 140
2,4,6-Tribromophenol	75	28 - 143
Terphenyl-d14	101	42 - 151
2-Fluorophenol	101	36 - 145
Nitrobenzene-d5	84	38 - 141
Phenol-d5	99	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-7**

Lab Sample ID: 580-9460-8

Date Sampled: 03/27/2008 1125

Client Matrix: Solid

% Moisture: 28.7

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09228.D
Dilution:	1.0		Initial Weight/Volume: 10.6491 g
Date Analyzed:	04/07/2008 1720		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.13	0.13
Bis(2-chloroethyl)ether		ND		0.13	0.13
2-Chlorophenol		ND		0.13	0.13
1,3-Dichlorobenzene		ND		0.066	0.066
1,4-Dichlorobenzene		ND		0.066	0.066
Benzyl alcohol		ND		0.13	0.13
1,2-Dichlorobenzene		ND		0.066	0.066
2-Methylphenol		ND		0.13	0.13
3 & 4 Methylphenol		ND		0.26	0.26
N-Nitrosodi-n-propylamine		ND		0.13	0.13
Hexachloroethane		ND		0.13	0.13
Nitrobenzene		ND		0.13	0.13
Isophorone		ND		0.13	0.13
2-Nitrophenol		ND		0.13	0.13
2,4-Dimethylphenol		ND		0.13	0.13
Benzoic acid		ND		3.3	3.3
Bis(2-chloroethoxy)methane		ND		0.13	0.13
2,4-Dichlorophenol		ND		0.13	0.13
1,2,4-Trichlorobenzene		ND		0.066	0.066
Naphthalene		ND		0.026	0.026
4-Chloroaniline		ND		0.13	0.13
Hexachlorobutadiene		ND		0.066	0.066
4-Chloro-3-methylphenol		ND		0.13	0.13
2-Methylnaphthalene		ND		0.026	0.026
Hexachlorocyclopentadiene		ND		0.13	0.13
2,4,6-Trichlorophenol		ND		0.20	0.20
2,4,5-Trichlorophenol		ND		0.13	0.13
2-Chloronaphthalene		ND		0.026	0.026
2-Nitroaniline		ND		0.13	0.13
Dimethyl phthalate		ND		0.13	0.13
Acenaphthylene		ND		0.026	0.026
2,6-Dinitrotoluene		ND		0.13	0.13
3-Nitroaniline		ND		0.13	0.13
Acenaphthene		ND		0.026	0.026
2,4-Dinitrophenol		ND		1.3	1.3
4-Nitrophenol		ND		1.3	1.3
Dibenzofuran		ND		0.13	0.13
2,4-Dinitrotoluene		ND		0.13	0.13
Diethyl phthalate		ND		0.13	0.13
4-Chlorophenyl phenyl ether		ND		0.13	0.13
Fluorene		ND		0.026	0.026
4-Nitroaniline		ND		0.13	0.13
4,6-Dinitro-2-methylphenol		ND		1.3	1.3
N-Nitrosodiphenylamine		ND		0.066	0.066

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-7**

Lab Sample ID: 580-9460-8

Date Sampled: 03/27/2008 1125

Client Matrix: Solid

% Moisture: 28.7

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09228.D
Dilution:	1.0		Initial Weight/Volume: 10.6491 g
Date Analyzed:	04/07/2008 1720		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.13	0.13
Hexachlorobenzene		ND		0.066	0.066
Pentachlorophenol		ND		0.13	0.13
Phenanthrene		ND		0.026	0.026
Anthracene		ND		0.026	0.026
Di-n-butyl phthalate		ND		0.26	0.26
Fluoranthene		ND		0.026	0.026
Pyrene		ND		0.026	0.026
Butyl benzyl phthalate		ND		0.13	0.13
3,3'-Dichlorobenzidine		ND		0.26	0.26
Benzo[a]anthracene		ND		0.033	0.033
Chrysene		ND		0.033	0.033
Bis(2-ethylhexyl) phthalate		ND		2.0	2.0
Di-n-octyl phthalate		ND		0.26	0.26
Benzofluoranthene		ND		0.053	0.053
Benzo[a]pyrene		ND		0.039	0.039
Indeno[1,2,3-cd]pyrene		ND		0.053	0.053
Dibenz(a,h)anthracene		ND		0.053	0.053
Benzo[g,h,i]perylene		ND		0.033	0.033
Carbazole		ND		0.20	0.20
1-Methylnaphthalene		ND		0.039	0.039
Benzo[b]fluoranthene		ND		0.026	0.026
Benzo[k]fluoranthene		ND		0.033	0.033
2,2'-oxybis[1-chloropropane]		ND		0.20	0.20

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	80	42 - 140
2,4,6-Tribromophenol	65	28 - 143
Terphenyl-d14	95	42 - 151
2-Fluorophenol	99	36 - 145
Nitrobenzene-d5	81	38 - 141
Phenol-d5	98	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-10**

Lab Sample ID: 580-9460-9

Date Sampled: 03/27/2008 1130

Client Matrix: Solid

% Moisture: 16.6

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09229.D
Dilution:	1.0		Initial Weight/Volume: 10.3747 g
Date Analyzed:	04/07/2008 1740		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.12	0.12
Bis(2-chloroethyl)ether		ND		0.12	0.12
2-Chlorophenol		ND		0.12	0.12
1,3-Dichlorobenzene		ND		0.058	0.058
1,4-Dichlorobenzene		ND		0.058	0.058
Benzyl alcohol		ND		0.12	0.12
1,2-Dichlorobenzene		ND		0.058	0.058
2-Methylphenol		ND		0.12	0.12
3 & 4 Methylphenol		ND		0.23	0.23
N-Nitrosodi-n-propylamine		ND		0.12	0.12
Hexachloroethane		ND		0.12	0.12
Nitrobenzene		ND		0.12	0.12
Isophorone		ND		0.12	0.12
2-Nitrophenol		ND		0.12	0.12
2,4-Dimethylphenol		ND		0.12	0.12
Benzoic acid		ND		2.9	2.9
Bis(2-chloroethoxy)methane		ND		0.12	0.12
2,4-Dichlorophenol		ND		0.12	0.12
1,2,4-Trichlorobenzene		ND		0.058	0.058
Naphthalene		ND		0.023	0.023
4-Chloroaniline		ND		0.12	0.12
Hexachlorobutadiene		ND		0.058	0.058
4-Chloro-3-methylphenol		ND		0.12	0.12
2-Methylnaphthalene		ND		0.023	0.023
Hexachlorocyclopentadiene		ND		0.12	0.12
2,4,6-Trichlorophenol		ND		0.17	0.17
2,4,5-Trichlorophenol		ND		0.12	0.12
2-Chloronaphthalene		ND		0.023	0.023
2-Nitroaniline		ND		0.12	0.12
Dimethyl phthalate		ND		0.12	0.12
Acenaphthylene		ND		0.023	0.023
2,6-Dinitrotoluene		ND		0.12	0.12
3-Nitroaniline		ND		0.12	0.12
Acenaphthene		ND		0.023	0.023
2,4-Dinitrophenol		ND		1.2	1.2
4-Nitrophenol		ND		1.2	1.2
Dibenzofuran		ND		0.12	0.12
2,4-Dinitrotoluene		ND		0.12	0.12
Diethyl phthalate		ND		0.12	0.12
4-Chlorophenyl phenyl ether		ND		0.12	0.12
Fluorene		ND		0.023	0.023
4-Nitroaniline		ND		0.12	0.12
4,6-Dinitro-2-methylphenol		ND		1.2	1.2
N-Nitrosodiphenylamine		ND		0.058	0.058

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-10**

Lab Sample ID: 580-9460-9

Date Sampled: 03/27/2008 1130

Client Matrix: Solid

% Moisture: 16.6

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09229.D
Dilution:	1.0		Initial Weight/Volume: 10.3747 g
Date Analyzed:	04/07/2008 1740		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.12	0.12
Hexachlorobenzene		ND		0.058	0.058
Pentachlorophenol		ND		0.12	0.12
Phenanthrene		ND		0.023	0.023
Anthracene		ND		0.023	0.023
Di-n-butyl phthalate		ND		0.23	0.23
Fluoranthene		ND		0.023	0.023
Pyrene		ND		0.023	0.023
Butyl benzyl phthalate		ND		0.12	0.12
3,3'-Dichlorobenzidine		ND		0.23	0.23
Benzo[a]anthracene		ND		0.029	0.029
Chrysene		ND		0.029	0.029
Bis(2-ethylhexyl) phthalate		ND		1.7	1.7
Di-n-octyl phthalate		ND		0.23	0.23
Benzofluoranthene		ND		0.046	0.046
Benzo[a]pyrene		ND		0.035	0.035
Indeno[1,2,3-cd]pyrene		ND		0.046	0.046
Dibenz(a,h)anthracene		ND		0.046	0.046
Benzo[g,h,i]perylene		ND		0.029	0.029
Carbazole		ND		0.17	0.17
1-Methylnaphthalene		ND		0.035	0.035
Benzo[b]fluoranthene		ND		0.023	0.023
Benzo[k]fluoranthene		ND		0.029	0.029
2,2'-oxybis[1-chloropropane]		ND		0.17	0.17

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	79	42 - 140
2,4,6-Tribromophenol	71	28 - 143
Terphenyl-d14	106	42 - 151
2-Fluorophenol	95	36 - 145
Nitrobenzene-d5	76	38 - 141
Phenol-d5	96	38 - 149

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-7**

Lab Sample ID: 580-9460-11

Date Sampled: 03/27/2008 1402

Client Matrix: Solid

% Moisture: 9.9

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09230.D
Dilution:	1.0		Initial Weight/Volume: 10.7203 g
Date Analyzed:	04/07/2008 1759		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.10	0.10
Bis(2-chloroethyl)ether		ND		0.10	0.10
2-Chlorophenol		ND		0.10	0.10
1,3-Dichlorobenzene		ND		0.052	0.052
1,4-Dichlorobenzene		ND		0.052	0.052
Benzyl alcohol		ND		0.10	0.10
1,2-Dichlorobenzene		ND		0.052	0.052
2-Methylphenol		ND		0.10	0.10
3 & 4 Methylphenol		ND		0.21	0.21
N-Nitrosodi-n-propylamine		ND		0.10	0.10
Hexachloroethane		ND		0.10	0.10
Nitrobenzene		ND		0.10	0.10
Isophorone		ND		0.10	0.10
2-Nitrophenol		ND		0.10	0.10
2,4-Dimethylphenol		ND		0.10	0.10
Benzoic acid		ND		2.6	2.6
Bis(2-chloroethoxy)methane		ND		0.10	0.10
2,4-Dichlorophenol		ND		0.10	0.10
1,2,4-Trichlorobenzene		ND		0.052	0.052
Naphthalene		ND		0.021	0.021
4-Chloroaniline		ND		0.10	0.10
Hexachlorobutadiene		ND		0.052	0.052
4-Chloro-3-methylphenol		ND		0.10	0.10
2-Methylnaphthalene		ND		0.021	0.021
Hexachlorocyclopentadiene		ND		0.10	0.10
2,4,6-Trichlorophenol		ND		0.16	0.16
2,4,5-Trichlorophenol		ND		0.10	0.10
2-Chloronaphthalene		ND		0.021	0.021
2-Nitroaniline		ND		0.10	0.10
Dimethyl phthalate		ND		0.10	0.10
Acenaphthylene		ND		0.021	0.021
2,6-Dinitrotoluene		ND		0.10	0.10
3-Nitroaniline		ND		0.10	0.10
Acenaphthene		ND		0.021	0.021
2,4-Dinitrophenol		ND		1.0	1.0
4-Nitrophenol		ND		1.0	1.0
Dibenzofuran		ND		0.10	0.10
2,4-Dinitrotoluene		ND		0.10	0.10
Diethyl phthalate		ND		0.10	0.10
4-Chlorophenyl phenyl ether		ND		0.10	0.10
Fluorene		ND		0.021	0.021
4-Nitroaniline		ND		0.10	0.10
4,6-Dinitro-2-methylphenol		ND		1.0	1.0
N-Nitrosodiphenylamine		ND		0.052	0.052

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-7**

Lab Sample ID: 580-9460-11

Date Sampled: 03/27/2008 1402

Client Matrix: Solid

% Moisture: 9.9

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09230.D
Dilution:	1.0		Initial Weight/Volume: 10.7203 g
Date Analyzed:	04/07/2008 1759		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.10	0.10
Hexachlorobenzene		ND		0.052	0.052
Pentachlorophenol		ND		0.10	0.10
Phenanthrene		ND		0.021	0.021
Anthracene		ND		0.021	0.021
Di-n-butyl phthalate		ND		0.21	0.21
Fluoranthene		ND		0.021	0.021
Pyrene		ND		0.021	0.021
Butyl benzyl phthalate		ND		0.10	0.10
3,3'-Dichlorobenzidine		ND		0.21	0.21
Benzo[a]anthracene		ND		0.026	0.026
Chrysene		ND		0.026	0.026
Bis(2-ethylhexyl) phthalate		ND		1.6	1.6
Di-n-octyl phthalate		ND		0.21	0.21
Benzofluoranthene		ND		0.041	0.041
Benzo[a]pyrene		ND		0.031	0.031
Indeno[1,2,3-cd]pyrene		ND		0.041	0.041
Dibenz(a,h)anthracene		ND		0.041	0.041
Benzo[g,h,i]perylene		ND		0.026	0.026
Carbazole		ND		0.16	0.16
1-Methylnaphthalene		ND		0.031	0.031
Benzo[b]fluoranthene		ND		0.021	0.021
Benzo[k]fluoranthene		ND		0.026	0.026
2,2'-oxybis[1-chloropropane]		ND		0.16	0.16

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	73	42 - 140
2,4,6-Tribromophenol	62	28 - 143
Terphenyl-d14	101	42 - 151
2-Fluorophenol	94	36 - 145
Nitrobenzene-d5	76	38 - 141
Phenol-d5	92	38 - 149



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-10**

Lab Sample ID: 580-9460-12

Date Sampled: 03/27/2008 1408

Client Matrix: Solid

% Moisture: 24.0

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09231.D
Dilution:	1.0		Initial Weight/Volume: 10.9072 g
Date Analyzed:	04/07/2008 1819		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Phenol		ND		0.12	0.12
Bis(2-chloroethyl)ether		ND		0.12	0.12
2-Chlorophenol		ND		0.12	0.12
1,3-Dichlorobenzene		ND		0.060	0.060
1,4-Dichlorobenzene		ND		0.060	0.060
Benzyl alcohol		ND		0.12	0.12
1,2-Dichlorobenzene		ND		0.060	0.060
2-Methylphenol		ND		0.12	0.12
3 & 4 Methylphenol		ND		0.24	0.24
N-Nitrosodi-n-propylamine		ND		0.12	0.12
Hexachloroethane		ND		0.12	0.12
Nitrobenzene		ND		0.12	0.12
Isophorone		ND		0.12	0.12
2-Nitrophenol		ND		0.12	0.12
2,4-Dimethylphenol		ND		0.12	0.12
Benzoic acid		ND		3.0	3.0
Bis(2-chloroethoxy)methane		ND		0.12	0.12
2,4-Dichlorophenol		ND		0.12	0.12
1,2,4-Trichlorobenzene		ND		0.060	0.060
Naphthalene		ND		0.024	0.024
4-Chloroaniline		ND		0.12	0.12
Hexachlorobutadiene		ND		0.060	0.060
4-Chloro-3-methylphenol		ND		0.12	0.12
2-Methylnaphthalene		ND		0.024	0.024
Hexachlorocyclopentadiene		ND		0.12	0.12
2,4,6-Trichlorophenol		ND		0.18	0.18
2,4,5-Trichlorophenol		ND		0.12	0.12
2-Chloronaphthalene		ND		0.024	0.024
2-Nitroaniline		ND		0.12	0.12
Dimethyl phthalate		ND		0.12	0.12
Acenaphthylene		ND		0.024	0.024
2,6-Dinitrotoluene		ND		0.12	0.12
3-Nitroaniline		ND		0.12	0.12
Acenaphthene		ND		0.024	0.024
2,4-Dinitrophenol		ND		1.2	1.2
4-Nitrophenol		ND		1.2	1.2
Dibenzofuran		ND		0.12	0.12
2,4-Dinitrotoluene		ND		0.12	0.12
Diethyl phthalate		ND		0.12	0.12
4-Chlorophenyl phenyl ether		ND		0.12	0.12
Fluorene		ND		0.024	0.024
4-Nitroaniline		ND		0.12	0.12
4,6-Dinitro-2-methylphenol		ND		1.2	1.2
N-Nitrosodiphenylamine		ND		0.060	0.060

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-10**

Lab Sample ID: 580-9460-12

Date Sampled: 03/27/2008 1408

Client Matrix: Solid

% Moisture: 24.0

Date Received: 03/28/2008 1410

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 580-30052	Instrument ID: SEA002
Preparation:	3550B	Prep Batch: 580-30000	Lab File ID: AT09231.D
Dilution:	1.0		Initial Weight/Volume: 10.9072 g
Date Analyzed:	04/07/2008 1819		Final Weight/Volume: 10 mL
Date Prepared:	04/07/2008 0855		Injection Volume:

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
4-Bromophenyl phenyl ether		ND		0.12	0.12
Hexachlorobenzene		ND		0.060	0.060
Pentachlorophenol		ND		0.12	0.12
Phenanthrene		ND		0.024	0.024
Anthracene		ND		0.024	0.024
Di-n-butyl phthalate		ND		0.24	0.24
Fluoranthene		ND		0.024	0.024
Pyrene		0.029		0.024	0.024
Butyl benzyl phthalate		ND		0.12	0.12
3,3'-Dichlorobenzidine		ND		0.24	0.24
Benzo[a]anthracene		ND		0.030	0.030
Chrysene		ND		0.030	0.030
Bis(2-ethylhexyl) phthalate		ND		1.8	1.8
Di-n-octyl phthalate		ND		0.24	0.24
Benzofluoranthene		ND		0.048	0.048
Benzo[a]pyrene		ND		0.036	0.036
Indeno[1,2,3-cd]pyrene		ND		0.048	0.048
Dibenz(a,h)anthracene		ND		0.048	0.048
Benzo[g,h,i]perylene		ND		0.030	0.030
Carbazole		ND		0.18	0.18
1-Methylnaphthalene		ND		0.036	0.036
Benzo[b]fluoranthene		ND		0.024	0.024
Benzo[k]fluoranthene		ND		0.030	0.030
2,2'-oxybis[1-chloropropane]		ND		0.18	0.18

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	71	42 - 140
2,4,6-Tribromophenol	59	28 - 143
Terphenyl-d14	98	42 - 151
2-Fluorophenol	92	36 - 145
Nitrobenzene-d5	72	38 - 141
Phenol-d5	90	38 - 149

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-6**

Lab Sample ID: 580-9460-2

Date Sampled: 03/27/2008 0830

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/28/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012978.D

Dilution: 1.0

Initial Weight/Volume: 11.18 g

Date Analyzed: 04/02/2008 1712

Final Weight/Volume: 401.8 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.3	4.3
Surrogate		%Rec			Acceptance Limits
4-Bromofluorobenzene (Surr)		106			50 - 150
Trifluorotoluene (Surr)		90			50 - 150
Ethylbenzene-d10		108			50 - 150
Fluorobenzene (Surr)		104			50 - 150
Toluene-d8 (Surr)		111			50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-9**

Lab Sample ID: 580-9460-3

Date Sampled: 03/27/2008 0835

Client Matrix: Solid

% Moisture: 22.2

Date Received: 03/28/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012979.D

Dilution: 1.0

Initial Weight/Volume: 11.14 g

Date Analyzed: 04/02/2008 1734

Final Weight/Volume: 402.5 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.6	4.6

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	88	50 - 150
Ethylbenzene-d10	108	50 - 150
Fluorobenzene (Surr)	105	50 - 150
Toluene-d8 (Surr)	111	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-7**

Lab Sample ID: 580-9460-5

Date Sampled: 03/27/2008 1010

Client Matrix: Solid

% Moisture: 22.8

Date Received: 03/28/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012982.D

Dilution: 1.0

Initial Weight/Volume: 9.9 g

Date Analyzed: 04/02/2008 1838

Final Weight/Volume: 402.2 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		5.3	5.3

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Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	83	50 - 150
Ethylbenzene-d10	108	50 - 150
Fluorobenzene (Surr)	105	50 - 150
Toluene-d8 (Surr)	111	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-10**

Lab Sample ID: 580-9460-6

Date Sampled: 03/27/2008 1020

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/28/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012983.D

Dilution: 1.0

Initial Weight/Volume: 6.15 g

Date Analyzed: 04/02/2008 1900

Final Weight/Volume: 401.4 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		8.5	8.5

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	85	50 - 150
Ethylbenzene-d10	108	50 - 150
Fluorobenzene (Surr)	105	50 - 150
Toluene-d8 (Surr)	111	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-7**

Lab Sample ID: 580-9460-8

Date Sampled: 03/27/2008 1125

Client Matrix: Solid

% Moisture: 28.7

Date Received: 03/28/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012984.D

Dilution: 1.0

Initial Weight/Volume: 10.11 g

Date Analyzed: 04/02/2008 1922

Final Weight/Volume: 402.9 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

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Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		5.6	5.6

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Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	102	50 - 150
Ethylbenzene-d10	108	50 - 150
Fluorobenzene (Surr)	104	50 - 150
Toluene-d8 (Surr)	111	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-10**

Lab Sample ID: 580-9460-9

Date Sampled: 03/27/2008 1130

Client Matrix: Solid

% Moisture: 16.6

Date Received: 03/28/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012985.D

Dilution: 1.0

Initial Weight/Volume: 11.72 g

Date Analyzed: 04/02/2008 1943

Final Weight/Volume: 401.9 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.1	4.1
Surrogate		%Rec			Acceptance Limits
4-Bromofluorobenzene (Surr)		107			50 - 150
Trifluorotoluene (Surr)		94			50 - 150
Ethylbenzene-d10		108			50 - 150
Fluorobenzene (Surr)		105			50 - 150
Toluene-d8 (Surr)		111			50 - 150



# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-7**

Lab Sample ID: 580-9460-11

Date Sampled: 03/27/2008 1402

Client Matrix: Solid

% Moisture: 9.9

Date Received: 03/28/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012986.D

Dilution: 1.0

Initial Weight/Volume: 11.24 g

Date Analyzed: 04/02/2008 2005

Final Weight/Volume: 401.0 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.0	4.0

---

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	107	50 - 150
Trifluorotoluene (Surr)	93	50 - 150
Ethylbenzene-d10	108	50 - 150
Fluorobenzene (Surr)	104	50 - 150
Toluene-d8 (Surr)	111	50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-10**

Lab Sample ID: 580-9460-12

Date Sampled: 03/27/2008 1408

Client Matrix: Solid

% Moisture: 24.0

Date Received: 03/28/2008 1410

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## NWTPH-Gx Volatile Petroleum Products

Method: NWTPH-Gx

Analysis Batch: 580-29917

Instrument ID: SEA041

Preparation: 5035-Medium

Prep Batch: 580-29857

Lab File ID: Gx0012987.D

Dilution: 1.0

Initial Weight/Volume: 11.56 g

Date Analyzed: 04/02/2008 2026

Final Weight/Volume: 405.7 mL

Date Prepared: 04/02/2008 0805

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Gasoline		ND		4.6	4.6
Surrogate		%Rec			Acceptance Limits
4-Bromofluorobenzene (Surr)		107			50 - 150
Trifluorotoluene (Surr)		93			50 - 150
Ethylbenzene-d10		108			50 - 150
Fluorobenzene (Surr)		105			50 - 150
Toluene-d8 (Surr)		111			50 - 150

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

Client Sample ID: MW8-032708-6

Lab Sample ID: 580-9460-2

Date Sampled: 03/27/2008 0830

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/28/2008 1410

## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30005

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15044.D

Dilution: 5.0

Initial Weight/Volume: 10.3807 g

Date Analyzed: 04/03/2008 2055

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.11	0.11
PCB-1221		ND		0.11	0.11
PCB-1232		ND		0.11	0.11
PCB-1242		ND		0.11	0.11
PCB-1248		ND		0.11	0.11
PCB-1254		ND		0.11	0.11
PCB-1260		ND	*	0.11	0.11

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	149	50 - 150
Tetrachloro-m-xylene	138	45 - 155

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-9**

Lab Sample ID: 580-9460-3

Date Sampled: 03/27/2008 0835

Client Matrix: Solid

% Moisture: 22.2

Date Received: 03/28/2008 1410

### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30005

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15047.D

Dilution: 5.0

Initial Weight/Volume: 10.8758 g

Date Analyzed: 04/03/2008 2206

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.12	0.12
PCB-1221		ND		0.12	0.12
PCB-1232		ND		0.12	0.12
PCB-1242		ND		0.12	0.12
PCB-1248		ND		0.12	0.12
PCB-1254		ND		0.12	0.12
PCB-1260		ND	*	0.12	0.12
Surrogate		%Rec		Acceptance Limits	
DCB Decachlorobiphenyl		153	X	50 - 150	
Tetrachloro-m-xylene		140		45 - 155	

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

Client Sample ID: MW7-032708-7

Lab Sample ID: 580-9460-5

Date Sampled: 03/27/2008 1010

Client Matrix: Solid

% Moisture: 22.8

Date Received: 03/28/2008 1410

## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30006

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15097.D

Dilution: 5.0

Initial Weight/Volume: 10.9474 g

Date Analyzed: 04/04/2008 1750

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.12	0.12
PCB-1221		ND		0.12	0.12
PCB-1232		ND		0.12	0.12
PCB-1242		ND		0.12	0.12
PCB-1248		ND		0.12	0.12
PCB-1254		ND		0.12	0.12
PCB-1260		ND	*	0.12	0.12
Surrogate		%Rec		Acceptance Limits	
DCB Decachlorobiphenyl		176	X	50 - 150	
Tetrachloro-m-xylene		140		45 - 155	

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-10**

Lab Sample ID: 580-9460-6

Date Sampled: 03/27/2008 1020

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/28/2008 1410

### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30006

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15098.D

Dilution: 5.0

Initial Weight/Volume: 10.8614 g

Date Analyzed: 04/04/2008 1814

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.12	0.12
PCB-1221		ND		0.12	0.12
PCB-1232		ND		0.12	0.12
PCB-1242		ND		0.12	0.12
PCB-1248		ND		0.12	0.12
PCB-1254		ND		0.12	0.12
PCB-1260		ND	*	0.12	0.12

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	199	X	50 - 150
Tetrachloro-m-xylene	155		45 - 155

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

Client Sample ID: MW6-032708-7

Lab Sample ID: 580-9460-8

Date Sampled: 03/27/2008 1125

Client Matrix: Solid

% Moisture: 28.7

Date Received: 03/28/2008 1410

## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 580-30006	Instrument ID:	SEA034
Preparation:	3550B	Prep Batch: 580-29867	Lab File ID:	PCB15090.D
Dilution:	5.0		Initial Weight/Volume:	10.9946 g
Date Analyzed:	04/04/2008 1504		Final Weight/Volume:	20 mL
Date Prepared:	04/02/2008 0927		Injection Volume:	
			Column ID:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.13	0.13
PCB-1221		ND		0.13	0.13
PCB-1232		ND		0.13	0.13
PCB-1242		ND		0.13	0.13
PCB-1248		ND		0.13	0.13
PCB-1254		ND		0.13	0.13
PCB-1260		ND	*	0.13	0.13

Surrogate	%Rec		Acceptance Limits
DCB Decachlorobiphenyl	174	X	50 - 150
Tetrachloro-m-xylene	156	X	45 - 155

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-10**

Lab Sample ID: 580-9460-9

Date Sampled: 03/27/2008 1130

Client Matrix: Solid

% Moisture: 16.6

Date Received: 03/28/2008 1410

### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30006

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15099.D

Dilution: 5.0

Initial Weight/Volume: 10.5196 g

Date Analyzed: 04/04/2008 1837

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.11	0.11
PCB-1221		ND		0.11	0.11
PCB-1232		ND		0.11	0.11
PCB-1242		ND		0.11	0.11
PCB-1248		ND		0.11	0.11
PCB-1254		ND		0.11	0.11
PCB-1260		ND	*	0.11	0.11
Surrogate		%Rec		Acceptance Limits	
DCB Decachlorobiphenyl		200	X	50 - 150	
Tetrachloro-m-xylene		141		45 - 155	



# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

Client Sample ID: MW9-032708-7

Lab Sample ID: 580-9460-11

Date Sampled: 03/27/2008 1402

Client Matrix: Solid

% Moisture: 9.9

Date Received: 03/28/2008 1410

## 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082 Analysis Batch: 580-30005 Instrument ID: SEA034  
Preparation: 3550B Prep Batch: 580-29867 Lab File ID: PCB15053.D  
Dilution: 5.0 Initial Weight/Volume: 10.1764 g  
Date Analyzed: 04/04/2008 0028 Final Weight/Volume: 20 mL  
Date Prepared: 04/02/2008 0927 Injection Volume:  
Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.11	0.11
PCB-1221		ND		0.11	0.11
PCB-1232		ND		0.11	0.11
PCB-1242		ND		0.11	0.11
PCB-1248		ND		0.11	0.11
PCB-1254		ND		0.11	0.11
PCB-1260		ND	*	0.11	0.11

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	143	50 - 150
Tetrachloro-m-xylene	141	45 - 155

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-10**

Lab Sample ID: 580-9460-12

Date Sampled: 03/27/2008 1408

Client Matrix: Solid

% Moisture: 24.0

Date Received: 03/28/2008 1410

### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082

Analysis Batch: 580-30005

Instrument ID: SEA034

Preparation: 3550B

Prep Batch: 580-29867

Lab File ID: PCB15054.D

Dilution: 5.0

Initial Weight/Volume: 10.6324 g

Date Analyzed: 04/04/2008 0052

Final Weight/Volume: 20 mL

Date Prepared: 04/02/2008 0927

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
PCB-1016		ND		0.12	0.12
PCB-1221		ND		0.12	0.12
PCB-1232		ND		0.12	0.12
PCB-1242		ND		0.12	0.12
PCB-1248		ND		0.12	0.12
PCB-1254		ND		0.12	0.12
PCB-1260		ND	*	0.12	0.12

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	175	X	50 - 150
Tetrachloro-m-xylene	155		45 - 155

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

Client Sample ID: MW8-032708-6

Lab Sample ID: 580-9460-2

Date Sampled: 03/27/2008 0830

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/28/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-29984

Lab File ID: EP23776.D

Dilution: 1.0

Initial Weight/Volume: 10.1150 g

Date Analyzed: 04/09/2008 1205

Final Weight/Volume: 10 mL

Date Prepared: 04/04/2008 1505

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		59	59
#2 Diesel (C10-C24)		ND		29	29
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		114			50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-9**

Lab Sample ID: 580-9460-3

Date Sampled: 03/27/2008 0835

Client Matrix: Solid

% Moisture: 22.2

Date Received: 03/28/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-29984

Lab File ID: EP23778.D

Dilution: 1.0

Initial Weight/Volume: 10.7751 g

Date Analyzed: 04/09/2008 1247

Final Weight/Volume: 10 mL

Date Prepared: 04/04/2008 1505

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		60	60
#2 Diesel (C10-C24)		ND		30	30
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		104			50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-7**

Lab Sample ID: 580-9460-5

Date Sampled: 03/27/2008 1010

Client Matrix: Solid

% Moisture: 22.8

Date Received: 03/28/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30081

Lab File ID: EP23789.D

Dilution: 1.0

Initial Weight/Volume: 10.8162 g

Date Analyzed: 04/09/2008 1658

Final Weight/Volume: 10 mL

Date Prepared: 04/08/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		60	60
#2 Diesel (C10-C24)		ND		30	30
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		99			50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-10**

Lab Sample ID: 580-9460-6

Date Sampled: 03/27/2008 1020

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/28/2008 1410

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method:	NWTPH-Dx	Analysis Batch: 580-30147	Instrument ID: SEA016
Preparation:	3550B	Prep Batch: 580-30081	Lab File ID: EP23791.D
Dilution:	1.0		Initial Weight/Volume: 10.9214 g
Date Analyzed:	04/09/2008 1739		Final Weight/Volume: 10 mL
Date Prepared:	04/08/2008 1452		Injection Volume:
			Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		290		60	60

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	76	50 - 150

Method:	NWTPH-Dx	Analysis Batch: 580-30202	Instrument ID: SEA013
Preparation:	3550B	Prep Batch: 580-30081	Lab File ID: FA34414.D
Dilution:	1.0		Initial Weight/Volume: 10.9214 g
Date Analyzed:	04/10/2008 1453		Final Weight/Volume: 10 mL
Date Prepared:	04/08/2008 1452		Injection Volume:
			Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
#2 Diesel (C10-C24)		120		30	30

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-7**

Lab Sample ID: 580-9460-8

Date Sampled: 03/27/2008 1125

Client Matrix: Solid

% Moisture: 28.7

Date Received: 03/28/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30236

Instrument ID: SEA013

Preparation: 3550B

Prep Batch: 580-29872

Lab File ID: FA34439.D

Dilution: 1.0

Initial Weight/Volume: 10.0518 g

Date Analyzed: 04/11/2008 1632

Final Weight/Volume: 10 mL

Date Prepared: 04/02/2008 1033

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		350		70	70
#2 Diesel (C10-C24)		75		35	35
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		115			50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

Client Sample ID: MW6-032708-10

Lab Sample ID: 580-9460-9

Date Sampled: 03/27/2008 1130

Client Matrix: Solid

% Moisture: 16.6

Date Received: 03/28/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30081

Lab File ID: EP23792.D

Dilution: 1.0

Initial Weight/Volume: 10.7474 g

Date Analyzed: 04/09/2008 1800

Final Weight/Volume: 10 mL

Date Prepared: 04/08/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		56	56
#2 Diesel (C10-C24)		ND		28	28
Surrogate		%Rec		Acceptance Limits	
o-Terphenyl		101		50 - 150	



## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

Client Sample ID: MW9-032708-7

Lab Sample ID: 580-9460-11

Date Sampled: 03/27/2008 1402

Client Matrix: Solid

% Moisture: 9.9

Date Received: 03/28/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-29984

Lab File ID: EP23779.D

Dilution: 1.0

Initial Weight/Volume: 10.7401 g

Date Analyzed: 04/09/2008 1308

Final Weight/Volume: 10 mL

Date Prepared: 04/04/2008 1505

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		52	52
#2 Diesel (C10-C24)		ND		26	26
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		128			50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-10**

Lab Sample ID: 580-9460-12

Date Sampled: 03/27/2008 1408

Client Matrix: Solid

% Moisture: 24.0

Date Received: 03/28/2008 1410

---

### NWTPH-Dx Semi-Volatile Petroleum Products by NWTPH-Dx

Method: NWTPH-Dx

Analysis Batch: 580-30147

Instrument ID: SEA016

Preparation: 3550B

Prep Batch: 580-30081

Lab File ID: EP23793.D

Dilution: 1.0

Initial Weight/Volume: 10.8277 g

Date Analyzed: 04/09/2008 1821

Final Weight/Volume: 10 mL

Date Prepared: 04/08/2008 1452

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Motor Oil (>C24-C36)		ND		61	61
#2 Diesel (C10-C24)		ND		30	30
Surrogate		%Rec			Acceptance Limits
o-Terphenyl		87			50 - 150

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

### Client Sample ID: MW8-032708-6

Lab Sample ID: 580-9460-2

Date Sampled: 03/27/2008 0830

Client Matrix: Solid

% Moisture: 16.0

Date Received: 03/28/2008 1410

#### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0159 g

Date Analyzed: 04/01/2008 1906

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		ND		3.5	3.5
Barium		6.3		0.59	0.59
Cadmium		ND		0.59	0.59
Chromium		10		1.5	1.5
Lead		ND		1.8	1.8
Selenium		ND		5.9	5.9
Silver		ND		1.2	1.2

#### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5102 g

Date Analyzed: 04/02/2008 1000

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.023	0.023

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW8-032708-9**

Lab Sample ID: 580-9460-3

Date Sampled: 03/27/2008 0835

Client Matrix: Solid

% Moisture: 22.2

Date Received: 03/28/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0077 g

Date Analyzed: 04/01/2008 1940

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		ND		3.8	3.8
Barium		7.3		0.64	0.64
Cadmium		ND		0.64	0.64
Chromium		12		1.7	1.7
Lead		ND		1.9	1.9
Selenium		ND		6.4	6.4
Silver		ND		1.3	1.3

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5641 g

Date Analyzed: 04/02/2008 1018

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.023	0.023

---

# Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-7**

Lab Sample ID: 580-9460-5

Date Sampled: 03/27/2008 1010

Client Matrix: Solid

% Moisture: 22.8

Date Received: 03/28/2008 1410

---

## 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0298 g

Date Analyzed: 04/01/2008 1942

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		9.7		3.8	3.8
Barium		150		0.63	0.63
Cadmium		ND		0.63	0.63
Chromium		36		1.6	1.6
Lead		14		1.9	1.9
Selenium		ND		6.3	6.3
Silver		ND		1.3	1.3

---

## 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5178 g

Date Analyzed: 04/02/2008 1021

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.025	0.025

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW7-032708-10**

Lab Sample ID: 580-9460-6

Date Sampled: 03/27/2008 1020

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/28/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0849 g

Date Analyzed: 04/01/2008 1945

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		8.0		3.6	3.6
Barium		69		0.60	0.60
Cadmium		ND		0.60	0.60
Chromium		20		1.6	1.6
Lead		26		1.8	1.8
Selenium		ND		6.0	6.0
Silver		ND		1.2	1.2

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5167 g

Date Analyzed: 04/02/2008 1032

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.025	0.025

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-7**

Lab Sample ID: 580-9460-8

Date Sampled: 03/27/2008 1125

Client Matrix: Solid

% Moisture: 28.7

Date Received: 03/28/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0205 g

Date Analyzed: 04/01/2008 1948

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		5.5		4.1	4.1
Barium		37		0.69	0.69
Cadmium		ND		0.69	0.69
Chromium		15		1.8	1.8
Lead		63		2.1	2.1
Selenium		ND		6.9	6.9
Silver		ND		1.4	1.4

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5066 g

Date Analyzed: 04/02/2008 1035

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		0.13		0.028	0.028

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW6-032708-10**

Lab Sample ID: 580-9460-9

Date Sampled: 03/27/2008 1130

Client Matrix: Solid

% Moisture: 16.6

Date Received: 03/28/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0824 g

Date Analyzed: 04/01/2008 1952

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		ND		3.3	3.3
Barium		10		0.55	0.55
Cadmium		ND		0.55	0.55
Chromium		10		1.4	1.4
Lead		3.2		1.7	1.7
Selenium		ND		5.5	5.5
Silver		ND		1.1	1.1

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5294 g

Date Analyzed: 04/02/2008 1039

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

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Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.023	0.023

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## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-7**

Lab Sample ID: 580-9460-11

Date Sampled: 03/27/2008 1402

Client Matrix: Solid

% Moisture: 9.9

Date Received: 03/28/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0440 g

Date Analyzed: 04/01/2008 1955

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		ND		3.2	3.2
Barium		4.8		0.53	0.53
Cadmium		ND		0.53	0.53
Chromium		8.6		1.4	1.4
Lead		ND		1.6	1.6
Selenium		ND		5.3	5.3
Silver		ND		1.1	1.1

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5079 g

Date Analyzed: 04/02/2008 1042

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.022	0.022

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Client Sample ID: MW9-032708-10**

Lab Sample ID: 580-9460-12

Date Sampled: 03/27/2008 1408

Client Matrix: Solid

% Moisture: 24.0

Date Received: 03/28/2008 1410

---

### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 580-29862

Instrument ID: SEA027

Preparation: 3050B

Prep Batch: 580-29840

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.0434 g

Date Analyzed: 04/01/2008 1958

Final Weight/Volume: 50 mL

Date Prepared: 04/01/2008 1104

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Arsenic		ND		3.8	3.8
Barium		9.0		0.63	0.63
Cadmium		ND		0.63	0.63
Chromium		11		1.6	1.6
Lead		2.1		1.9	1.9
Selenium		ND		6.3	6.3
Silver		ND		1.3	1.3

---

### 7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A

Analysis Batch: 580-29881

Instrument ID: SEA029

Preparation: 7471A

Prep Batch: 580-29846

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 0.5272 g

Date Analyzed: 04/02/2008 1046

Final Weight/Volume: 50 mL

Date Prepared: 04/02/2008 0820

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Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Mercury		ND		0.025	0.025

---

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

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### General Chemistry

**Client Sample ID: MW8-032708-6**

Lab Sample ID: 580-9460-2  
Client Matrix: Solid

Date Sampled: 03/27/2008 0830  
Date Received: 03/28/2008 1410

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	84		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			
Percent Moisture	16		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			

**Client Sample ID: MW8-032708-9**

Lab Sample ID: 580-9460-3  
Client Matrix: Solid

Date Sampled: 03/27/2008 0835  
Date Received: 03/28/2008 1410

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	78		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			
Percent Moisture	22		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			

**Client Sample ID: MW7-032708-7**

Lab Sample ID: 580-9460-5  
Client Matrix: Solid

Date Sampled: 03/27/2008 1010  
Date Received: 03/28/2008 1410

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	77		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			
Percent Moisture	23		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

### General Chemistry

**Client Sample ID: MW7-032708-10**

Lab Sample ID: 580-9460-6  
Client Matrix: Solid

Date Sampled: 03/27/2008 1020  
Date Received: 03/28/2008 1410

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	77		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			
Percent Moisture	23		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			

**Client Sample ID: MW6-032708-7**

Lab Sample ID: 580-9460-8  
Client Matrix: Solid

Date Sampled: 03/27/2008 1125  
Date Received: 03/28/2008 1410

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	71		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			
Percent Moisture	29		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			

**Client Sample ID: MW6-032708-10**

Lab Sample ID: 580-9460-9  
Client Matrix: Solid

Date Sampled: 03/27/2008 1130  
Date Received: 03/28/2008 1410

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	83		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			
Percent Moisture	17		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			

**Client Sample ID: MW9-032708-7**

Lab Sample ID: 580-9460-11  
Client Matrix: Solid

Date Sampled: 03/27/2008 1402  
Date Received: 03/28/2008 1410

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			
Percent Moisture	9.9		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			

## Analytical Data

Client: GeoEngineers Inc

Job Number: 580-9460-1

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### General Chemistry

**Client Sample ID:** MW9-032708-10

Lab Sample ID: 580-9460-12

Date Sampled: 03/27/2008 1408

Client Matrix: Solid

Date Received: 03/28/2008 1410

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	76		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			
Percent Moisture	24		%	0.10	0.10	1.0	PercentMoisture
	Anly Batch: 580-29825	Date Analyzed		04/01/2008 0909			

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Method Blank - Batch: 580-29857**

**Method: 8260B  
Preparation: 5035**

Lab Sample ID: MB 580-29857/1-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/02/2008 0933  
 Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29905  
 Prep Batch: 580-29857  
 Units: mg/Kg

Instrument ID: SEA043  
 Lab File ID: VB00100960.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 400 mL

Analyte	Result	Qual	MDL	RL
Dichlorodifluoromethane	ND		0.0056	0.040
Chloromethane	ND		0.0073	0.040
Vinyl chloride	ND		0.0052	0.016
Bromomethane	ND		0.028	0.20
Chloroethane	ND		0.029	0.20
Trichlorofluoromethane	ND		0.0038	0.040
1,1-Dichloroethene	ND		0.0053	0.016
Methylene Chloride	0.0096	J	0.0061	0.040
trans-1,2-Dichloroethene	ND		0.0043	0.040
1,1-Dichloroethane	ND		0.0095	0.040
2,2-Dichloropropane	ND		0.0047	0.040
cis-1,2-Dichloroethene	ND		0.0060	0.040
Chlorobromomethane	ND		0.0048	0.040
Chloroform	ND		0.0038	0.040
1,1,1-Trichloroethane	ND		0.0039	0.016
Carbon tetrachloride	ND		0.0030	0.016
1,1-Dichloropropene	ND		0.0031	0.040
1,1,1,2-Tetrachloroethane	ND		0.0038	0.040
Benzene	ND		0.0028	0.0080
1,2-Dichloroethane	ND		0.0081	0.040
Trichloroethene	ND		0.0030	0.016
1,2-Dichloropropane	ND		0.0025	0.0080
Dibromomethane	ND		0.0073	0.040
Dichlorobromomethane	ND		0.0028	0.040
cis-1,3-Dichloropropene	ND		0.0028	0.040
Toluene	ND		0.0074	0.040
trans-1,3-Dichloropropene	ND		0.0028	0.040
1,1,2-Trichloroethane	ND		0.0036	0.040
Tetrachloroethene	ND		0.0073	0.025
1,3-Dichloropropane	ND		0.0042	0.016
Chlorodibromomethane	ND		0.0025	0.040
Ethylene Dibromide	ND		0.0066	0.040
Chlorobenzene	ND		0.012	0.040
Ethylbenzene	ND		0.0072	0.040
1,1,2,2-Tetrachloroethane	ND		0.0024	0.0080
m-Xylene & p-Xylene	ND		0.015	0.040
o-Xylene	ND		0.0072	0.040
Styrene	ND		0.0032	0.040
Bromoform	ND		0.0028	0.040
Isopropylbenzene	ND		0.0061	0.040
Bromobenzene	ND		0.0036	0.040

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Method Blank - Batch: 580-29857**

**Method: 8260B  
Preparation: 5035**

Lab Sample ID: MB 580-29857/1-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/02/2008 0933  
 Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29905  
 Prep Batch: 580-29857  
 Units: mg/Kg

Instrument ID: SEA043  
 Lab File ID: VB00100960.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 400 mL

Analyte	Result	Qual	MDL	RL
N-Propylbenzene	ND		0.0069	0.040
1,2,3-Trichloropropane	ND		0.0071	0.040
2-Chlorotoluene	ND		0.0058	0.040
1,3,5-Trimethylbenzene	ND		0.0060	0.040
4-Chlorotoluene	ND		0.0035	0.040
tert-Butylbenzene	ND		0.0034	0.040
1,2,4-Trimethylbenzene	ND		0.0069	0.040
sec-Butylbenzene	ND		0.0016	0.040
1,3-Dichlorobenzene	ND		0.0041	0.040
4-Isopropyltoluene	ND		0.0028	0.040
1,4-Dichlorobenzene	ND		0.0020	0.040
n-Butylbenzene	ND		0.0024	0.040
1,2-Dichlorobenzene	ND		0.0034	0.040
1,2-Dibromo-3-Chloropropane	ND		0.0088	0.040
1,2,4-Trichlorobenzene	ND		0.0039	0.040
1,2,3-Trichlorobenzene	ND		0.0048	0.040
Hexachlorobutadiene	ND		0.0066	0.040
Naphthalene	ND		0.0026	0.040
Surrogate	% Rec	Acceptance Limits		
Ethylbenzene-d10	104	75 - 125		
Fluorobenzene (Surr)	94	75 - 125		
Toluene-d8 (Surr)	102	85 - 115		
4-Bromofluorobenzene (Surr)	103	85 - 120		
Trifluorotoluene (Surr)	113	75 - 125		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

### Lab Control Spike - Batch: 580-29857

**Method: 8260B**  
**Preparation: 5035**

Lab Sample ID: LCS 580-29857/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 0956  
Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29905  
Prep Batch: 580-29857  
Units: mg/Kg

Instrument ID: SEA043  
Lab File ID: VB00100961.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 400 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethene	0.200	0.134	67	65 - 135	
Benzene	0.200	0.169	85	75 - 125	
Trichloroethene	0.200	0.174	87	75 - 125	
Toluene	0.200	0.193	97	70 - 125	
Chlorobenzene	0.200	0.189	94	75 - 125	
Surrogate			% Rec	Acceptance Limits	
Ethylbenzene-d10			107	75 - 125	
Fluorobenzene (Surr)			94	75 - 125	
Toluene-d8 (Surr)			104	85 - 115	
4-Bromofluorobenzene (Surr)			105	85 - 120	
Trifluorotoluene (Surr)			108	75 - 125	

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-29857**

**Method: 8260B  
Preparation: 5035**

MS Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 1751  
Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29905  
Prep Batch: 580-29857

Instrument ID: SEA043  
Lab File ID: VB00101000.D  
Initial Weight/Volume: 11.18 g  
Final Weight/Volume: 401.8 mL

MSD Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 1814  
Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29905  
Prep Batch: 580-29857

Instrument ID: SEA043  
Lab File ID: VB00101002.D  
Initial Weight/Volume: 11.18 g  
Final Weight/Volume: 401.8 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
1,1-Dichloroethene	81	77	65 - 135	5	30		
Benzene	102	92	75 - 125	10	30		
Trichloroethene	117	107	75 - 125	9	30		
Toluene	111	101	70 - 125	10	30		
Chlorobenzene	115	107	75 - 125	7	30		
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
Ethylbenzene-d10	104		105		75 - 125		
Fluorobenzene (Surr)	93		92		75 - 125		
Toluene-d8 (Surr)	104		102		85 - 115		
4-Bromofluorobenzene (Surr)	107		108		85 - 120		
Trifluorotoluene (Surr)	94		92		75 - 125		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Method Blank - Batch: 580-30000**

**Method: 8270C**

**Preparation: 3550B**

Lab Sample ID: MB 580-30000/1-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/07/2008 1444  
 Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
 Prep Batch: 580-30000  
 Units: mg/Kg

Instrument ID: SEA002  
 Lab File ID: AT09220.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Result	Qual	RL	RL
Phenol	ND		0.10	0.10
Bis(2-chloroethyl)ether	ND		0.10	0.10
2-Chlorophenol	ND		0.10	0.10
1,3-Dichlorobenzene	ND		0.050	0.050
1,4-Dichlorobenzene	ND		0.050	0.050
Benzyl alcohol	ND		0.10	0.10
1,2-Dichlorobenzene	ND		0.050	0.050
2-Methylphenol	ND		0.10	0.10
3 & 4 Methylphenol	ND		0.20	0.20
N-Nitrosodi-n-propylamine	ND		0.10	0.10
Hexachloroethane	ND		0.10	0.10
Nitrobenzene	ND		0.10	0.10
Isophorone	ND		0.10	0.10
2-Nitrophenol	ND		0.10	0.10
2,4-Dimethylphenol	ND		0.10	0.10
Benzoic acid	ND		2.5	2.5
Bis(2-chloroethoxy)methane	ND		0.10	0.10
2,4-Dichlorophenol	ND		0.10	0.10
1,2,4-Trichlorobenzene	ND		0.050	0.050
Naphthalene	ND		0.020	0.020
4-Chloroaniline	ND		0.10	0.10
Hexachlorobutadiene	ND		0.050	0.050
4-Chloro-3-methylphenol	ND		0.10	0.10
2-Methylnaphthalene	ND		0.020	0.020
Hexachlorocyclopentadiene	ND		0.10	0.10
2,4,6-Trichlorophenol	ND		0.15	0.15
2,4,5-Trichlorophenol	ND		0.10	0.10
2-Chloronaphthalene	ND		0.020	0.020
2-Nitroaniline	ND		0.10	0.10
Dimethyl phthalate	ND		0.10	0.10
Acenaphthylene	ND		0.020	0.020
2,6-Dinitrotoluene	ND		0.10	0.10
3-Nitroaniline	ND		0.10	0.10
Acenaphthene	ND		0.020	0.020
2,4-Dinitrophenol	ND		1.0	1.0
4-Nitrophenol	ND		1.0	1.0
Dibenzofuran	ND		0.10	0.10
2,4-Dinitrotoluene	ND		0.10	0.10
Diethyl phthalate	ND		0.10	0.10
4-Chlorophenyl phenyl ether	ND		0.10	0.10
Fluorene	ND		0.020	0.020

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Method Blank - Batch: 580-30000**

**Method: 8270C  
Preparation: 3550B**

Lab Sample ID: MB 580-30000/1-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/07/2008 1444  
 Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
 Prep Batch: 580-30000  
 Units: mg/Kg

Instrument ID: SEA002  
 Lab File ID: AT09220.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Result	Qual	RL	RL
4-Nitroaniline	ND		0.10	0.10
4,6-Dinitro-2-methylphenol	ND		1.0	1.0
N-Nitrosodiphenylamine	ND		0.050	0.050
4-Bromophenyl phenyl ether	ND		0.10	0.10
Hexachlorobenzene	ND		0.050	0.050
Pentachlorophenol	ND		0.10	0.10
Phenanthrene	ND		0.020	0.020
Anthracene	ND		0.020	0.020
Di-n-butyl phthalate	ND		0.20	0.20
Fluoranthene	ND		0.020	0.020
Pyrene	ND		0.020	0.020
Butyl benzyl phthalate	ND		0.10	0.10
3,3'-Dichlorobenzidine	ND		0.20	0.20
Benzo[a]anthracene	ND		0.025	0.025
Chrysene	ND		0.025	0.025
Bis(2-ethylhexyl) phthalate	ND		1.5	1.5
Di-n-octyl phthalate	ND		0.20	0.20
Benzofluoranthene	ND		0.040	0.040
Benzo[a]pyrene	ND		0.030	0.030
Indeno[1,2,3-cd]pyrene	ND		0.040	0.040
Dibenz(a,h)anthracene	ND		0.040	0.040
Benzo[g,h,i]perylene	ND		0.025	0.025
Carbazole	ND		0.15	0.15
1-Methylnaphthalene	ND		0.030	0.030
Benzo[b]fluoranthene	ND		0.020	0.020
Benzo[k]fluoranthene	ND		0.025	0.025
2,2'-oxybis[1-chloropropane]	ND		0.15	0.15

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	85	42 - 140
2,4,6-Tribromophenol	57	28 - 143
Terphenyl-d14	96	42 - 151
2-Fluorophenol	97	36 - 145
Nitrobenzene-d5	81	38 - 141
Phenol-d5	97	38 - 149

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Lab Control Spike - Batch: 580-30000**

**Method: 8270C**  
**Preparation: 3550B**

Lab Sample ID: LCS 580-30000/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1504  
Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
Prep Batch: 580-30000  
Units: mg/Kg

Instrument ID: SEA002  
Lab File ID: AT09221.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenol	1.00	0.961	96	66 - 126	
Bis(2-chloroethyl)ether	1.00	0.901	90	57 - 122	
2-Chlorophenol	1.00	0.955	96	65 - 125	
1,3-Dichlorobenzene	1.00	0.916	92	64 - 124	
1,4-Dichlorobenzene	1.00	0.845	84	62 - 132	
Benzyl alcohol	1.00	0.928	93	42 - 147	
1,2-Dichlorobenzene	1.00	0.877	88	68 - 118	
2-Methylphenol	1.00	0.942	94	56 - 121	
3 & 4 Methylphenol	1.00	0.954	95	61 - 126	
N-Nitrosodi-n-propylamine	1.00	0.956	96	52 - 127	
Hexachloroethane	1.00	0.866	87	56 - 131	
Nitrobenzene	1.00	0.908	91	59 - 134	
Isophorone	1.00	0.920	92	53 - 118	
2-Nitrophenol	1.00	0.876	88	58 - 128	
2,4-Dimethylphenol	1.00	0.966	97	58 - 133	
Benzoic acid	5.00	3.94	79	10 - 130	
Bis(2-chloroethoxy)methane	1.00	0.910	91	63 - 128	
2,4-Dichlorophenol	1.00	0.957	96	59 - 124	
1,2,4-Trichlorobenzene	1.00	0.876	88	63 - 128	
Naphthalene	1.00	0.863	86	64 - 129	
4-Chloroaniline	1.00	0.882	88	20 - 181	
Hexachlorobutadiene	1.00	0.848	85	59 - 134	
4-Chloro-3-methylphenol	1.00	0.963	96	58 - 128	
2-Methylnaphthalene	1.00	0.915	92	65 - 125	
Hexachlorocyclopentadiene	1.00	0.975	97	30 - 132	
2,4,6-Trichlorophenol	1.00	0.886	89	66 - 131	
2,4,5-Trichlorophenol	1.00	1.02	102	64 - 124	
2-Chloronaphthalene	1.00	0.885	89	69 - 129	
2-Nitroaniline	1.00	0.915	91	58 - 133	
Dimethyl phthalate	1.00	0.939	94	65 - 125	
Acenaphthylene	1.00	1.01	101	69 - 129	
2,6-Dinitrotoluene	1.00	0.954	95	65 - 125	
3-Nitroaniline	1.00	0.997	100	80 - 165	
Acenaphthene	1.00	0.896	90	65 - 130	
2,4-Dinitrophenol	5.00	4.66	93	53 - 168	
4-Nitrophenol	5.00	4.73	95	47 - 172	
Dibenzofuran	1.00	0.903	90	70 - 125	
2,4-Dinitrotoluene	1.00	1.00	100	57 - 122	
Diethyl phthalate	1.00	0.948	95	64 - 129	
4-Chlorophenyl phenyl ether	1.00	0.911	91	65 - 130	
Fluorene	1.00	0.907	91	68 - 128	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Lab Control Spike - Batch: 580-30000**

**Method: 8270C**  
**Preparation: 3550B**

Lab Sample ID: LCS 580-30000/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1504  
Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
Prep Batch: 580-30000  
Units: mg/Kg

Instrument ID: SEA002  
Lab File ID: AT09221.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4-Nitroaniline	1.00	1.09	109	70 - 150	
4,6-Dinitro-2-methylphenol	5.00	4.69	94	38 - 143	
N-Nitrosodiphenylamine	1.00	1.00	100	88 - 153	
4-Bromophenyl phenyl ether	1.00	0.911	91	64 - 134	
Hexachlorobenzene	1.00	0.861	86	61 - 136	
Pentachlorophenol	1.00	0.944	94	29 - 124	
Phenanthrene	1.00	0.880	88	65 - 125	
Anthracene	1.00	0.963	96	73 - 123	
Di-n-butyl phthalate	1.00	0.954	95	69 - 124	
Fluoranthene	1.00	0.943	94	61 - 121	
Pyrene	1.00	0.941	94	54 - 134	
Butyl benzyl phthalate	1.00	0.941	94	65 - 140	
3,3'-Dichlorobenzidine	2.00	2.07	103	73 - 163	
Benzo[a]anthracene	1.00	0.964	96	64 - 124	
Chrysene	1.00	0.858	86	71 - 126	
Bis(2-ethylhexyl) phthalate	1.00	0.862	86	64 - 144	
Di-n-octyl phthalate	1.00	0.974	97	58 - 148	
Benzo[fluoranthene]	2.00	1.88	94	57 - 137	
Benzo[a]pyrene	1.00	0.972	97	68 - 128	
Indeno[1,2,3-cd]pyrene	1.00	0.830	83	59 - 139	
Dibenz(a,h)anthracene	1.00	0.836	84	57 - 142	
Benzo[g,h,i]perylene	1.00	0.803	80	57 - 142	
Carbazole	1.00	1.03	103	88 - 158	
1-Methylnaphthalene	1.00	0.898	90	48 - 148	
Benzo[b]fluoranthene	1.00	0.986	99	66 - 136	
Benzo[k]fluoranthene	1.00	0.917	92	63 - 143	
2,2'-oxybis[1-chloropropane]	1.00	0.887	89	44 - 140	
Surrogate			% Rec	Acceptance Limits	
2-Fluorobiphenyl			86	42 - 140	
2,4,6-Tribromophenol			97	28 - 143	
Terphenyl-d14			96	42 - 151	
2-Fluorophenol			97	36 - 145	
Nitrobenzene-d5			85	38 - 141	
Phenol-d5			98	38 - 149	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-30000**

**Method: 8270C  
Preparation: 3550B**

MS Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1543  
Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
Prep Batch: 580-30000

Instrument ID: SEA002  
Lab File ID: AT09223.D  
Initial Weight/Volume: 10.8007 g  
Final Weight/Volume: 10 mL  
Injection Volume:

MSD Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1602  
Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
Prep Batch: 580-30000

Instrument ID: SEA002  
Lab File ID: AT09224.D  
Initial Weight/Volume: 10.8309 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Phenol	93	94	66 - 126	0	26		
Bis(2-chloroethyl)ether	87	77	57 - 122	12	60		
2-Chlorophenol	95	98	65 - 125	3	27		
1,3-Dichlorobenzene	89	92	64 - 124	2	60		
1,4-Dichlorobenzene	86	88	62 - 132	2	32		
Benzyl alcohol	94	93	42 - 147	1	60		
1,2-Dichlorobenzene	88	92	68 - 118	4	60		
2-Methylphenol	93	91	56 - 121	2	25		
3 & 4 Methylphenol	93	94	61 - 126	1	27		
N-Nitrosodi-n-propylamine	93	95	52 - 127	2	28		
Hexachloroethane	87	90	56 - 131	2	60		
Nitrobenzene	90	92	59 - 134	2	60		
Isophorone	90	95	53 - 118	5	60		
2-Nitrophenol	82	82	58 - 128	1	60		
2,4-Dimethylphenol	97	98	58 - 133	1	60		
Benzoic acid	9	11	10 - 130	NC	60	F	
Bis(2-chloroethoxy)methane	87	89	63 - 128	2	60		
2,4-Dichlorophenol	93	95	59 - 124	2	60		
1,2,4-Trichlorobenzene	86	91	63 - 128	6	28		
Naphthalene	87	90	64 - 129	3	26		
4-Chloroaniline	94	88	20 - 181	7	60		
Hexachlorobutadiene	85	89	59 - 134	4	60		
4-Chloro-3-methylphenol	93	92	58 - 128	1	27		
2-Methylnaphthalene	91	95	65 - 125	3	27		
Hexachlorocyclopentadiene	91	93	30 - 132	2	60		
2,4,6-Trichlorophenol	88	88	66 - 131	1	60		
2,4,5-Trichlorophenol	99	99	64 - 124	0	60		
2-Chloronaphthalene	87	89	69 - 129	2	25		
2-Nitroaniline	87	84	58 - 133	3	60		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-30000**

**Method: 8270C  
Preparation: 3550B**

MS Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1543  
Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
Prep Batch: 580-30000

Instrument ID: SEA002  
Lab File ID: AT09223.D  
Initial Weight/Volume: 10.8007 g  
Final Weight/Volume: 10 mL  
Injection Volume:

MSD Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1602  
Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
Prep Batch: 580-30000

Instrument ID: SEA002  
Lab File ID: AT09224.D  
Initial Weight/Volume: 10.8309 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Dimethyl phthalate	92	94	65 - 125	2	60		
Acenaphthylene	100	101	69 - 129	0	28		
2,6-Dinitrotoluene	91	91	65 - 125	0	60		
3-Nitroaniline	105	104	80 - 165	1	60		
Acenaphthene	88	90	65 - 130	2	27		
2,4-Dinitrophenol	40	37	53 - 168	7	60	F	F
4-Nitrophenol	80	78	47 - 172	2	33		
Dibenzofuran	89	91	70 - 125	2	60		
2,4-Dinitrotoluene	96	95	57 - 122	1	31		
Diethyl phthalate	91	94	64 - 129	4	26		
4-Chlorophenyl phenyl ether	90	92	65 - 130	2	60		
Fluorene	90	90	68 - 128	1	31		
4-Nitroaniline	121	116	70 - 150	4	60		
4,6-Dinitro-2-methylphenol	79	81	38 - 143	2	60		
N-Nitrosodiphenylamine	97	101	88 - 153	3	60		
4-Bromophenyl phenyl ether	90	93	64 - 134	3	60		
Hexachlorobenzene	84	87	61 - 136	3	60		
Pentachlorophenol	84	88	29 - 124	4	68		
Phenanthrene	86	88	65 - 125	2	28		
Anthracene	94	97	73 - 123	2	27		
Di-n-butyl phthalate	95	99	69 - 124	4	60		
Fluoranthene	91	97	61 - 121	6	36		
Pyrene	91	94	54 - 134	4	31		
Butyl benzyl phthalate	92	95	65 - 140	3	60		
3,3'-Dichlorobenzidine	110	105	73 - 163	5	60		
Benzo[a]anthracene	94	98	64 - 124	4	27		
Chrysene	84	88	71 - 126	4	26		
Bis(2-ethylhexyl) phthalate	85	93	64 - 144	NC	60		
Di-n-octyl phthalate	94	103	58 - 148	9	31		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-30000**

**Method: 8270C  
Preparation: 3550B**

MS Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1543  
Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
Prep Batch: 580-30000

Instrument ID: SEA002  
Lab File ID: AT09223.D  
Initial Weight/Volume: 10.8007 g  
Final Weight/Volume: 10 mL  
Injection Volume:

MSD Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/07/2008 1602  
Date Prepared: 04/07/2008 0855

Analysis Batch: 580-30052  
Prep Batch: 580-30000

Instrument ID: SEA002  
Lab File ID: AT09224.D  
Initial Weight/Volume: 10.8309 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzofluoranthene	92	93	57 - 137	1	31		
Benzo[a]pyrene	95	100	68 - 128	5	30		
Indeno[1,2,3-cd]pyrene	86	97	59 - 139	12	29		
Dibenz(a,h)anthracene	85	96	57 - 142	12	30		
Benzo[g,h,i]perylene	84	93	57 - 142	9	28		
Carbazole	99	104	88 - 158	5	60		
1-Methylnaphthalene	90	94	48 - 148	4	30		
Benzo[b]fluoranthene	92	91	66 - 136	1	31		
Benzo[k]fluoranthene	93	96	63 - 143	3	31		
2,2'-oxybis[1-chloropropane]	86	91	44 - 140	4	60		
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
2-Fluorobiphenyl	86		84		42 - 140		
2,4,6-Tribromophenol	96		96		28 - 143		
Terphenyl-d14	92		98		42 - 151		
2-Fluorophenol	97		100		36 - 145		
Nitrobenzene-d5	85		87		38 - 141		
Phenol-d5	99		98		38 - 149		

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

### Method Blank - Batch: 580-29857

**Method: NWTPH-Gx**  
**Preparation: 5035**

Lab Sample ID: MB 580-29857/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 1629  
Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29917  
Prep Batch: 580-29857  
Units: mg/Kg

Instrument ID: SEA041  
Lab File ID: Gx0012976.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 400 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
Gasoline	ND		4.0	4.0
Surrogate	% Rec		Acceptance Limits	
4-Bromofluorobenzene (Surr)	107		50 - 150	
Trifluorotoluene (Surr)	111		50 - 150	
Ethylbenzene-d10	109		50 - 150	
Fluorobenzene (Surr)	105		50 - 150	
Toluene-d8 (Surr)	112		50 - 150	

### Lab Control Spike - Batch: 580-29857

**Method: NWTPH-Gx**  
**Preparation: 5035**

Lab Sample ID: LCS 580-29857/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 1650  
Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29917  
Prep Batch: 580-29857  
Units: mg/Kg

Instrument ID: SEA041  
Lab File ID: Gx0012977.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 400 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Gasoline	44.0	42.3	96	68 - 120	
Surrogate	% Rec		Acceptance Limits		
4-Bromofluorobenzene (Surr)	109		50 - 150		
Trifluorotoluene (Surr)	115		50 - 150		
Ethylbenzene-d10	108		50 - 150		
Fluorobenzene (Surr)	113		50 - 150		
Toluene-d8 (Surr)	107		50 - 150		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-29857**

**Method: NWTPH-Gx  
Preparation: 5035**

MS Lab Sample ID: 580-9460-3  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 1755  
Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29917  
Prep Batch: 580-29857

Instrument ID: SEA041  
Lab File ID: Gx0012980.D  
Initial Weight/Volume: 11.14 g  
Final Weight/Volume: 402.5 mL  
Injection Volume:  
Column ID: PRIMARY

MSD Lab Sample ID: 580-9460-3  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 1817  
Date Prepared: 04/02/2008 0805

Analysis Batch: 580-29917  
Prep Batch: 580-29857

Instrument ID: SEA041  
Lab File ID: Gx0012981.D  
Initial Weight/Volume: 11.14 g  
Final Weight/Volume: 402.5 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Gasoline	106	104	50 - 150	3	35		
Surrogate		MS % Rec	MSD % Rec			Acceptance Limits	
4-Bromofluorobenzene (Surr)		110	110			50 - 150	
Trifluorotoluene (Surr)		99	98			50 - 150	
Ethylbenzene-d10		108	108			50 - 150	
Fluorobenzene (Surr)		114	114			50 - 150	
Toluene-d8 (Surr)		107	107			50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

# Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

## Method Blank - Batch: 580-29867

**Method: 8082**  
**Preparation: 3550B**

Lab Sample ID: MB 580-29867/1-A  
Client Matrix: Solid  
Dilution: 5.0  
Date Analyzed: 04/03/2008 2008  
Date Prepared: 04/02/2008 0927

Analysis Batch: 580-30005  
Prep Batch: 580-29867  
Units: mg/Kg

Instrument ID: SEA034  
Lab File ID: PCB15042.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 20 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
PCB-1016	ND		0.10	0.10
PCB-1221	ND		0.10	0.10
PCB-1232	ND		0.10	0.10
PCB-1242	ND		0.10	0.10
PCB-1248	ND		0.10	0.10
PCB-1254	ND		0.10	0.10
PCB-1260	ND		0.10	0.10

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	126	50 - 150
Tetrachloro-m-xylene	119	45 - 155

## Method Blank - Batch: 580-29867

**Method: 8082**  
**Preparation: 3550B**

Lab Sample ID: MB 580-29867/1-A  
Client Matrix: Solid  
Dilution: 5.0  
Date Analyzed: 04/04/2008 1020  
Date Prepared: 04/02/2008 0927

Analysis Batch: 580-30006  
Prep Batch: 580-29867  
Units: mg/Kg

Instrument ID: SEA034  
Lab File ID: PCB15078.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 20 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
PCB-1016	ND		0.10	0.10
PCB-1221	ND		0.10	0.10
PCB-1232	ND		0.10	0.10
PCB-1242	ND		0.10	0.10
PCB-1248	ND		0.10	0.10
PCB-1254	ND		0.10	0.10
PCB-1260	ND		0.10	0.10

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	141	50 - 150
Tetrachloro-m-xylene	116	45 - 155

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Lab Control Spike - Batch: 580-29867**

**Method: 8082**  
**Preparation: 3550B**

Lab Sample ID: LCS 580-29867/2-A  
Client Matrix: Solid  
Dilution: 5.0  
Date Analyzed: 04/03/2008 2031  
Date Prepared: 04/02/2008 0927

Analysis Batch: 580-30005  
Prep Batch: 580-29867  
Units: mg/Kg

Instrument ID: SEA034  
Lab File ID: PCB15043.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 20 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	1.00	1.16	116	57 - 128	
PCB-1260	1.00	1.37	137	65 - 132	*
Surrogate		% Rec		Acceptance Limits	
DCB Decachlorobiphenyl		138		50 - 150	
Tetrachloro-m-xylene		127		45 - 155	

**Lab Control Spike - Batch: 580-29867**

**Method: 8082**  
**Preparation: 3550B**

Lab Sample ID: LCS 580-29867/2-A  
Client Matrix: Solid  
Dilution: 5.0  
Date Analyzed: 04/04/2008 1044  
Date Prepared: 04/02/2008 0927

Analysis Batch: 580-30006  
Prep Batch: 580-29867  
Units: mg/Kg

Instrument ID: SEA034  
Lab File ID: PCB15079.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 20 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	1.00	1.16	116	57 - 128	
PCB-1260	1.00	1.46	146	65 - 132	*
Surrogate		% Rec		Acceptance Limits	
DCB Decachlorobiphenyl		156	X	50 - 150	
Tetrachloro-m-xylene		124		45 - 155	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-29867**

**Method: 8082  
Preparation: 3550B**

MS Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 5.0  
Date Analyzed: 04/03/2008 2119  
Date Prepared: 04/02/2008 0927

Analysis Batch: 580-30005  
Prep Batch: 580-29867

Instrument ID: SEA034  
Lab File ID: PCB15045.D  
Initial Weight/Volume: 10.8486 g  
Final Weight/Volume: 20 mL  
Injection Volume:  
Column ID: PRIMARY

MSD Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 5.0  
Date Analyzed: 04/03/2008 2142  
Date Prepared: 04/02/2008 0927

Analysis Batch: 580-30005  
Prep Batch: 580-29867

Instrument ID: SEA034  
Lab File ID: PCB15046.D  
Initial Weight/Volume: 10.6804 g  
Final Weight/Volume: 20 mL  
Injection Volume:  
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
PCB-1016	127	122	57 - 128	7	20		
PCB-1260	162	147	65 - 132	16	20	F	F
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
DCB Decachlorobiphenyl	168	X	149		50 - 150		
Tetrachloro-m-xylene	149		139		45 - 155		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Method Blank - Batch: 580-29872**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: MB 580-29872/1-B  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/11/2008 1547  
 Date Prepared: 04/02/2008 1033

Analysis Batch: 580-30236  
 Prep Batch: 580-29872  
 Units: mg/Kg

Instrument ID: SEA013  
 Lab File ID: FA34437.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Result	Qual	RL	RL
Motor Oil (>C24-C36)	ND		50	50
#2 Diesel (C10-C24)	ND		25	25
Surrogate	% Rec		Acceptance Limits	
o-Terphenyl	107		50 - 150	

**Lab Control Spike - Batch: 580-29872**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: LCS 580-29872/2-B  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 04/11/2008 1607  
 Date Prepared: 04/02/2008 1033

Analysis Batch: 580-30236  
 Prep Batch: 580-29872  
 Units: mg/Kg

Instrument ID: SEA013  
 Lab File ID: FA34438.D  
 Initial Weight/Volume: 10 g  
 Final Weight/Volume: 10 mL  
 Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Motor Oil (>C24-C36)	500	515	103	70 - 125	
#2 Diesel (C10-C24)	500	532	106	64 - 127	
Surrogate		% Rec		Acceptance Limits	
o-Terphenyl		122		50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Method Blank - Batch: 580-29984**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: MB 580-29984/1-B  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/09/2008 1119  
Date Prepared: 04/04/2008 1505

Analysis Batch: 580-30147  
Prep Batch: 580-29984  
Units: mg/Kg

Instrument ID: SEA016  
Lab File ID: EP23774.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Result	Qual	RL	RL
Motor Oil (>C24-C36)	ND		50	50
#2 Diesel (C10-C24)	ND		25	25
Surrogate	% Rec		Acceptance Limits	
o-Terphenyl	114		50 - 150	

**Lab Control Spike - Batch: 580-29984**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: LCS 580-29984/2-B  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/09/2008 1139  
Date Prepared: 04/04/2008 1505

Analysis Batch: 580-30147  
Prep Batch: 580-29984  
Units: mg/Kg

Instrument ID: SEA016  
Lab File ID: EP23775.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Motor Oil (>C24-C36)	500	578	116	70 - 125	
#2 Diesel (C10-C24)	500	614	123	64 - 127	
Surrogate		% Rec		Acceptance Limits	
o-Terphenyl		124		50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Method Blank - Batch: 580-30081**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: MB 580-30081/1-B  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/09/2008 1611  
Date Prepared: 04/08/2008 1452

Analysis Batch: 580-30147  
Prep Batch: 580-30081  
Units: mg/Kg

Instrument ID: SEA016  
Lab File ID: EP23787.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Result	Qual	RL	RL
Motor Oil (>C24-C36)	ND		50	50
#2 Diesel (C10-C24)	ND		25	25
Surrogate	% Rec		Acceptance Limits	
o-Terphenyl	103		50 - 150	

**Lab Control Spike - Batch: 580-30081**

**Method: NWTPH-Dx  
Preparation: 3550B**

Lab Sample ID: LCS 580-30081/2-B  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/09/2008 1632  
Date Prepared: 04/08/2008 1452

Analysis Batch: 580-30147  
Prep Batch: 580-30081  
Units: mg/Kg

Instrument ID: SEA016  
Lab File ID: EP23788.D  
Initial Weight/Volume: 10 g  
Final Weight/Volume: 10 mL  
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Motor Oil (>C24-C36)	500	566	113	70 - 125	
#2 Diesel (C10-C24)	500	546	109	64 - 127	
Surrogate		% Rec		Acceptance Limits	
o-Terphenyl		112		50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Method Blank - Batch: 580-29840**

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: MB 580-29840/23-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2008 1901  
Date Prepared: 04/01/2008 1104

Analysis Batch: 580-29862  
Prep Batch: 580-29840  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Arsenic	ND		3.0	3.0
Barium	ND		0.50	0.50
Cadmium	ND		0.50	0.50
Chromium	ND		1.3	1.3
Lead	ND		1.5	1.5
Selenium	ND		5.0	5.0
Silver	ND		1.0	1.0

**Lab Control Spike/  
Lab Control Spike Duplicate Recovery Report - Batch: 580-29840**

**Method: 6010B**  
**Preparation: 3050B**

LCS Lab Sample ID: LCS 580-29840/24-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2008 2054  
Date Prepared: 04/01/2008 1104

Analysis Batch: 580-29862  
Prep Batch: 580-29840  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 580-29840/25-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2008 2058  
Date Prepared: 04/01/2008 1104

Analysis Batch: 580-29862  
Prep Batch: 580-29840  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	86	86	80 - 120	0	35		
Barium	94	96	80 - 120	1	35		
Cadmium	91	93	80 - 120	2	35		
Chromium	91	92	80 - 120	1	35		
Lead	90	92	80 - 120	3	35		
Selenium	81	81	80 - 120	0	35		
Silver	93	94	80 - 120	1	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 580-29840**

**Method: 6010B  
Preparation: 3050B**

MS Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2008 1914  
Date Prepared: 04/01/2008 1104

Analysis Batch: 580-29862  
Prep Batch: 580-29840

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0260 g  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2008 1918  
Date Prepared: 04/01/2008 1104

Analysis Batch: 580-29862  
Prep Batch: 580-29840

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0316 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	84	84	75 - 125	1	35		
Barium	88	86	75 - 125	2	35		
Cadmium	82	80	75 - 125	4	35		
Chromium	86	83	75 - 125	2	35		
Lead	87	85	75 - 125	3	35		
Selenium	78	78	75 - 125	0	35		
Silver	91	88	75 - 125	4	35		

**Duplicate - Batch: 580-29840**

**Method: 6010B  
Preparation: 3050B**

Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2008 1912  
Date Prepared: 04/01/2008 1104

Analysis Batch: 580-29862  
Prep Batch: 580-29840  
Units: mg/Kg

Instrument ID: SEA027  
Lab File ID: N/A  
Initial Weight/Volume: 1.0086 g  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Arsenic	ND	1.83	NC	35	
Barium	6.3	7.17	14	35	
Cadmium	ND	-0.171	NC	35	
Chromium	10	9.26	11	35	
Lead	ND	0.981	NC	35	
Selenium	ND	-1.04	NC	35	
Silver	ND	-0.118	NC	35	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: GeoEngineers Inc

Job Number: 580-9460-1

### Method Blank - Batch: 580-29846

Lab Sample ID: MB 580-29846/23-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 0950  
Date Prepared: 04/02/2008 0820

Analysis Batch: 580-29881  
Prep Batch: 580-29846  
Units: mg/Kg

### Method: 7471A Preparation: 7471A

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Mercury	ND		0.010	0.010

### Duplicate - Batch: 580-29846

Lab Sample ID: 580-9460-2  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/02/2008 1003  
Date Prepared: 04/02/2008 0820

Analysis Batch: 580-29881  
Prep Batch: 580-29846  
Units: mg/Kg

### Method: 7471A Preparation: 7471A

Instrument ID: SEA029  
Lab File ID: N/A  
Initial Weight/Volume: 0.5736 g  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	ND	0.00249	NC	35	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## DATA REPORTING QUALIFIERS

Client: GeoEngineers Inc

Job Number: 580-9460-1

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
GC/MS VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	F	MS or MSD exceeds the control limits
GC Semi VOA		
	*	LCS or LCSD exceeds the control limits
	F	MS or MSD exceeds the control limits
	X	Surrogate exceeds the control limits

9460

Client: GeoEngineers Project Manager: Kevin Brown Date: 3/27/08 Chain of Custody Number: 00524  
 Address: 1101 S. Fawcett St STE 200 Telephone Number (Area Code)/Fax Number: 253.383.4940 Lab Number: 1 of 1  
 City: Tacoma WA State: WA Zip Code: 98402 Site Contact: 253.383.4940 Lab Contact: 253.383.4940  
 Project Name and Location (State): Tacoma WA Carrier/Manifest Number: 0415-049-02  
 City of Olympia  
 Contract/Purchase Order/Quote No. \_\_\_\_\_

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH			
1. MW8-032708-3	3/27/08	0825				X								X	* Dx w/ Silica
2. MW8-032708-6		0830												X	Bel Cleanup
3. MW8-032708-9		0835												X	
4. MW7-032708-3		1000												X	
5. MW7-032708-7		1010												X	
6. MW7-032708-10		1020												X	
7. MW6-032708-3		1120												X	
8. MW6-032708-7		1125												X	
9. MW6-032708-9		1130												X	
10. MW9-032708-3		1358												X	
11. MW9-032708-7		1402												X	
12. MW9-032708-10		1408												X	

Sample Disposal:  Disposal By Lab  Return To Client  Archive For \_\_\_\_\_ Months  
 Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Hold

QC Requirements (Specify): Cooler IP # STL T4H = 4.3°C  
 Turn Around Time Required (business days): 10 Days  5 Days  15 Days  Other \_\_\_\_\_  
 1. Relinquished By: M.C. Davis Date: 3/27/08 Time: 1750  
 2. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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

# Login Sample Receipt Check List

Client: GeoEngineers Inc

Job Number: 580-9460-1

**Login Number: 9460**  
**Creator: Urness, Richard**  
**List Number: 1**

**List Source: TestAmerica Tacoma**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

November 17, 2008

Nick Rohrback  
GeoEngineers, Inc.  
1101 Fawcett Ave., Suite 200  
Tacoma, WA 98402

Dear Mr. Rohrback:

Please find enclosed the analytical data report for the City of Olympia – WSDOT Project in Olympia, Washington. Probe and Auger services were conducted on October 30 & 31, 2008. Soil and water samples were analyzed for VOC's by Method 8260, Semi-VOC's by Method 8270, PAH SIMS by Method 8270, Total Pb, As, & Hg by Method 6020, and Dissolved Pb & As by Method 6020 on October 30 – November 12, 200i.

The results of these analyses are summarized in the attached table. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this analytical work has been sent to your Redmond office.

ESN Northwest appreciates the opportunity to have provided analytical services to GeoEngineers for this project. It was a pleasure working with you, and we are looking forward to the next opportunity to work together.

Sincerely,



Michael A. Korosec  
*President*

**ESN Northwest, Inc.**  
 1210 Eastside Street SE, Suite 200  
 Olympia, WA 98501

# Invoice

<b>Invoice #</b>
8103006

<b>Date</b>
11/12/2008

<b>Bill To</b>
GeoEngineers, Inc. 8410 154th Ave. NE Redmond, WA 98052

<b>Purchase/Work Order #</b>
0415-049-02

<b>ATTN:</b>	Accounts Payable
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<b>Project</b>
City of Olympia-WSDOT  Olympia, WA

Date	Quantity	Description	Unit Cost	Amount
		PM: Nick Rohrback		
10/30/2008	2	Probe/Auger Services	1,750.00	3,500.00
10/31/2008	1	3rd Operator - partial day	100.00	100.00
	7	Start Card - wells	60.00	420.00
	7	Well Material	395.00	2,765.00
	12	55 Gallon Drum	75.00	900.00
	124	Liner/ft	1.00	124.00
	3	Concrete Cores	30.00	90.00
	1	Concrete Coring Services	585.00	585.00
10/30/2008	41	8260 - soil & water 5 day tat	90.00	3,690.00
11/12/2008	41	8270 - soil & water 5 day tat	190.00	7,790.00
	41	PAH SIMS by 8270 - soil & water 5 day tat	120.00	4,920.00
	21	Pb & As - soil & water 5 day tat	45.00	945.00
	21	Dissolved Pb & As - water 5 day tat	55.00	1,155.00
	20	Pb, As & Hg - soil & water 5 day tat	75.00	1,500.00

**Phone #:** 360-459-4670  
**Fax #:** 360-459-3432

**Tax ID #91-1510006**

**Total Amount Due**

<b>\$28,484.00</b>
--------------------

**Terms**

Net 30 Days
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# CHAIN-OF-CUSTODY RECORD

DATE: 10/30/08 PAGE 2 OF 2  
 PROJECT NAME: City of Olympia - WSDOT  
 LOCATION: 318 State Ave N Olympia, WA  
 COLLECTOR: JDM/MS

CLIENT: Geo Engineers  
 ADDRESS: 1101 S Fawcett Street Tacoma, WA 98402  
 PHONE: 253 383 4940 FAX: Nick Rahrback  
 CLIENT PROJECT #: 0415-046-02 PROJECT MANAGER:

DATE OF COLLECTION: 10/30/08

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES										Total Number of Containers	Laboratory Note Number								
					TRI-ACID	VOA 8021B BTEX	TPH-Gasoline	TPH-Diesel	Semivol 8210C	PCBs 8082	PCBs 8210C-504	CG Particles 8082	MCA 5 Metals	Pb			Asbestos-PLM	DRO suite	WO suite	MSM D.T. (M)	MSM D.T. (W)			
101-103008-W		1100	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7		
202-103008-W		1245	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7		
303-103008-W		1430	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7		
404-103008-W		1610	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7		
5.																								
6.																								
7.																								
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17.																								
18.																								

LABORATORY NOTES:

RECEIVED BY (Signature) DATE/TIME: 10/30/08 17:00

RECEIVED BY (Signature) DATE/TIME: 10/30/08 17:00

SAMPLE DISPOSAL INSTRUCTIONS

ESN DISPOSAL @ \$2.00 each  Return  Pickup

Turn Around Time: 24 HR 48 HR 5 DAY

# CHAIN-OF-CUSTODY RECORD

CLIENT: Geo Engineers DATE: 10/31/08 PAGE 1 OF 1  
 ADDRESS: 1101 S. FAUCETT STREET Tacoma WA 98402 PROJECT NAME: CITY OF OLYMPIA WSDOT  
 PHONE: 253-383-4440 FAX: 253-383-4440 LOCATION: \_\_\_\_\_  
 CLIENT PROJECT #: 0415-049-02 PROJECT MANAGER: Bill Potholuck DATE OF COLLECTION: 10/31/08  
 COLLECTOR: SD

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES	TPH-Acid BTEX	TPH-Gasoline	TPH-Diesel & Oil	Semivol 8770 (C)	PCBs 8270 (C)	CI Pesticides 8081-8270	MICAs & Metals	Pb	Asbestos-PLM	DRO Suite	WO Suite	NOTES	Total Number of Containers	Laboratory Note Number
*1- 10W10-103108-3	-	0825	S		X	X	X	X	X	X	X	X	X	X	X	X	X	4	
*2- 10W10-103108-7	-	0835			X	X	X	X	X	X	X	X	X	X	X	X	X		
*3- 10W10-103108-10	-	0845			X	X	X	X	X	X	X	X	X	X	X	X	X		
*4- 10W12-103108-4.5	-	1035			X	X	X	X	X	X	X	X	X	X	X	X	X		
*5- 10W12-103108-8	-	1045			X	X	X	X	X	X	X	X	X	X	X	X	X		
*6- 10W12-103108-10	-	1055			X	X	X	X	X	X	X	X	X	X	X	X	X		
*7- 10W16-103108-5	-	1225			X	X	X	X	X	X	X	X	X	X	X	X	X		
*8- 10W16-103108-10	-	1235			X	X	X	X	X	X	X	X	X	X	X	X	X		
*9- 10W16-103108-11	-	1245			X	X	X	X	X	X	X	X	X	X	X	X	X		
*10- 10W15-103108-3	-	1340			X	X	X	X	X	X	X	X	X	X	X	X	X		
*11- 10W15-103108-5	-	1345			X	X	X	X	X	X	X	X	X	X	X	X	X		
*12- 10W15-103108-9	-	1350			X	X	X	X	X	X	X	X	X	X	X	X	X		
*13- 10W14-103108-4	-	1445			X	X	X	X	X	X	X	X	X	X	X	X	X		
*14- 10W14-103108-8	-	1455			X	X	X	X	X	X	X	X	X	X	X	X	X		
15.																			
16.																			
17.																			
18.																			

RELINQUISHED BY (Signature) \_\_\_\_\_ DATE/TIME \_\_\_\_\_ RECEIVED BY (Signature) \_\_\_\_\_ DATE/TIME \_\_\_\_\_  
 RELINQUISHED BY (Signature) \_\_\_\_\_ DATE/TIME \_\_\_\_\_ RECEIVED BY (Signature) \_\_\_\_\_ DATE/TIME \_\_\_\_\_  
 TOTAL NUMBER OF CONTAINERS: \_\_\_\_\_  
 CHAIN OF CUSTODY SEALS Y/N/NA: \_\_\_\_\_  
 SEALS INTACT? Y/N/NA: \_\_\_\_\_  
 RECEIVED GOOD COND./COLD: \_\_\_\_\_  
 NOTES: \_\_\_\_\_  
 LABORATORY NOTES: \_\_\_\_\_  
 Turn Around Time: 24 HR 48 HR 5 DAY

# CHAIN-OF-CUSTODY RECORD

**CLIENT:** GeoEngineers  
**ADDRESS:** 1101 S. Garcott Ave Ste 200  
**PHONE:** 253 383 4940  
**FAX:** \_\_\_\_\_  
**CLIENT PROJECT #:** 0415-049-02  
**PROJECT MANAGER:** Mrs. Rohrbach  
**DATE:** 10-31-08 **PAGE:** 1 **OF:** 1  
**PROJECT NAME:** City of Olympia WSDOT  
**LOCATION:** 318 Site Ave Olympia WA.  
**COLLECTOR:** JEA / JES **DATE OF COLLECTION:** 10-31-08

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES										Notes	Total Number of Containers	Laboratory Note Number						
					TPH-HCD BTEX	VOC 80218 BTEX	TPH-Gasoline	TPH-Diesel	TPH-Diesel & Oil	PAHs 8270c	PCBs 8082	PCBs 8270c - 518	CL Particles 8081	MTC 8 Metals	Pb	Asbestos-PLM	GRO Suite	DRO Suite	MO Suite	MS PB ZETA	MS PB DISSE (UP)		
1. MW15-103108-W		0910	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	
2. MW16-103108-W		1015	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	
3. MW17-103108-W		1130	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	
4. MW18-103108-W		1300	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	
5. MW19-103108-W		1445	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	
6.																							
7.																							
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17.																							
18.																							

**RELINQUISHED BY (Signature)** \_\_\_\_\_ **DATE/TIME** 10/31/08 16:00  
**RECEIVED BY (Signature)** \_\_\_\_\_ **DATE/TIME** 10/31/08 16:00  
**RECEIVED BY (Signature)** \_\_\_\_\_ **DATE/TIME** \_\_\_\_\_

**LABORATORY NOTES:**  
 TOTAL NUMBER OF CONTAINERS \_\_\_\_\_  
 CHAIN OF CUSTODY SEALS Y/N/A \_\_\_\_\_  
 SEALS INTACT? Y/N/A \_\_\_\_\_  
 RECEIVED GOOD COND./COLD \_\_\_\_\_  
 NOTES: \_\_\_\_\_

Turn Around Time: 24 HR  48 HR  5 DAY

**SAMPLE DISPOSAL INSTRUCTIONS**

ESN DISPOSAL @ \$2.00 each  Return  Pickup



Environmental Services Network

Olympia: (360) 459-4670  
Bellevue: (360) 957-9872

# CHAIN-OF-CUSTODY RECORD

CLIENT: Geotek Services PAGE 1 OF 1

ADDRESS: 1101 S. Fawcett Ave

PHONE: 253 383 4940 FAX: \_\_\_\_\_

PROJECT NAME: City of Olympia WSDOT

LOCATION: 318 State Ave Olympia WA

COLLECTOR: Mes DATE OF COLLECTION: 11-4-08

CLIENT PROJECT #: D415-049-02 PROJECT MANAGER: Nick Kobach

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES										Total Number of Containers	Laboratory Note Number								
					VIA 80718 BTEX	VIA 80718 BTEX	TPH-Gasoline	TPH-Diesel & Oil	TPH-Diesel	Semivol 8270	PCBs 8082	PCBs 8270	PAHs 8270	CL Pesticides 8081			MCA 5 Metals	PCRA 8 Metals	Asbestos-PLM	DRO Suite	MO Suite	VIA 80718 BTEX	VIA 80718 BTEX	
1. AAAD-110408-W		1350	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	
2. AAAL1-110408-W		1830	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	
3. AAAL2-110408-W		1100	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	
4. AAAL3-110408-W		0916	W		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	
5.																								
6.																								
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SAMPLE DISPOSAL INSTRUCTIONS

ESN DISPOSAL @ \$2.00 each  Return  Pickup

LABORATORY NOTES:

TURN AROUND TIME: 24 HR 48 HR 5 DAY

# CHAIN-OF-CUSTODY RECORD

CLIENT: Geoengineers DATE: 11-6-08 PAGE 1 OF 1

ADDRESS: 1101 S Faircliff Ave Tacoma PROJECT NAME: City of Olympia WSDOT

PHONE: 253 383 4940 FAX: \_\_\_\_\_ LOCATION: 318 State Ave Olympia WA

CLIENT PROJECT #: 0415-049-02 PROJECT MANAGER: Nick Rohrbach COLLECTOR: MES DATE OF COLLECTION: 11-6-08

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES											Notes	Total Number	Laboratory Note Number		
					TPH-Acid BTEX	TPH-Gasoline	TPH-Diesel & Oil	TPH-Diesel	SemVol 8270C	PCBs 8270C-SM	CGPesticides 8082	MTCAs & Metals	Pb	Asbestos-PLM	DRO Sulfide	WO Sulfide	MS for TPH	MS for Lead		
1	MW14-110608-W	12:00	W		X	X	X	X	X						X	X			7	
2	MW15-110608-W	10:40	W		X	X	X	X	X						X	X			7	
3	MW16-110608-W	09:25	W		X	X	X	X	X						X	X			7	
4	Dupe 1-110608-W	16:00	W		X	X	X	X	X						X	X			7	
5	Dupe 2-110608-W	16:30	W		X	X	X	X	X						X	X			7	
6.																				
7.																				
8.																				
9.																				
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RELINQUISHED BY (Signature) [Signature] DATE/TIME 11-6-08/13:36 RECEIVED BY (Signature) [Signature] DATE/TIME 11-6-08

**SAMPLE DISPOSAL INSTRUCTIONS**

ESN DISPOSAL @ \$2.00 each  Return  Pickup

TOTAL NUMBER OF CONTAINERS: \_\_\_\_\_

CHAIN OF CUSTODY SEALS Y/NNA: \_\_\_\_\_

SEALS INTACT? Y/NNA: \_\_\_\_\_

RECEIVED GOOD COND./COLD: \_\_\_\_\_

NOTES: \_\_\_\_\_

LABORATORY NOTES: \_\_\_\_\_

Turn Around Time: 24 HR 48 HR 5 DAY

# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
 CITY OF OLYMPIA - WSDOT PROJECT  
 Client Project #0415-049-02  
 Olympia, Washington

ESN Northwest  
 1210 Eastside Street SE Suite 200  
 Olympia, WA 98501  
 (360) 459-4670 (360) 459-3432 Fax  
 lab@esnnw.com

## Analytical Results

8260, µg/kg (Soil)	MTH BLK	LCS	PP20-103008-3	PP20-103008-9	PP19-103008-3	PP19-103008-6	
Date extracted	Reporting	10/31/08	10/31/08	10/31/08	10/31/08	10/31/08	
Date analyzed	Limits	11/07/08					
Dichlorodifluoromethane	50	nd	nd	nd	nd	nd	
Chloromethane	50	nd	nd	nd	nd	nd	
Vinyl chloride	50	nd	nd	nd	nd	nd	
Bromomethane	50	nd	nd	nd	nd	nd	
Chloroethane	50	nd	nd	nd	nd	nd	
Trichlorofluoromethane	50	nd	nd	nd	nd	nd	
1,1-Dichloroethene	50	nd	94%	nd	nd	nd	
Methylene chloride	20	nd	nd	nd	nd	nd	
trans-1,2-Dichloroethene	50	nd	nd	nd	nd	nd	
1,1-Dichloroethane	50	nd	nd	nd	nd	nd	
cis-1,2-Dichloroethene	50	nd	nd	nd	nd	nd	
2,2-Dichloropropane	50	nd	nd	nd	nd	nd	
Chloroform	50	nd	nd	nd	nd	nd	
Bromochloromethane	50	nd	nd	nd	nd	nd	
1,1,1-Trichloroethane	50	nd	nd	nd	nd	nd	
1,2-Dichloroethane (EDC)	50	nd	nd	nd	nd	nd	
1,1-Dichloropropene	50	nd	nd	nd	nd	nd	
Carbon tetrachloride	50	nd	nd	nd	nd	nd	
Benzene	20	nd	76%	nd	nd	nd	
Trichloroethene	20	nd	80%	nd	nd	nd	
1,2-Dichloropropane	50	nd	nd	nd	nd	nd	
Dibromomethane	50	nd	nd	nd	nd	nd	
Bromodichloromethane	50	nd	nd	nd	nd	nd	
cis-1,3-Dichloropropene	50	nd	nd	nd	nd	nd	
Toluene	50	nd	108%	nd	nd	nd	
trans-1,3-Dichloropropene	50	nd	nd	nd	nd	nd	
1,1,2-Trichloroethane	50	nd	nd	nd	nd	nd	
1,3-Dichloropropane	50	nd	nd	nd	nd	nd	
Dibromochloromethane	50	nd	nd	nd	nd	nd	
Tetrachloroethene	20	nd	nd	nd	nd	nd	
1,2-Dibromoethane (EDB)	50	nd	nd	nd	nd	nd	
Chlorobenzene	50	nd	128%	nd	nd	nd	
1,1,1,2-Tetrachloroethane	50	nd	nd	nd	nd	nd	
Ethylbenzene	50	nd	nd	nd	nd	nd	
Xylenes	150	nd	nd	nd	nd	nd	
Styrene	50	nd	nd	nd	nd	nd	
Bromoform	50	nd	nd	nd	nd	nd	
1,1,2,2-Tetrachloroethane	50	nd	nd	nd	nd	nd	
Isopropylbenzene	50	nd	nd	nd	nd	nd	
1,2,3-Trichloropropane	50	nd	nd	nd	nd	nd	
Bromobenzene	50	nd	nd	nd	nd	nd	
n-Propylbenzene	50	nd	nd	nd	nd	nd	
2-Chlorotoluene	50	nd	nd	nd	nd	nd	
4-Chlorotoluene	50	nd	nd	nd	nd	nd	
1,3,5-Trimethylbenzene	50	nd	nd	nd	nd	nd	
tert-Butylbenzene	50	nd	nd	nd	nd	nd	
1,2,4-Trimethylbenzene	50	nd	nd	nd	nd	nd	
sec-Butylbenzene	50	nd	nd	nd	nd	nd	
1,3-Dichlorobenzene	50	nd	nd	nd	nd	nd	
1,4-Dichlorobenzene	50	nd	nd	nd	nd	nd	
Isopropyltoluene	50	nd	nd	nd	nd	nd	
1,2-Dichlorobenzene	50	nd	nd	nd	nd	nd	
n-Butylbenzene	50	nd	nd	nd	nd	nd	
1,2-Dibromo-3-Chloropropane	50	nd	nd	nd	nd	nd	
1,2,4-Trichlorobenzene	100	nd	nd	nd	nd	nd	
Naphthalene	100	nd	nd	nd	nd	nd	
Hexachloro-1,3-butadiene	100	nd	nd	nd	nd	nd	
1,2,3-Trichlorobenzene	100	nd	nd	nd	nd	nd	
Surrogate recoveries							
Dibromofluoromethane		104%	118%	111%	108%	109%	106%
Toluene-d8		85%	89%	83%	86%	82%	83%
4-Bromofluorobenzene		100%	104%	103%	96%	98%	100%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
 CITY OF OLYMPIA - WSDOT PROJECT  
 Client Project #0415-049-02  
 Olympia, Washington

ESN Northwest  
 1210 Eastside Street SE Suite 200  
 Olympia, WA 98501  
 (360) 459-4670 (360) 459-3432 Fax  
 lab@esnnw.com

## Analytical Results

8260, µg/kg (Soil)	PP18-103008-3	PP18-103008-10	MW13-103008-3	MW13-103008-8	MW11-103008-3	MW11-103008-8
Date extracted	Reporting	10/31/08	10/31/08	10/31/08	10/31/08	10/31/08
Date analyzed	Limits					
Dichlorodifluoromethane	50	nd	nd	nd	nd	nd
Chloromethane	50	nd	nd	nd	nd	nd
Vinyl chloride	50	nd	nd	nd	nd	nd
Bromomethane	50	nd	nd	nd	nd	nd
Chloroethane	50	nd	nd	nd	nd	nd
Trichlorofluoromethane	50	nd	nd	nd	nd	nd
1,1-Dichloroethene	50	nd	nd	nd	nd	nd
Methylene chloride	20	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	50	nd	nd	nd	nd	nd
1,1-Dichloroethane	50	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	50	nd	nd	nd	nd	nd
2,2-Dichloropropane	50	nd	nd	nd	nd	nd
Chloroform	50	nd	nd	nd	nd	nd
Bromochloromethane	50	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	50	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	50	nd	nd	nd	nd	nd
1,1-Dichloropropene	50	nd	nd	nd	nd	nd
Carbon tetrachloride	50	nd	nd	nd	nd	nd
Benzene	20	nd	nd	nd	nd	nd
Trichloroethene	20	nd	nd	nd	nd	nd
1,2-Dichloropropane	50	nd	nd	nd	nd	nd
Dibromomethane	50	nd	nd	nd	nd	nd
Bromodichloromethane	50	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	50	nd	nd	nd	nd	nd
Toluene	50	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	50	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	50	nd	nd	nd	nd	nd
1,3-Dichloropropane	50	nd	nd	nd	nd	nd
Dibromochloromethane	50	nd	nd	nd	nd	nd
Tetrachloroethene	20	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	50	nd	nd	nd	nd	nd
Chlorobenzene	50	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	50	nd	nd	nd	nd	nd
Ethylbenzene	50	nd	nd	nd	nd	nd
Xylenes	150	nd	nd	nd	nd	nd
Styrene	50	nd	nd	nd	nd	nd
Bromoform	50	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd	nd	nd	nd	nd
Isopropylbenzene	50	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	50	nd	nd	nd	nd	nd
Bromobenzene	50	nd	nd	nd	nd	nd
n-Propylbenzene	50	nd	nd	nd	nd	nd
2-Chlorotoluene	50	nd	nd	nd	nd	nd
4-Chlorotoluene	50	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	50	nd	nd	nd	nd	nd
tert-Butylbenzene	50	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	50	nd	nd	nd	nd	nd
sec-Butylbenzene	50	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	50	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	50	nd	nd	nd	nd	nd
Isopropyltoluene	50	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	50	nd	nd	nd	nd	nd
n-Butylbenzene	50	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	50	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	100	nd	nd	nd	nd	nd
Naphthalene	100	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	100	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	100	nd	nd	nd	nd	nd

Surrogate recoveries						
Dibromofluoromethane	107%	111%	106%	111%	112%	103%
Toluene-d8	85%	86%	86%	86%	85%	86%
4-Bromofluorobenzene	101%	108%	109%	104%	100%	108%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%



**ESN NORTHWEST CHEMISTRY LABORATORY**

GeoEngineers  
 CITY OF OLYMPIA - WSDOT PROJECT  
 Client Project #0415-049-02  
 Olympia, Washington

ESN Northwest  
 1210 Eastside Street SE Suite 200  
 Olympia, WA 98501  
 (360) 459-4670 (360) 459-3432 Fax  
 lab@esnnw.com

**Analytical Results**

8260, µg/kg (Soil)	PP20-103008-3 MS	PP20-103008-3 MSD	RPD
Date extracted	Reporting	10/31/08	10/31/08
Date analyzed	Limits		
Dichlorodifluoromethane	50		
Chloromethane	50		
Vinyl chloride	50		
Bromomethane	50		
Chloroethane	50		
Trichlorofluoromethane	50		
1,1-Dichloroethene	50	74%	69% 7.0%
Methylene chloride	20		
trans-1,2-Dichloroethene	50		
1,1-Dichloroethane	50		
cis-1,2-Dichloroethene	50		
2,2-Dichloropropane	50		
Chloroform	50		
Bromochloromethane	50		
1,1,1-Trichloroethane	50		
1,2-Dichloroethane (EDC)	50		
1,1-Dichloropropene	50		
Carbon tetrachloride	50		
Benzene	20	69%	68% 1.5%
Trichloroethene	20	76%	74% 2.7%
1,2-Dichloropropane	50		
Dibromomethane	50		
Bromodichloromethane	50		
cis-1,3-Dichloropropene	50		
Toluene	50	100%	97% 3.0%
trans-1,3-Dichloropropene	50		
1,1,2-Trichloroethane	50		
1,3-Dichloropropane	50		
Dibromochloromethane	50		
Tetrachloroethene	20		
1,2-Dibromoethane (EDB)	50		
Chlorobenzene	50	112%	109% 2.7%
1,1,1,2-Tetrachloroethane	50		
Ethylbenzene	50		
Xylenes	150		
Styrene	50		
Bromoform	50		
1,1,2,2-Tetrachloroethane	50		
Isopropylbenzene	50		
1,2,3-Trichloropropane	50		
Bromobenzene	50		
n-Propylbenzene	50		
2-Chlorotoluene	50		
4-Chlorotoluene	50		
1,3,5-Trimethylbenzene	50		
tert-Butylbenzene	50		
1,2,4-Trimethylbenzene	50		
sec-Butylbenzene	50		
1,3-Dichlorobenzene	50		
1,4-Dichlorobenzene	50		
Isopropyltoluene	50		
1,2-Dichlorobenzene	50		
n-Butylbenzene	50		
1,2-Dibromo-3-Chloropropane	50		
1,2,4-Trichlorobenzene	100		
Naphthalene	100		
Hexachloro-1,3-butadiene	100		
1,2,3-Trichlorobenzene	100		
<b>Surrogate recoveries</b>			
Dibromofluoromethane		118%	118% 118%
Toluene-d8		89%	89% 89%
4-Bromofluorobenzene		104%	104% 104%

**Data Qualifiers and Analytical Comments**

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
 CITY OF OLYMPIA WSDOT PROJECT  
 Client Project #0415-049-02  
 Olympia, Washington

ESN Northwest  
 1210 Eastside Street SE Suite 200  
 Olympia, WA 98501  
 (360) 459-4670 (360) 459-3432  
 lab@esnsw.com

## Analytical Results

8260, µg/kg (Soil)	MTH BLK	LCS	MW10-103108-3	MW10-103108-7	MW12-103108-4.5	MW12-103108-8
Date extracted	Reporting	11/02/08	11/02/08	11/02/08	11/02/08	11/02/08
Date analyzed	Limits	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08
Dichlorodifluoromethane	50	nd		nd	nd	nd
Chloromethane	50	nd		nd	nd	nd
Vinyl chloride	50	nd		nd	nd	nd
Bromomethane	50	nd		nd	nd	nd
Chloroethane	50	nd		nd	nd	nd
Trichlorofluoromethane	50	nd		nd	nd	nd
1,1-Dichloroethene	50	nd	98%	nd	nd	nd
Methylene chloride	20	nd		nd	nd	nd
trans-1,2-Dichloroethene	50	nd		nd	nd	nd
1,1-Dichloroethane	50	nd		nd	nd	nd
cis-1,2-Dichloroethene	50	nd		nd	nd	nd
2,2-Dichloropropane	50	nd		nd	nd	nd
Chloroform	50	nd		nd	nd	nd
Bromochloromethane	50	nd		nd	nd	nd
1,1,1-Trichloroethane	50	nd		nd	nd	nd
1,2-Dichloroethane (EDC)	50	nd		nd	nd	nd
1,1-Dichloropropene	50	nd		nd	nd	nd
Carbon tetrachloride	50	nd		nd	nd	nd
Benzene	20	nd	83%	nd	nd	nd
Trichloroethene	20	nd	96%	nd	nd	nd
1,2-Dichloropropane	50	nd		nd	nd	nd
Dibromomethane	50	nd		nd	nd	nd
Bromodichloromethane	50	nd		nd	nd	nd
cis-1,3-Dichloropropene	50	nd		nd	nd	nd
Toluene	50	nd	131%	nd	nd	nd
trans-1,3-Dichloropropene	50	nd		nd	nd	nd
1,1,2-Trichloroethane	50	nd		nd	nd	nd
1,3-Dichloropropane	50	nd		nd	nd	nd
Dibromochloromethane	50	nd		nd	nd	nd
Tetrachloroethene	20	nd		nd	nd	nd
1,2-Dibromoethane (EDB)	50	nd		nd	nd	nd
Chlorobenzene	50	nd	134%	nd	nd	nd
1,1,1,2-Tetrachloroethane	50	nd		nd	nd	nd
Ethylbenzene	50	nd		nd	72	nd
Xylenes	150	nd		150	250	210
Styrene	50	nd		nd	nd	nd
Bromoform	50	nd		nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd		nd	nd	nd
Isopropylbenzene	50	nd		nd	71	nd
1,2,3-Trichloropropane	50	nd		nd	nd	nd
Bromobenzene	50	nd		nd	nd	nd
n-Propylbenzene	50	nd		nd	75	63
2-Chlorotoluene	50	nd		nd	nd	nd
4-Chlorotoluene	50	nd		nd	nd	nd
1,3,5-Trimethylbenzene	50	nd		nd	81	62
tert-Butylbenzene	50	nd		nd	nd	nd
1,2,4-Trimethylbenzene	50	nd		53	110	66
sec-Butylbenzene	50	nd		nd	71	nd
1,3-Dichlorobenzene	50	nd		nd	nd	nd
1,4-Dichlorobenzene	50	nd		nd	nd	nd
Isopropyltoluene	50	nd		nd	nd	nd
1,2-Dichlorobenzene	50	nd		nd	nd	nd
n-Butylbenzene	50	nd		nd	74	nd
1,2-Dibromo-3-Chloropropane	50	nd		nd	nd	nd
1,2,4-Trichlorobenzene	100	nd		nd	nd	nd
Naphthalene	100	nd		nd	nd	120
Hexachloro-1,3-butadiene	100	nd		nd	nd	nd
1,2,3-Trichlorobenzene	100	nd		nd	120	nd
Surrogate recoveries						
Dibromofluoromethane		96%	95%	102%	100%	103%
Toluene-d8		78%	78%	74%	74%	77%
4-Bromofluorobenzene		97%	99%	96%	97%	103%

Data Qualifiers and Analytical Comments  
 nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
 CITY OF OLYMPIA WSDOT PROJECT  
 Client Project #0415-049-02  
 Olympia, Washington

## Analytical Results

8260, µg/kg (Soil)	MW16-103108-5	MW16-103108-10	MW15-103108-3	MW15-103108-5	MW14-103108-4	MW14-103108-8
Date extracted	Reporting	11/02/08	11/02/08	11/02/08	11/02/08	11/02/08
Date analyzed	Limits	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08
Dichlorodifluoromethane	50	nd	nd	nd	nd	nd
Chloromethane	50	nd	nd	nd	nd	nd
Vinyl chloride	50	nd	nd	nd	nd	nd
Bromomethane	50	nd	nd	nd	nd	nd
Chloroethane	50	nd	nd	nd	nd	nd
Trichlorofluoromethane	50	nd	nd	nd	nd	nd
1,1-Dichloroethene	50	nd	nd	nd	nd	nd
Methylene chloride	20	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	50	nd	nd	nd	nd	nd
1,1-Dichloroethane	50	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	50	nd	nd	nd	nd	nd
2,2-Dichloropropane	50	nd	nd	nd	nd	nd
Chloroform	50	nd	nd	nd	nd	nd
Bromochloromethane	50	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	50	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	50	nd	nd	nd	nd	nd
1,1-Dichloropropene	50	nd	nd	nd	nd	nd
Carbon tetrachloride	50	nd	nd	nd	nd	nd
Benzene	20	nd	nd	160	nd	nd
Trichloroethene	20	nd	nd	nd	nd	nd
1,2-Dichloropropane	50	nd	nd	nd	nd	nd
Dibromomethane	50	nd	nd	nd	nd	nd
Bromodichloromethane	50	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	50	nd	nd	nd	nd	nd
Toluene	50	170	72	700	nd	nd
trans-1,3-Dichloropropene	50	nd	nd	nd	nd	82
1,1,2-Trichloroethane	50	nd	nd	nd	nd	nd
1,3-Dichloropropane	50	nd	nd	nd	nd	nd
Dibromochloromethane	50	nd	nd	nd	nd	nd
Tetrachloroethene	20	230	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	50	nd	nd	nd	nd	nd
Chlorobenzene	50	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	50	nd	nd	nd	nd	nd
Ethylbenzene	50	77	75	120	nd	nd
Xylenes	150	310	280	650	170	260
Styrene	50	nd	nd	nd	nd	nd
Bromoform	50	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	50	nd	nd	nd	nd	nd
Isopropylbenzene	50	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	50	nd	nd	nd	nd	nd
Bromobenzene	50	nd	nd	nd	nd	nd
n-Propylbenzene	50	nd	74	70	nd	84
2-Chlorotoluene	50	nd	nd	nd	nd	nd
4-Chlorotoluene	50	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	50	63	74	65	nd	nd
tert-Butylbenzene	50	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	50	78	110	100	60	nd
sec-Butylbenzene	50	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	50	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	50	nd	nd	nd	nd	nd
Isopropyltoluene	50	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	50	nd	nd	nd	nd	nd
n-Butylbenzene	50	nd	nd	51	nd	nd
1,2-Dibromo-3-Chloropropane	50	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	100	nd	nd	nd	nd	nd
Naphthalene	100	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	100	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	100	nd	nd	nd	nd	nd

### Surrogate recoveries

Dibromofluoromethane	106%	94%	103%	102%	124%	100%
Toluene-d8	74%	74%	76%	75%	73%	74%
4-Bromofluorobenzene	95%	100%	99%	97%	97%	101%

### Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
 CITY OF OLYMPIA WSDOT PROJECT  
 Client Project #0415-049-02  
 Olympia, Washington

ESN Northwest  
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Analytical Results

8260, µg/kg (Soil)		MW14-103108-8 MS	MW14-103108-8 MSD	RPD
Date extracted	Reporting	11/02/08	11/02/08	
Date analyzed	Limits	11/12/08	11/12/08	
Dichlorodifluoromethane	50			
Chloromethane	50			
Vinyl chloride	50			
Bromomethane	50			
Chloroethane	50			
Trichlorofluoromethane	50			
1,1-Dichloroethene	50	89%	110%	21%
Methylene chloride	20			
trans-1,2-Dichloroethene	50			
1,1-Dichloroethane	50			
cis-1,2-Dichloroethene	50			
2,2-Dichloropropane	50			
Chloroform	50			
Bromochloromethane	50			
1,1,1-Trichloroethane	50			
1,2-Dichloroethane (EDC)	50			
1,1-Dichloropropene	50			
Carbon tetrachloride	50			
Benzene	20	78%	88%	12%
Trichloroethene	20	85%	101%	17%
1,2-Dichloropropane	50			
Dibromomethane	50			
Bromodichloromethane	50			
cis-1,3-Dichloropropene	50			
Toluene	50	98%	118%	19%
trans-1,3-Dichloropropene	50			
1,1,2-Trichloroethane	50			
1,3-Dichloropropane	50			
Dibromochloromethane	50			
Tetrachloroethene	20			
1,2-Dibromoethane (EDB)	50			
Chlorobenzene	50	112%	133%	17%
1,1,1,2-Tetrachloroethane	50			
Ethylbenzene	50			
Xylenes	150			
Styrene	50			
Bromoform	50			
1,1,1,2,2-Tetrachloroethane	50			
Isopropylbenzene	50			
1,2,3-Trichloropropane	50			
Bromobenzene	50			
n-Propylbenzene	50			
2-Chlorotoluene	50			
4-Chlorotoluene	50			
1,3,5-Trimethylbenzene	50			
tert-Butylbenzene	50			
1,2,4-Trimethylbenzene	50			
sec-Butylbenzene	50			
1,3-Dichlorobenzene	50			
1,4-Dichlorobenzene	50			
Isopropyltoluene	50			
1,2-Dichlorobenzene	50			
n-Butylbenzene	50			
1,2-Dibromo-3-Chloropropane	50			
1,2,4-Trichlorobenzene	100			
Naphthalene	100			
Hexachloro-1,3-butadiene	100			
1,2,3-Trichlorobenzene	100			
<b>Surrogate recoveries</b>				
Dibromofluoromethane		99%	98%	
Toluene-d8		75%	77%	
4-Bromofluorobenzene		101%	104%	

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
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 Acceptable RPD limit: 35%

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## Analytical Results

8260, µg/L (Water)	Reporting	MTH BLK	LCS	PP20-103008-W	PP19-103008-W	PP18-103008-W	MW1-103008-W
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Dichlorodifluoromethane	1.0	nd		nd	nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd	nd
Vinyl chloride	0.2	nd		nd	nd	nd	nd
Bromomethane	1.0	nd		nd	nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	98%	nd	nd	nd	nd
Methylene chloride	1.0	nd		nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd		nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Chloroform	1.0	nd		nd	nd	nd	nd
Bromochloromethane	1.0	nd		nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd		nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd
Carbon tetrachloride	1.0	nd		nd	nd	nd	nd
Benzene	1.0	nd	70%	nd	nd	nd	nd
Trichloroethene	1.0	nd	78%	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd	nd
Bromodichloromethane	1.0	nd		nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
Toluene	1.0	nd	67%	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd		nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromochloromethane	1.0	nd		nd	nd	nd	nd
Tetrachloroethene	1.0	nd		nd	nd	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd		nd	nd	nd	nd
Chlorobenzene	1.0	nd	113%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
Ethylbenzene	1.0	nd		nd	nd	nd	nd
Xylenes	3.0	nd		nd	nd	nd	nd
Styrene	1.0	nd		nd	nd	nd	nd
Bromoform	1.0	nd		nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
Isopropylbenzene	1.0	nd		nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd		nd	nd	nd	nd
Bromobenzene	1.0	nd		nd	nd	nd	nd
n-Propylbenzene	1.0	nd		nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
tert-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
sec-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
Isopropyltoluene	1.0	nd		nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
n-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd		nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd	nd
Hexachloro-1,3-butadiene	1.0	nd		nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
<b>Surrogate recoveries</b>							
Dibromofluoromethane		99%	103%	111%	116%	124%	123%
Toluene-d8		88%	87%	88%	86%	88%	86%
4-Bromofluorobenzene		101%	102%	103%	109%	104%	105%

### Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

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## Analytical Results

8260, µg/L (Water)	Reporting	MW2-103008-W	MW3-103008-W	MW4-103008-W	MW4-103008-W MS	MW4-103008-W MS	RPD
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Dichlorodifluoromethane	1.0	nd	nd	nd			
Chloromethane	1.0	nd	nd	nd			
Vinyl chloride	0.2	nd	nd	nd			
Bromomethane	1.0	nd	nd	nd			
Chloroethane	1.0	nd	nd	nd			
Trichlorofluoromethane	1.0	nd	nd	nd			
1,1-Dichloroethene	1.0	nd	nd	nd	83%	80%	3.7%
Methylene chloride	1.0	nd	nd	nd			
trans-1,2-Dichloroethene	1.0	nd	nd	nd			
1,1-Dichloroethane	1.0	nd	nd	nd			
cis-1,2-Dichloroethene	1.0	nd	nd	nd			
2,2-Dichloropropane	1.0	nd	nd	nd			
Chloroform	1.0	nd	nd	nd			
Bromochloromethane	1.0	nd	nd	nd			
1,1,1-Trichloroethane	1.0	nd	nd	nd			
1,2-Dichloroethane (EDC)	1.0	nd	nd	nd			
1,1-Dichloropropene	1.0	nd	nd	nd			
Carbon tetrachloride	1.0	nd	nd	nd			
Benzene	1.0	nd	nd	nd	111%	124%	11%
Trichloroethene	1.0	nd	nd	nd	128%	130%	1.6%
1,2-Dichloropropane	1.0	nd	nd	nd			
Dibromomethane	1.0	nd	nd	nd			
Bromodichloromethane	1.0	nd	nd	nd			
cis-1,3-Dichloropropene	1.0	nd	nd	nd			
Toluene	1.0	nd	nd	nd	80%	87%	8.4%
trans-1,3-Dichloropropene	1.0	nd	nd	nd			
1,1,2-Trichloroethane	1.0	nd	nd	nd			
1,3-Dichloropropane	1.0	nd	nd	nd			
Dibromochloromethane	1.0	nd	nd	nd			
Tetrachloroethene	1.0	nd	nd	nd			
1,2-Dibromoethane (EDB)	1.0	nd	nd	nd			
Chlorobenzene	1.0	nd	nd	nd	88%	100%	13%
1,1,1,2-Tetrachloroethane	1.0	nd	nd	nd			
Ethylbenzene	1.0	nd	nd	nd			
Xylenes	3.0	nd	nd	nd			
Styrene	1.0	nd	nd	nd			
Bromoform	1.0	nd	nd	nd			
1,1,2,2-Tetrachloroethane	1.0	nd	nd	nd			
Isopropylbenzene	1.0	nd	nd	nd			
1,2,3-Trichloropropane	1.0	nd	nd	nd			
Bromobenzene	1.0	nd	nd	nd			
n-Propylbenzene	1.0	nd	nd	nd			
2-Chlorotoluene	1.0	nd	nd	nd			
4-Chlorotoluene	1.0	nd	nd	nd			
1,3,5-Trimethylbenzene	1.0	nd	nd	nd			
tert-Butylbenzene	1.0	nd	nd	nd			
1,2,4-Trimethylbenzene	1.0	nd	nd	nd			
sec-Butylbenzene	1.0	nd	nd	nd			
1,3-Dichlorobenzene	1.0	nd	nd	nd			
1,4-Dichlorobenzene	1.0	nd	nd	nd			
Isopropyltoluene	1.0	nd	nd	nd			
1,2-Dichlorobenzene	1.0	nd	nd	nd			
n-Butylbenzene	1.0	nd	nd	nd			
1,2-Dibromo-3-Chloropropane	1.0	nd	nd	nd			
1,2,4-Trichlorobenzene	1.0	nd	nd	nd			
Naphthalene	1.0	nd	nd	nd			
Hexachloro-1,3-butadiene	1.0	nd	nd	nd			
1,2,3-Trichlorobenzene	1.0	nd	nd	nd			

## Surrogate recoveries

Dibromofluoromethane	124%	123%	127%	117%	115%
Toluene-d8	84%	80%	84%	86%	89%
4-Bromofluorobenzene	106%	106%	106%	106%	111%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

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## Analytical Results

8260, µg/L (Water)	Reporting Limits	MTH BLK 11/08/08	LCS 11/08/08	MW5-103108-W 11/08/08	MW6-103108-W 11/08/08	MW7-103108-W 11/08/08	MW8-103108-W 11/08/08
Dichlorodifluoromethane	1.0	nd		nd	nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd	nd
Vinyl chloride	0.2	nd		nd	nd	nd	nd
Bromomethane	1.0	nd		nd	nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	71%	nd	nd	nd	nd
Methylene chloride	1.0	nd		nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd		nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Chloroform	1.0	nd		nd	nd	nd	nd
Bromochloromethane	1.0	nd		nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd		nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd
Carbon tetrachloride	1.0	nd		nd	nd	nd	nd
Benzene	1.0	nd	101%	nd	nd	nd	nd
Trichloroethene	1.0	nd	81%	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd	nd
Bromodichloromethane	1.0	nd		nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
Toluene	1.0	nd	104%	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd		nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromochloromethane	1.0	nd		nd	nd	nd	nd
Tetrachloroethene	1.0	nd		nd	nd	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd		nd	nd	nd	nd
Chlorobenzene	1.0	nd	82%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
Ethylbenzene	1.0	nd		nd	nd	nd	nd
Xylenes	3.0	nd		nd	nd	nd	nd
Styrene	1.0	nd		nd	nd	nd	nd
Bromoform	1.0	nd		nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
Isopropylbenzene	1.0	nd		nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd		nd	nd	nd	nd
Bromobenzene	1.0	nd		nd	nd	nd	nd
n-Propylbenzene	1.0	nd		nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
tert-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
sec-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
Isopropyltoluene	1.0	nd		nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
n-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd		nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd	nd
Hexachloro-1,3-butadiene	1.0	nd		nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
Surrogate recoveries							
Dibromofluoromethane		91%	95%	116%	121%	124%	125%
Toluene-d8		98%	103%	83%	85%	82%	82%
4-Bromofluorobenzene		102%	103%	102%	99%	102%	103%

### Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

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Analytical Results

8260, µg/L (Water)	Reporting	MW9-103108-W	MW5-103108-W MS	MW5-103108-W MSD	RPD
Date analyzed	Limits	11/08/08	11/08/08	11/08/08	
Dichlorodifluoromethane	1.0	nd			
Chloromethane	1.0	nd			
Vinyl chloride	0.2	nd			
Bromomethane	1.0	nd			
Chloroethane	1.0	nd			
Trichlorofluoromethane	1.0	nd			
1,1-Dichloroethene	1.0	nd	82%	78%	5.0%
Methylene chloride	1.0	nd			
trans-1,2-Dichloroethene	1.0	nd			
1,1-Dichloroethane	1.0	nd			
cis-1,2-Dichloroethene	1.0	nd			
2,2-Dichloropropane	1.0	nd			
Chloroform	1.0	nd			
Bromochloromethane	1.0	nd			
1,1,1-Trichloroethane	1.0	nd			
1,2-Dichloroethane (EDC)	1.0	nd			
1,1-Dichloropropene	1.0	nd			
Carbon tetrachloride	1.0	nd			
Benzene	1.0	nd	70%	67%	4.4%
Trichloroethene	1.0	nd	74%	73%	1.4%
1,2-Dichloropropane	1.0	nd			
Dibromomethane	1.0	nd			
Bromodichloromethane	1.0	nd			
cis-1,3-Dichloropropene	1.0	nd			
Toluene	1.0	nd	106%	96%	9.9%
trans-1,3-Dichloropropene	1.0	nd			
1,1,2-Trichloroethane	1.0	nd			
1,3-Dichloropropane	1.0	nd			
Dibromochloromethane	1.0	nd			
Tetrachloroethene	1.0	nd			
1,2-Dibromoethane (EDB)	1.0	nd			
Chlorobenzene	1.0	nd	110%	107%	2.8%
1,1,1,2-Tetrachloroethane	1.0	nd			
Ethylbenzene	1.0	nd			
Xylenes	3.0	nd			
Styrene	1.0	nd			
Bromoform	1.0	nd			
1,1,2,2-Tetrachloroethane	1.0	nd			
Isopropylbenzene	1.0	nd			
1,2,3-Trichloropropane	1.0	nd			
Bromobenzene	1.0	nd			
n-Propylbenzene	1.0	nd			
2-Chlorotoluene	1.0	nd			
4-Chlorotoluene	1.0	nd			
1,3,5-Trimethylbenzene	1.0	nd			
tert-Butylbenzene	1.0	nd			
1,2,4-Trimethylbenzene	1.0	nd			
sec-Butylbenzene	1.0	nd			
1,3-Dichlorobenzene	1.0	nd			
1,4-Dichlorobenzene	1.0	nd			
Isopropyltoluene	1.0	nd			
1,2-Dichlorobenzene	1.0	nd			
n-Butylbenzene	1.0	nd			
1,2-Dibromo-3-Chloropropane	1.0	nd			
1,2,4-Trichlorobenzene	1.0	nd			
Naphthalene	1.0	nd			
Hexachloro-1,3-butadiene	1.0	nd			
1,2,3-Trichlorobenzene	1.0	nd			
<b>Surrogate recoveries</b>					
Dibromofluoromethane		131%	112%	110%	
Toluene-d8		83%	85%	86%	
4-Bromofluorobenzene		104%	102%	101%	

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%



# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
 CITY OF OLYMPIA WSDOT PROJECT  
 Client Project #0415-049-02  
 Olympia, Washington

ESN Northwest  
 1210 Eastside Street SE Suite 200  
 Olympia, WA 98501  
 (360) 459-4670 (360) 459-3432 Fax  
 lab@esnw.com

## Analytical Results

8260, µg/L (Water)	Reporting Limits	MTH BLK 11/15/08	LCS 11/15/08	MW10-110408-W 11/15/08	MW11-110408-W 11/15/08	MW12-110408-W 11/15/08	MW13-110408-W 11/15/08
Dichlorodifluoromethane	1.0	nd		nd	nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd	nd
Vinyl chloride	0.2	nd		nd	nd	nd	nd
Bromomethane	1.0	nd		nd	nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	95%	nd	nd	nd	nd
Methylene chloride	1.0	nd		nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd		nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Chloroform	1.0	nd		nd	nd	nd	nd
Bromochloromethane	1.0	nd		nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd		nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd
Carbon tetrachloride	1.0	nd		nd	nd	nd	nd
Benzene	1.0	nd	134%	nd	nd	nd	nd
Trichloroethene	1.0	nd	77%	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd	nd
Bromodichloromethane	1.0	nd		nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
Toluene	1.0	nd	92%	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd		nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromochloromethane	1.0	nd		nd	nd	nd	nd
Tetrachloroethene	1.0	nd		nd	nd	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd		nd	nd	nd	nd
Chlorobenzene	1.0	nd	87%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
Ethylbenzene	1.0	nd		nd	nd	nd	nd
Xylenes	3.0	nd		nd	nd	nd	nd
Styrene	1.0	nd		nd	nd	nd	nd
Bromoform	1.0	nd		nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
Isopropylbenzene	1.0	nd		nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd		nd	nd	nd	nd
Bromobenzene	1.0	nd		nd	nd	nd	nd
n-Propylbenzene	1.0	nd		nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
tert-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
sec-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
Isopropyltoluene	1.0	nd		nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
n-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd		nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd	nd
Hexachloro-1,3-butadiene	1.0	nd		nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
<b>Surrogate recoveries</b>							
Dibromofluoromethane		95%	98%	101%	95%	99%	94%
Toluene-d8		73%	77%	72%	73%	72%	72%
4-Bromofluorobenzene		105%	108%	101%	102%	100%	105%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

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 lab@esnnw.com

## Analytical Results

8260, µg/L (Water)	Reporting	MS	MSD	RPD
Date analyzed	Limits	11/15/08	11/15/08	11/15/08
Dichlorodifluoromethane	1.0			
Chloromethane	1.0			
Vinyl chloride	0.2			
Bromomethane	1.0			
Chloroethane	1.0			
Trichlorofluoromethane	1.0			
1,1-Dichloroethene	1.0	77%	71%	8.1%
Methylene chloride	1.0			
trans-1,2-Dichloroethene	1.0			
1,1-Dichloroethane	1.0			
cis-1,2-Dichloroethene	1.0			
2,2-Dichloropropane	1.0			
Chloroform	1.0			
Bromochloromethane	1.0			
1,1,1-Trichloroethane	1.0			
1,2-Dichloroethane (EDC)	1.0			
1,1-Dichloropropene	1.0			
Carbon tetrachloride	1.0			
Benzene	1.0	91%	88%	3.4%
Trichloroethene	1.0	124%	100%	21%
1,2-Dichloropropane	1.0			
Dibromomethane	1.0			
Bromodichloromethane	1.0			
cis-1,3-Dichloropropene	1.0			
Toluene	1.0	81%	76%	6.4%
trans-1,3-Dichloropropene	1.0			
1,1,2-Trichloroethane	1.0			
1,3-Dichloropropane	1.0			
Dibromochloromethane	1.0			
Tetrachloroethene	1.0			
1,2-Dibromoethane (EDB)	1.0			
Chlorobenzene	1.0	81%	73%	10%
1,1,1,2-Tetrachloroethane	1.0			
Ethylbenzene	1.0			
Xylenes	3.0			
Styrene	1.0			
Bromoform	1.0			
1,1,2,2-Tetrachloroethane	1.0			
Isopropylbenzene	1.0			
1,2,3-Trichloropropane	1.0			
Bromobenzene	1.0			
n-Propylbenzene	1.0			
2-Chlorotoluene	1.0			
4-Chlorotoluene	1.0			
1,3,5-Trimethylbenzene	1.0			
tert-Butylbenzene	1.0			
1,2,4-Trimethylbenzene	1.0			
sec-Butylbenzene	1.0			
1,3-Dichlorobenzene	1.0			
1,4-Dichlorobenzene	1.0			
Isopropyltoluene	1.0			
1,2-Dichlorobenzene	1.0			
n-Butylbenzene	1.0			
1,2-Dibromo-3-Chloropropane	1.0			
1,2,4-Trichlorobenzene	1.0			
Naphthalene	1.0			
Hexachloro-1,3-butadiene	1.0			
1,2,3-Trichlorobenzene	1.0			

## Surrogate recoveries

Dibromofluoromethane	95%	98%
Toluene-d8	79%	77%
4-Bromofluorobenzene	138%	103%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

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 lab@esnwn.com

Analytical Results

8260, µg/L (Water)	Reporting Limits	MTH BLK	LCS	MW14-110608-W	MW15-110608-W	MW16-110608-W	Dupe1-110608-W	Dupe2-110608-W
Date analyzed		11/15/08	11/15/08	11/15/08	11/15/08	11/15/08	11/15/08	11/15/08
Dichlorodifluoromethane	1.0	nd		nd	nd	nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd	nd	nd
Vinyl chloride	0.2	nd		nd	nd	nd	nd	nd
Bromomethane	1.0	nd		nd	nd	nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	95%	nd	nd	nd	nd	nd
Methylene chloride	1.0	nd		nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd		nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd	nd
Chloroform	1.0	nd		nd	nd	nd	nd	nd
Bromochloromethane	1.0	nd		nd	nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd		nd	nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd	nd
Carbon tetrachloride	1.0	nd		nd	nd	nd	nd	nd
Benzene	1.0	nd	134%	nd	nd	nd	nd	nd
Trichloroethene	1.0	nd	77%	nd	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd		nd	nd	nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd	nd	nd
Bromodichloromethane	1.0	nd		nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd	nd
Toluene	1.0	nd	92%	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd		nd	nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd	nd
Dibromochloromethane	1.0	nd		nd	nd	nd	nd	nd
Tetrachloroethene	1.0	nd		nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd		nd	nd	nd	nd	nd
Chlorobenzene	1.0	nd	87%	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd	nd
Ethylbenzene	1.0	nd		nd	nd	nd	nd	nd
Xylenes	3.0	nd		nd	nd	nd	nd	nd
Styrene	1.0	nd		nd	nd	nd	nd	nd
Bromoform	1.0	nd		nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd	nd
Isopropylbenzene	1.0	nd		nd	nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd		nd	nd	nd	nd	nd
Bromobenzene	1.0	nd		nd	nd	nd	nd	nd
n-Propylbenzene	1.0	nd		nd	nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd	nd	nd
tert-Butylbenzene	1.0	nd		nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd	nd	nd
sec-Butylbenzene	1.0	nd		nd	nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
Isopropyltoluene	1.0	nd		nd	nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
n-Butylbenzene	1.0	nd		nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd		nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	1.0	nd		nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
<b>Surrogate recoveries</b>								
Dibromofluoromethane		95%	98%	91%	95%	96%	95%	96%
Toluene-d8		73%	77%	71%	72%	71%	68%	69%
4-Bromofluorobenzene		105%	108%	95%	98%	98%	96%	95%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

**ESN NORTHWEST CHEMISTRY LABORATORY**

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 lab@esnnw.com

**Analytical Results**

<b>8260, µg/L (Water)</b>	Reporting	<b>MS</b>	<b>MSD</b>	<b>RPD</b>
Date analyzed	Limits	11/15/08	11/15/08	11/15/08
Dichlorodifluoromethane	1.0			
Chloromethane	1.0			
Vinyl chloride	0.2			
Bromomethane	1.0			
Chloroethane	1.0			
Trichlorofluoromethane	1.0			
1,1-Dichloroethene	1.0	77%	71%	8.1%
Methylene chloride	1.0			
trans-1,2-Dichloroethene	1.0			
1,1-Dichloroethane	1.0			
cis-1,2-Dichloroethene	1.0			
2,2-Dichloropropane	1.0			
Chloroform	1.0			
Bromochloromethane	1.0			
1,1,1-Trichloroethane	1.0			
1,2-Dichloroethane (EDC)	1.0			
1,1-Dichloropropene	1.0			
Carbon tetrachloride	1.0			
Benzene	1.0	91%	88%	3.4%
Trichloroethene	1.0	124%	100%	21%
1,2-Dichloropropane	1.0			
Dibromomethane	1.0			
Bromodichloromethane	1.0			
cis-1,3-Dichloropropene	1.0			
Toluene	1.0	81%	76%	6.4%
trans-1,3-Dichloropropene	1.0			
1,1,2-Trichloroethane	1.0			
1,3-Dichloropropane	1.0			
Dibromochloromethane	1.0			
Tetrachloroethene	1.0			
1,2-Dibromoethane (EDB)	1.0			
Chlorobenzene	1.0	81%	73%	10%
1,1,1,2-Tetrachloroethane	1.0			
Ethylbenzene	1.0			
Xylenes	3.0			
Styrene	1.0			
Bromoform	1.0			
1,1,2,2-Tetrachloroethane	1.0			
Isopropylbenzene	1.0			
1,2,3-Trichloropropane	1.0			
Bromobenzene	1.0			
n-Propylbenzene	1.0			
2-Chlorotoluene	1.0			
4-Chlorotoluene	1.0			
1,3,5-Trimethylbenzene	1.0			
tert-Butylbenzene	1.0			
1,2,4-Trimethylbenzene	1.0			
sec-Butylbenzene	1.0			
1,3-Dichlorobenzene	1.0			
1,4-Dichlorobenzene	1.0			
Isopropyltoluene	1.0			
1,2-Dichlorobenzene	1.0			
n-Butylbenzene	1.0			
1,2-Dibromo-3-Chloropropane	1.0			
1,2,4-Trichlorobenzene	1.0			
Naphthalene	1.0			
Hexachloro-1,3-butadiene	1.0			
1,2,3-Trichlorobenzene	1.0			

**Surrogate recoveries**

Dibromofluoromethane	95%	98%
Toluene-d8	79%	77%
4-Bromofluorobenzene	138%	103%

**Data Qualifiers and Analytical Comments**

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

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Analytical Results

<b>8270, mg/kg</b>	<b>MTH BLK</b>		<b>LCS</b>	<b>PP20-103008-3</b>	<b>PP20-103008-9</b>	<b>PP19-103008-3</b>
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/03/08	11/03/08	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08	11/03/08	11/03/08
Moisture, %				6%	21%	13%
Pyridine	1.0	nd		nd	nd	nd
Aniline	1.0	nd		nd	nd	nd
Phenol	1.0	nd		nd	nd	nd
2-Chlorophenol	1.0	nd		nd	nd	nd
Bis (2-chloroethyl) ether	1.0	nd		nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd
1,4-Dichlorobenzene	1.0	nd	119%	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd
Benzyl alcohol	1.0	nd		nd	nd	nd
2-Methylphenol (o-cresol)	1.0	nd		nd	nd	nd
Bis (2-chloroisopropyl) ether	5.0	nd		nd	nd	nd
3,4-Methylphenol (m,p-cresol)	1.0	nd		nd	nd	nd
Hexachlorethane	1.0	nd		nd	nd	nd
N-Nitroso-di-n-propylamine	1.0	nd		nd	nd	nd
Nitrobenzene	1.0	nd		nd	nd	nd
Isophorone	1.0	nd		nd	nd	nd
2-Nitrophenol	5.0	nd		nd	nd	nd
4-Nitrophenol	5.0	nd		nd	nd	nd
2,4-Dimethylphenol	1.0	nd		nd	nd	nd
Bis (2-chloroethoxy) methane	1.0	nd		nd	nd	nd
2,4-Dichlorophenol	5.0	nd		nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd
4-Chloroaniline	5.0	nd		nd	nd	nd
Hexachlorobutadiene	1.0	nd	119%	nd	nd	nd
4-Chloro-3-methylphenol	5.0	nd		nd	nd	nd
2-Methylnaphthalene	1.0	nd		nd	nd	nd
1-Methylnaphthalene	1.0	nd		nd	nd	nd
Hexachlorocyclopentadiene	1.0	nd		nd	nd	nd
2,4,6-Trichlorophenol	5.0	nd		nd	nd	nd
2,4,5-Trichlorophenol	5.0	nd		nd	nd	nd
2-Chloronaphthalene	1.0	nd		nd	nd	nd
2-Nitroaniline	5.0	nd		nd	nd	nd
1,4-Dinitrobenzene	5.0	nd		nd	nd	nd
Dimethylphthalate	1.0	nd		nd	nd	nd
Acenaphthylene	0.1	nd		nd	nd	nd
1,3-Dinitrobenzene	5.0	nd		nd	nd	nd
2,6-Dinitrotoluene	1.0	nd		nd	nd	nd
1,2-Dinitrobenzene	1.0	nd		nd	nd	nd
Acenaphthene	0.1	nd	111%	nd	nd	0.28
3-Nitroaniline	5.0	nd		nd	nd	nd
Dibenzofuran	1.0	nd		nd	nd	0.30
2,4-Dinitrotoluene	1.0	nd		nd	nd	nd
2,3,4,6-Tetrachlorophenol	1.0	nd		nd	nd	nd
2,3,5,6-Tetrachlorophenol	1.0	nd		nd	nd	nd
2,4-Dinitrophenol	5.0	nd		nd	nd	nd

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## Analytical Results

8270, mg/kg	MTH BLK		LCS	PP20-103008-3	PP20-103008-9	PP19-103008-3
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/03/08	11/03/08	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08	11/03/08	11/03/08
Moisture, %				6%	21%	13%
Fluorene	0.1	nd		nd	nd	<b>0.92</b>
4-Chlorophenylphenylether	1.0	nd		nd	nd	nd
Diethylphthalate	1.0	nd		nd	nd	nd
4-Nitroaniline	5.0	nd		nd	nd	nd
4,6-Dinitro-2-methylphenol	5.0	nd		nd	nd	nd
N-nitrosodiphenylamine	1.0	nd	133%	nd	nd	nd
Azobenzene	1.0	nd		nd	nd	nd
4-Bromophenylphenylether	1.0	nd		nd	nd	nd
Hexachlorobenzene	1.0	nd		nd	nd	nd
Pentachlorophenol	5.0	nd		nd	nd	nd
Phenanthrene	0.1	nd		<b>0.19</b>	nd	<b>8.1</b>
Anthracene	0.1	nd		nd	nd	<b>1.6</b>
Carbazole	1.0	nd		nd	nd	nd
Di-n-butylphthalate	1.0	nd		nd	nd	nd
Fluoranthene	0.1	nd	120%	<b>0.15</b>	nd	<b>7.9</b>
Pyrene	0.1	nd		<b>0.17</b>	nd	<b>7.2</b>
Butylbenzylphthalate	1.0	nd		nd	nd	nd
Bis(2-ethylhexyl) adipate	1.0	nd		nd	nd	nd
Benzo(a)anthracene	0.1	nd		nd	nd	<b>1.1</b>
Chrysene	0.1	nd		nd	nd	<b>3.4</b>
Bis (2-ethylhexyl) phthalate	1.0	nd		nd	nd	nd
Di-n-octyl phthalate	1.0	nd	73%	nd	nd	nd
Benzo(b)fluoranthene	0.1	nd		nd	nd	<b>0.58</b>
Benzo(k)fluoranthene	0.1	nd		nd	nd	<b>0.75</b>
Benzo(a)pyrene	0.1	nd	71%	nd	nd	<b>1.9</b>
Dibenzo(a,h)anthracene	0.1	nd		nd	nd	nd
Benzo(ghi)perylene	0.1	nd		nd	nd	<b>0.66</b>
Indeno(1,2,3-cd)pyrene	0.1	nd		nd	nd	<b>0.49</b>

## Surrogate recoveries

2-Fluorophenol	91%	108%	111%	101%	109%
Phenol-d6	101%	114%	100%	107%	115%
Nitrobenzene-d5	109%	131%	113%	111%	121%
2-Fluorobiphenyl	87%	131%	98%	94%	103%
2,4,6-Tribromophenol	41%	44%	31%	31%	36%
4-Terphenyl-d14	72%	119%	73%	70%	81%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

### Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6- tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%

# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
CITY OF OLYMPIA - WSDOT PROJECT

Client Project #0415-049-02  
Olympia, Washington

ESN Northwest  
1210 Eastside Street SE Suite 200  
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## Analytical Results

8270, mg/kg		PP19-103008-6	PP18-103008-3	PP18-103008-10	MW13-103008-3
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/03/08	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08	11/03/08
Moisture, %		16%	8%	48%	11%
Pyridine	1.0	nd	nd	nd	nd
Aniline	1.0	nd	nd	nd	nd
Phenol	1.0	nd	nd	nd	nd
2-Chlorophenol	1.0	nd	nd	nd	nd
Bis (2-chloroethyl) ether	1.0	nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd	nd	nd	nd
Benzyl alcohol	1.0	nd	nd	nd	nd
2-Methylphenol (o-cresol)	1.0	nd	nd	nd	nd
Bis (2-chloroisopropyl) ether	5.0	nd	nd	nd	nd
3,4-Methylphenol (m,p-cresol)	1.0	nd	nd	nd	nd
Hexachlorethane	1.0	nd	nd	nd	nd
N-Nitroso-di-n-propylamine	1.0	nd	nd	nd	nd
Nitrobenzene	1.0	nd	nd	nd	nd
Isophorone	1.0	nd	nd	nd	nd
2-Nitrophenol	5.0	nd	nd	nd	nd
4-Nitrophenol	5.0	nd	nd	nd	nd
2,4-Dimethylphenol	1.0	nd	nd	nd	nd
Bis (2-chloroethoxy) methane	1.0	nd	nd	nd	nd
2,4-Dichlorophenol	5.0	nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd	nd	nd	nd
Naphthalene	1.0	nd	nd	nd	nd
4-Chloroaniline	5.0	nd	nd	nd	nd
Hexachlorobutadiene	1.0	nd	nd	nd	nd
4-Chloro-3-methylphenol	5.0	nd	nd	nd	nd
2-Methylnaphthalene	1.0	nd	nd	nd	nd
1-Methylnaphthalene	1.0	nd	nd	nd	nd
Hexachlorocyclopentadiene	1.0	nd	nd	nd	nd
2,4,6-Trichlorophenol	5.0	nd	nd	nd	nd
2,4,5-Trichlorophenol	5.0	nd	nd	nd	nd
2-Chloronaphthalene	1.0	nd	nd	nd	nd
2-Nitroaniline	5.0	nd	nd	nd	nd
1,4-Dinitrobenzene	5.0	nd	nd	nd	nd
Dimethylphthalate	1.0	nd	nd	nd	nd
Acenaphthylene	0.1	nd	nd	nd	nd
1,3-Dinitrobenzene	5.0	nd	nd	nd	nd
2,6-Dinitrotoluene	1.0	nd	nd	nd	nd
1,2-Dinitrobenzene	1.0	nd	nd	nd	nd
Acenaphthene	0.1	nd	nd	nd	nd
3-Nitroaniline	5.0	nd	nd	nd	nd
Dibenzofuran	1.0	nd	nd	nd	nd
2,4-Dinitrotoluene	1.0	nd	nd	nd	nd
2,3,4,6-Tetrachlorophenol	1.0	nd	nd	nd	nd
2,3,5,6-Tetrachlorophenol	1.0	nd	nd	nd	nd
2,4-Dinitrophenol	5.0	nd	nd	nd	nd

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**Analytical Results**

<b>8270, mg/kg</b>		<b>PP19-103008-6</b>	<b>PP18-103008-3</b>	<b>PP18-103008-10</b>	<b>MW13-103008-3</b>
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/03/08	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08	11/03/08
Moisture, %		16%	8%	48%	11%
Fluorene	0.1	nd	nd	nd	nd
4-Chlorophenylphenylether	1.0	nd	nd	nd	nd
Diethylphthalate	1.0	nd	nd	nd	nd
4-Nitroaniline	5.0	nd	nd	nd	nd
4,6-Dinitro-2-methylphenol	5.0	nd	nd	nd	nd
N-nitrosodiphenylamine	1.0	nd	nd	nd	nd
Azobenzene	1.0	nd	nd	nd	nd
4-Bromophenylphenylether	1.0	nd	nd	nd	nd
Hexachlorobenzene	1.0	nd	nd	nd	nd
Pentachlorophenol	5.0	nd	nd	nd	nd
Phenanthrene	0.1	nd	nd	<b>0.52</b>	nd
Anthracene	0.1	nd	nd	<b>0.18</b>	nd
Carbazole	1.0	nd	nd	nd	nd
Di-n-butylphthalate	1.0	nd	nd	nd	nd
Fluoranthene	0.1	nd	nd	<b>1.1</b>	nd
Pyrene	0.1	nd	nd	<b>1.2</b>	nd
Butylbenzylphthalate	1.0	nd	nd	nd	nd
Bis(2-ethylhexyl) adipate	1.0	nd	nd	nd	nd
Benzo(a)anthracene	0.1	nd	nd	nd	nd
Chrysene	0.1	nd	nd	nd	nd
Bis (2-ethylhexyl) phthalate	1.0	nd	nd	nd	nd
Di-n-octyl phthalate	1.0	nd	nd	nd	nd
Benzo(b)fluoranthene	0.1	nd	nd	nd	nd
Benzo(k)fluoranthene	0.1	nd	nd	nd	nd
Benzo(a)pyrene	0.1	nd	nd	nd	nd
Dibenzo(a,h)anthracene	0.1	nd	nd	nd	nd
Benzo(ghi)perylene	0.1	nd	nd	nd	nd
Indeno(1,2,3-cd)pyrene	0.1	nd	nd	nd	nd

**Surrogate recoveries**

2-Fluorophenol	108%	107%	98%	111%
Phenol-d6	112%	111%	97%	116%
Nitrobenzene-d5	111%	112%	110%	118%
2-Fluorobiphenyl	92%	97%	94%	100%
2,4,6-Tribromophenol	35%	32%	38%	39%
4-Terphenyl-d14	70%	71%	68%	74%

**Data Qualifiers and Analytical Comments**

nd - not detected at listed reporting limits

Acceptable Recovery limits:

- 2-Fluorophenol: 10-135 %
- Phenol - d5: 10-135 %
- 2,4,6- tribromophenol: 29-159%
- Nitrobenzene - d5: 20-120 %
- 2-Fluorobiphenyl: 50-150%
- p-Terphenyl-d14: 50-150%
- Acceptable RPD limit: 35%



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## Analytical Results

DUP

8270, mg/kg	MW13-103008-8	MW13-103008-8	MW11-103008-3	MW11-103008-8
Matrix	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08
Moisture, %		15%	15%	18%
Pyridine	1.0	nd	nd	nd
Aniline	1.0	nd	nd	nd
Phenol	1.0	nd	nd	nd
2-Chlorophenol	1.0	nd	nd	nd
Bis (2-chloroethyl) ether	1.0	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd	nd	nd
Benzyl alcohol	1.0	nd	nd	nd
2-Methylphenol (o-cresol)	1.0	nd	nd	nd
Bis (2-chloroisopropyl) ether	5.0	nd	nd	nd
3,4-Methylphenol (m,p-cresol)	1.0	nd	nd	nd
Hexachlorethane	1.0	nd	nd	nd
N-Nitroso-di-n-propylamine	1.0	nd	nd	nd
Nitrobenzene	1.0	nd	nd	nd
Isophorone	1.0	nd	nd	nd
2-Nitrophenol	5.0	nd	nd	nd
4-Nitrophenol	5.0	nd	nd	nd
2,4-Dimethylphenol	1.0	nd	nd	nd
Bis (2-chloroethoxy) methane	1.0	nd	nd	nd
2,4-Dichlorophenol	5.0	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd	nd	nd
Naphthalene	1.0	nd	nd	nd
4-Chloroaniline	5.0	nd	nd	nd
Hexachlorobutadiene	1.0	nd	nd	nd
4-Chloro-3-methylphenol	5.0	nd	nd	nd
2-Methylnaphthalene	1.0	nd	nd	nd
1-Methylnaphthalene	1.0	nd	nd	nd
Hexachlorocyclopentadiene	1.0	nd	nd	nd
2,4,6-Trichlorophenol	5.0	nd	nd	nd
2,4,5-Trichlorophenol	5.0	nd	nd	nd
2-Chloronaphthalene	1.0	nd	nd	nd
2-Nitroaniline	5.0	nd	nd	nd
1,4-Dinitrobenzene	5.0	nd	nd	nd
Dimethylphthalate	1.0	nd	nd	nd
Acenaphthylene	0.1	nd	nd	nd
1,3-Dinitrobenzene	5.0	nd	nd	nd
2,6-Dinitrotoluene	1.0	nd	nd	nd
1,2-Dinitrobenzene	1.0	nd	nd	nd
Acenaphthene	0.1	nd	nd	nd
3-Nitroaniline	5.0	nd	nd	nd
Dibenzofuran	1.0	nd	nd	nd
2,4-Dinitrotoluene	1.0	nd	nd	nd
2,3,4,6-Tetrachlorophenol	1.0	nd	nd	nd
2,3,5,6-Tetrachlorophenol	1.0	nd	nd	nd
2,4-Dinitrophenol	5.0	nd	nd	nd

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Analytical Results		DUP			
8270, mg/kg		MW13-103008-8	MW13-103008-8	MW11-103008-3	MW11-103008-8
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/03/08	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08	11/03/08
Moisture, %		15%	15%	18%	17%

Fluorene	0.1	nd	nd	nd	nd
4-Chlorophenylphenylether	1.0	nd	nd	nd	nd
Diethylphthalate	1.0	nd	nd	nd	nd
4-Nitroaniline	5.0	nd	nd	nd	nd
4,6-Dinitro-2-methylphenol	5.0	nd	nd	nd	nd
N-nitrosodiphenylamine	1.0	nd	nd	nd	nd
Azobenzene	1.0	nd	nd	nd	nd
4-Bromophenylphenylether	1.0	nd	nd	nd	nd
Hexachlorobenzene	1.0	nd	nd	nd	nd
Pentachlorophenol	5.0	nd	nd	nd	nd
Phenanthrene	0.1	nd	nd	nd	nd
Anthracene	0.1	nd	nd	nd	nd
Carbazole	1.0	nd	nd	nd	nd
Di-n-butylphthalate	1.0	nd	nd	nd	nd
Fluoranthene	0.1	nd	nd	nd	nd
Pyrene	0.1	nd	nd	nd	nd
Butylbenzylphthalate	1.0	nd	nd	nd	nd
Bis(2-ethylhexyl) adipate	1.0	nd	nd	nd	nd
Benzo(a)anthracene	0.1	nd	nd	nd	nd
Chrysene	0.1	nd	nd	nd	nd
Bis (2-ethylhexyl) phthalate	1.0	nd	nd	nd	nd
Di-n-octyl phthalate	1.0	nd	nd	nd	nd
Benzo(b)fluoranthene	0.1	nd	nd	nd	nd
Benzo(k)fluoranthene	0.1	nd	nd	nd	nd
Benzo(a)pyrene	0.1	nd	nd	nd	nd
Dibenzo(a,h)anthracene	0.1	nd	nd	nd	nd
Benzo(ghi)perylene	0.1	nd	nd	nd	nd
Indeno(1,2,3-cd)pyrene	0.1	nd	nd	nd	nd

**Surrogate recoveries**

2-Fluorophenol	114%	114%	113%	116%
Phenol-d6	115%	114%	116%	121%
Nitrobenzene-d5	117%	116%	99%	130%
2-Fluorobiphenyl	97%	96%	84%	114%
2,4,6-Tribromophenol	35%	39%	36%	37%
4-Terphenyl-d14	71%	71%	63%	86%

**Data Qualifiers and Analytical Comments**

nd - not detected at listed reporting limits

Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6- tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%

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## Analytical Results

8270, mg/kg		MS	MSD	RPD
Matrix	Soil	Soil	Soil	
Date extracted	Reporting	11/03/08	11/03/08	
Date analyzed	Limits	11/03/08	11/03/08	
Moisture, %				

Pyridine	1.0			
Aniline	1.0			
Phenol	1.0	87%	91%	4%
2-Chlorophenol	1.0	107%	113%	5%
Bis (2-chloroethyl) ether	1.0			
1,3-Dichlorobenzene	1.0			
1,4-Dichlorobenzene	1.0	102%	102%	0%
1,2-Dichlorobenzene	1.0			
Benzyl alcohol	1.0			
2-Methylphenol (o-cresol)	1.0			
Bis (2-chloroisopropyl) ether	5.0			
3,4-Methylphenol (m,p-cresol)	1.0			
Hexachlorethane	1.0			
N-Nitroso-di-n-propylamine	1.0	116%	115%	1%
Nitrobenzene	1.0			
Isophorone	1.0			
2-Nitrophenol	5.0			
4-Nitrophenol	5.0			
2,4-Dimethylphenol	1.0	89%	94%	5%
Bis (2-chloroethoxy) methane	1.0			
2,4-Dichlorophenol	5.0			
1,2,4-Trichlorobenzene	1.0	119%	119%	0%
Naphthalene	1.0			
4-Chloroaniline	5.0			
Hexachlorobutadiene	1.0			
4-Chloro-3-methylphenol	5.0	68%	72%	6%
2-Methylnaphthalene	1.0			
1-Methylnaphthalene	1.0			
Hexachlorocyclopentadiene	1.0			
2,4,6-Trichlorophenol	5.0			
2,4,5-Trichlorophenol	5.0			
2-Chloronaphthalene	1.0			
2-Nitroaniline	5.0			
1,4-Dinitrobenzene	5.0			
Dimethylphthalate	1.0			
Acenaphthylene	0.1			
1,3-Dinitrobenzene	5.0			
2,6-Dinitrotoluene	1.0			
1,2-Dinitrobenzene	1.0			
Acenaphthene	0.1	96%	98%	2%
3-Nitroaniline	5.0			
Dibenzofuran	1.0			
2,4-Dinitrotoluene	1.0	84%	86%	2%
2,3,4,6-Tetrachlorophenol	1.0			
2,3,5,6-Tetrachlorophenol	1.0			
2,4-Dinitrophenol	5.0			

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**Analytical Results**

<b>8270, mg/kg</b>		<b>MS</b>	<b>MSD</b>	<b>RPD</b>
Matrix	Soil	Soil	Soil	
Date extracted	Reporting	11/03/08	11/03/08	
Date analyzed	Limits	11/03/08	11/03/08	
Moisture, %				
Fluorene	0.1			
4-Chlorophenylphenylether	1.0			
Diethylphthalate	1.0			
4-Nitroaniline	5.0			
4,6-Dinitro-2-methylphenol	5.0			
N-nitrosodiphenylamine	1.0			
Azobenzene	1.0			
4-Bromophenylphenylether	1.0			
Hexachlorobenzene	1.0			
Pentachlorophenol	5.0			
Phenanthrene	0.1			
Anthracene	0.1			
Carbazole	1.0			
Di-n-butylphthalate	1.0			
Fluoranthene	0.1			
Pyrene	0.1	75%	76%	1%
Butylbenzylphthalate	1.0			
Bis(2-ethylhexyl) adipate	1.0			
Benzo(a)anthracene	0.1			
Chrysene	0.1			
Bis (2-ethylhexyl) phthalate	1.0			
Di-n-octyl phthalate	1.0			
Benzo(b)fluoranthene	0.1			
Benzo(k)fluoranthene	0.1			
Benzo(a)pyrene	0.1			
Dibenzo(a,h)anthracene	0.1			
Benzo(ghi)perylene	0.1			
Indeno(1,2,3-cd)pyrene	0.1			

**Surrogate recoveries**

2-Fluorophenol	86%	86%
Phenol-d6	92%	91%
Nitrobenzene-d5	90%	88%
2-Fluorobiphenyl	86%	84%
2,4,6-Tribromophenol	47%	49%
4-Terphenyl-d14	70%	68%

**Data Qualifiers and Analytical Comments**

nd - not detected at listed reporting limits

Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6-tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%

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## Analytical Results

8270, mg/kg		MTH BLK	LCS	MW10-103108-3	MW10-103108-7	MW12-103108-4.5
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/05/08	11/05/08	11/04/08	11/04/08	11/04/08
Date analyzed	Limits	11/05/08	11/05/08	11/05/08	11/05/08	11/05/08
Moisture, %				7%	20%	18%
Pyridine	1.0	nd		nd	nd	nd
Aniline	1.0	nd		nd	nd	nd
Phenol	1.0	nd		nd	nd	nd
2-Chlorophenol	1.0	nd		nd	nd	nd
Bis (2-chloroethyl) ether	1.0	nd		nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd
1,4-Dichlorobenzene	1.0	nd	125%	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd
Benzyl alcohol	1.0	nd		nd	nd	nd
2-Methylphenol (o-cresol)	1.0	nd		nd	nd	nd
Bis (2-chloroisopropyl) ether	5.0	nd		nd	nd	nd
3,4-Methylphenol (m,p-cresol)	1.0	nd		nd	nd	nd
Hexachlorethane	1.0	nd		nd	nd	nd
N-Nitroso-di-n-propylamine	1.0	nd		nd	nd	nd
Nitrobenzene	1.0	nd		nd	nd	nd
Isophorone	1.0	nd		nd	nd	nd
2-Nitrophenol	5.0	nd		nd	nd	nd
4-Nitrophenol	5.0	nd		nd	nd	nd
2,4-Dimethylphenol	1.0	nd		nd	nd	nd
Bis (2-chloroethoxy) methane	1.0	nd		nd	nd	nd
2,4-Dichlorophenol	5.0	nd		nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd
4-Chloroaniline	5.0	nd		nd	nd	nd
Hexachlorobutadiene	1.0	nd	130%	nd	nd	nd
4-Chloro-3-methylphenol	5.0	nd		nd	nd	nd
2-Methylnaphthalene	1.0	nd		nd	nd	nd
1-Methylnaphthalene	1.0	nd		nd	nd	nd
Hexachlorocyclopentadiene	1.0	nd		nd	nd	nd
2,4,6-Trichlorophenol	5.0	nd		nd	nd	nd
2,4,5-Trichlorophenol	5.0	nd		nd	nd	nd
2-Chloronaphthalene	1.0	nd		nd	nd	nd
2-Nitroaniline	5.0	nd		nd	nd	nd
1,4-Dinitrobenzene	5.0	nd		nd	nd	nd
Dimethylphthalate	1.0	nd		nd	nd	nd
Acenaphthylene	0.1	nd		nd	nd	nd
1,3-Dinitrobenzene	5.0	nd		nd	nd	nd
2,6-Dinitrotoluene	1.0	nd		nd	nd	nd
1,2-Dinitrobenzene	1.0	nd		nd	nd	nd
Acenaphthene	0.1	nd	106%	nd	nd	nd
3-Nitroaniline	5.0	nd		nd	nd	nd
Dibenzofuran	1.0	nd		nd	nd	nd
2,4-Dinitrotoluene	1.0	nd		nd	nd	nd
2,3,4,6-Tetrachlorophenol	1.0	nd		nd	nd	nd
2,3,5,6-Tetrachlorophenol	1.0	nd		nd	nd	nd
2,4-Dinitrophenol	5.0	nd		nd	nd	nd

# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
CITY OF OLYMPIA WSDOT PROJECT

Client Project #0415-049-02  
Olympia, Washington

ESN Northwest  
1210 Eastside Street SE Suite 200  
Olympia, WA 98501

(360) 459-4670  
lab@esnnw.com

## Analytical Results

8270, mg/kg		MTH BLK	LCS	MW10-103108-3	MW10-103108-7	MW12-103108-4.5
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/05/08	11/05/08	11/04/08	11/04/08	11/04/08
Date analyzed	Limits	11/05/08	11/05/08	11/05/08	11/05/08	11/05/08
Moisture, %				7%	20%	18%
Fluorene	0.1	nd		nd	nd	nd
4-Chlorophenylphenylether	1.0	nd		nd	nd	nd
Diethylphthalate	1.0	nd		nd	nd	nd
4-Nitroaniline	5.0	nd		nd	nd	nd
4,6-Dinitro-2-methylphenol	5.0	nd		nd	nd	nd
N-nitrosodiphenylamine	1.0	nd	131%	nd	nd	nd
Azobenzene	1.0	nd		nd	nd	nd
4-Bromophenylphenylether	1.0	nd		nd	nd	nd
Hexachlorobenzene	1.0	nd		nd	nd	nd
Pentachlorophenol	5.0	nd		nd	nd	nd
Phenanthrene	0.1	nd		nd	nd	nd
Anthracene	0.1	nd		nd	nd	nd
Carbazole	1.0	nd		nd	nd	nd
Di-n-butylphthalate	1.0	nd		nd	nd	nd
Fluoranthene	0.1	nd	119%	nd	nd	nd
Pyrene	0.1	nd		nd	nd	nd
Butylbenzylphthalate	1.0	nd		nd	nd	nd
Bis(2-ethylhexyl) adipate	1.0	nd		nd	nd	nd
Benzo(a)anthracene	0.1	nd		nd	nd	nd
Chrysene	0.1	nd		nd	nd	nd
Bis (2-ethylhexyl) phthalate	1.0	nd		nd	nd	nd
Di-n-octyl phthalate	1.0	nd	69%	nd	nd	nd
Benzo(b)fluoranthene	0.1	nd		nd	nd	nd
Benzo(k)fluoranthene	0.1	nd		nd	nd	nd
Benzo(a)pyrene	0.1	nd	67%	nd	nd	nd
Dibenzo(a,h)anthracene	0.1	nd		nd	nd	nd
Benzo(ghi)perylene	0.1	nd		nd	nd	nd
Indeno(1,2,3-cd)pyrene	0.1	nd		nd	nd	nd

## Surrogate recoveries

2-Fluorophenol	91%	111%	108%	116%	103%
Phenol-d6	103%	116%	112%	112%	106%
Nitrobenzene-d5	112%	119%	83%	118%	108%
2-Fluorobiphenyl	85%	127%	70%	117%	94%
2,4,6-Tribromophenol	43%	42%	36%	39%	34%
4-Terphenyl-d14	71%	115%	73%	87%	70%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

### Acceptable Recovery limits:

2-Fluorophenol: 10-135 %  
Phenol - d5: 10-135 %  
2,4,6- tribromophenol: 29-159%  
Nitrobenzene - d5: 20-120 %  
2-Fluorobiphenyl: 50-150%  
p-Terphenyl-d14: 50-150%  
Acceptable RPD limit: 35%

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## Analytical Results

<b>8270, mg/kg</b>		<b>MW12-103108-8</b>	<b>MW16-103108-5</b>	<b>MW16-103108-10</b>	<b>MW15-103108-3</b>
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/04/08	11/04/08	11/04/08	11/04/08
Date analyzed	Limits	11/05/08	11/05/08	11/05/08	11/05/08
Moisture, %		18%	15%	28%	8%
Pyridine	1.0	nd	nd	nd	nd
Aniline	1.0	nd	nd	nd	nd
Phenol	1.0	nd	nd	nd	nd
2-Chlorophenol	1.0	nd	nd	nd	nd
Bis (2-chloroethyl) ether	1.0	nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd	nd	nd	nd
Benzyl alcohol	1.0	nd	nd	nd	nd
2-Methylphenol (o-cresol)	1.0	nd	nd	nd	nd
Bis (2-chloroisopropyl) ether	5.0	nd	nd	nd	nd
3,4-Methylphenol (m,p-cresol)	1.0	nd	nd	nd	nd
Hexachlorethane	1.0	nd	nd	nd	nd
N-Nitroso-di-n-propylamine	1.0	nd	nd	nd	nd
Nitrobenzene	1.0	nd	nd	nd	nd
Isophorone	1.0	nd	nd	nd	nd
2-Nitrophenol	5.0	nd	nd	nd	nd
4-Nitrophenol	5.0	nd	nd	nd	nd
2,4-Dimethylphenol	1.0	nd	nd	nd	nd
Bis (2-chloroethoxy) methane	1.0	nd	nd	nd	nd
2,4-Dichlorophenol	5.0	nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd	nd	nd	nd
Naphthalene	1.0	nd	nd	nd	nd
4-Chloroaniline	5.0	nd	nd	nd	nd
Hexachlorobutadiene	1.0	nd	nd	nd	nd
4-Chloro-3-methylphenol	5.0	nd	nd	nd	nd
2-Methylnaphthalene	1.0	nd	nd	nd	nd
1-Methylnaphthalene	1.0	nd	nd	nd	nd
Hexachlorocyclopentadiene	1.0	nd	nd	nd	nd
2,4,6-Trichlorophenol	5.0	nd	nd	nd	nd
2,4,5-Trichlorophenol	5.0	nd	nd	nd	nd
2-Chloronaphthalene	1.0	nd	nd	nd	nd
2-Nitroaniline	5.0	nd	nd	nd	nd
1,4-Dinitrobenzene	5.0	nd	nd	nd	nd
Dimethylphthalate	1.0	nd	nd	nd	nd
Acenaphthylene	0.1	nd	nd	nd	nd
1,3-Dinitrobenzene	5.0	nd	nd	nd	nd
2,6-Dinitrotoluene	1.0	nd	nd	nd	nd
1,2-Dinitrobenzene	1.0	nd	nd	nd	nd
Acenaphthene	0.1	nd	nd	nd	nd
3-Nitroaniline	5.0	nd	nd	nd	nd
Dibenzofuran	1.0	nd	nd	nd	nd
2,4-Dinitrotoluene	1.0	nd	nd	nd	nd
2,3,4,6-Tetrachlorophenol	1.0	nd	nd	nd	nd
2,3,5,6-Tetrachlorophenol	1.0	nd	nd	nd	nd
2,4-Dinitrophenol	5.0	nd	nd	nd	nd

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## Analytical Results

8270, mg/kg		MW12-103108-8	MW16-103108-5	MW16-103108-10	MW15-103108-3
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/04/08	11/04/08	11/04/08	11/04/08
Date analyzed	Limits	11/05/08	11/05/08	11/05/08	11/05/08
Moisture, %		18%	15%	28%	8%

Fluorene	0.1	nd	nd	nd	nd
4-Chlorophenylphenylether	1.0	nd	nd	nd	nd
Diethylphthalate	1.0	nd	nd	nd	nd
4-Nitroaniline	5.0	nd	nd	nd	nd
4,6-Dinitro-2-methylphenol	5.0	nd	nd	nd	nd
N-nitrosodiphenylamine	1.0	nd	nd	nd	nd
Azobenzene	1.0	nd	nd	nd	nd
4-Bromophenylphenylether	1.0	nd	nd	nd	nd
Hexachlorobenzene	1.0	nd	nd	nd	nd
Pentachlorophenol	5.0	nd	nd	nd	nd
Phenanthrene	0.1	nd	nd	nd	nd
Anthracene	0.1	nd	nd	nd	nd
Carbazole	1.0	nd	nd	nd	nd
Di-n-butylphthalate	1.0	nd	nd	nd	nd
Fluoranthene	0.1	nd	nd	nd	nd
Pyrene	0.1	nd	nd	nd	nd
Butylbenzylphthalate	1.0	nd	nd	nd	nd
Bis(2-ethylhexyl) adipate	1.0	nd	nd	nd	nd
Benzo(a)anthracene	0.1	nd	nd	nd	nd
Chrysene	0.1	nd	nd	nd	nd
Bis (2-ethylhexyl) phthalate	1.0	nd	nd	nd	nd
Di-n-octyl phthalate	1.0	nd	nd	nd	nd
Benzo(b)fluoranthene	0.1	nd	nd	nd	nd
Benzo(k)fluoranthene	0.1	nd	nd	nd	nd
Benzo(a)pyrene	0.1	nd	nd	nd	nd
Dibenzo(a,h)anthracene	0.1	nd	nd	nd	nd
Benzo(ghi)perylene	0.1	nd	nd	nd	nd
Indeno(1,2,3-cd)pyrene	0.1	nd	nd	nd	nd

## Surrogate recoveries

2-Fluorophenol	115%	105%	119%	91%
Phenol-d6	116%	132%	113%	81%
Nitrobenzene-d5	114%	121%	121%	121%
2-Fluorobiphenyl	119%	127%	106%	108%
2,4,6-Tribromophenol	38%	34%	34%	30%
4-Terphenyl-d14	92%	100%	76%	62%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

### Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6- tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%



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## Analytical Results

8270, mg/kg	MW15-103108-5	MW14-103108-4	MW14-103108-8	MS	MSD	RPD	
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	11/04/08	11/04/08	11/04/08	11/04/08	11/04/08	
Date analyzed	Limits	11/05/08	11/05/08	11/05/08	11/05/08	11/05/08	
Moisture, %		15%	23%	13%			
Pyridine	1.0	nd	nd	nd			
Aniline	1.0	nd	nd	nd			
Phenol	1.0	nd	nd	nd	87%	91%	4%
2-Chlorophenol	1.0	nd	nd	nd	107%	113%	5%
Bis (2-chloroethyl) ether	1.0	nd	nd	nd			
1,3-Dichlorobenzene	1.0	nd	nd	nd			
1,4-Dichlorobenzene	1.0	nd	nd	nd	102%	102%	0%
1,2-Dichlorobenzene	1.0	nd	nd	nd			
Benzyl alcohol	1.0	nd	nd	nd			
2-Methylphenol (o-cresol)	1.0	nd	nd	nd			
Bis (2-chloroisopropyl) ether	5.0	nd	nd	nd			
3,4-Methylphenol (m,p-cresol)	1.0	nd	nd	nd			
Hexachlorethane	1.0	nd	nd	nd			
N-Nitroso-di-n-propylamine	1.0	nd	nd	nd	116%	115%	1%
Nitrobenzene	1.0	nd	nd	nd			
Isophorone	1.0	nd	nd	nd			
2-Nitrophenol	5.0	nd	nd	nd			
4-Nitrophenol	5.0	nd	nd	nd			
2,4-Dimethylphenol	1.0	nd	nd	nd	89%	94%	5%
Bis (2-chloroethoxy) methane	1.0	nd	nd	nd			
2,4-Dichlorophenol	5.0	nd	nd	nd			
1,2,4-Trichlorobenzene	1.0	nd	nd	nd	119%	119%	0%
Naphthalene	1.0	nd	nd	nd			
4-Chloroaniline	5.0	nd	nd	nd			
Hexachlorobutadiene	1.0	nd	nd	nd			
4-Chloro-3-methylphenol	5.0	nd	nd	nd	68%	72%	6%
2-Methylnaphthalene	1.0	nd	nd	nd			
1-Methylnaphthalene	1.0	nd	nd	nd			
Hexachlorocyclopentadiene	1.0	nd	nd	nd			
2,4,6-Trichlorophenol	5.0	nd	nd	nd			
2,4,5-Trichlorophenol	5.0	nd	nd	nd			
2-Chloronaphthalene	1.0	nd	nd	nd			
2-Nitroaniline	5.0	nd	nd	nd			
1,4-Dinitrobenzene	5.0	nd	nd	nd			
Dimethylphthalate	1.0	nd	nd	nd			
Acenaphthylene	0.1	nd	nd	nd			
1,3-Dinitrobenzene	5.0	nd	nd	nd			
2,6-Dinitrotoluene	1.0	nd	nd	nd			
1,2-Dinitrobenzene	1.0	nd	nd	nd			
Acenaphthene	0.1	nd	nd	nd	96%	98%	2%
3-Nitroaniline	5.0	nd	nd	nd			
Dibenzofuran	1.0	nd	nd	nd			
2,4-Dinitrotoluene	1.0	nd	nd	nd	84%	86%	2%
2,3,4,6-Tetrachlorophenol	1.0	nd	nd	nd			
2,3,5,6-Tetrachlorophenol	1.0	nd	nd	nd			
2,4-Dinitrophenol	5.0	nd	nd	nd			
Fluorene	0.1	nd	nd	nd			
4-Chlorophenylphenylether	1.0	nd	nd	nd			
Diethylphthalate	1.0	nd	nd	nd			
4-Nitroaniline	5.0	nd	nd	nd			

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Analytical Results

8270, mg/kg		MW15-103108-5	MW14-103108-4	MW14-103108-8	MS	MSD	RPD
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	11/04/08	11/04/08	11/04/08	11/04/08	11/04/08	
Date analyzed	Limits	11/05/08	11/05/08	11/05/08	11/05/08	11/05/08	
Moisture, %		15%	23%	13%			
4,6-Dinitro-2-methylphenol	5.0	nd	nd	nd			
N-nitrosodiphenylamine	1.0	nd	nd	nd			
Azobenzene	1.0	nd	nd	nd			
4-Bromophenylphenylether	1.0	nd	nd	nd			
Hexachlorobenzene	1.0	nd	nd	nd			
Pentachlorophenol	5.0	nd	nd	nd			
Phenanthrene	0.1	nd	nd	nd			
Anthracene	0.1	nd	nd	nd			
Carbazole	1.0	nd	nd	nd			
Di-n-butylphthalate	1.0	nd	nd	nd			
Fluoranthene	0.1	nd	nd	nd			
Pyrene	0.1	nd	nd	nd	75%	76%	1%
Butylbenzylphthalate	1.0	nd	nd	nd			
Bis(2-ethylhexyl) adipate	1.0	nd	nd	nd			
Benzo(a)anthracene	0.1	nd	nd	nd			
Chrysene	0.1	nd	nd	nd			
Bis (2-ethylhexyl) phthalate	1.0	nd	nd	nd			
Di-n-octyl phthalate	1.0	nd	nd	nd			
Benzo(b)fluoranthene	0.1	nd	nd	nd			
Benzo(k)fluoranthene	0.1	nd	nd	nd			
Benzo(a)pyrene	0.1	nd	nd	nd			
Dibenzo(a,h)anthracene	0.1	nd	nd	nd			
Benzo(ghi)perylene	0.1	nd	nd	nd			
Indeno(1,2,3-cd)pyrene	0.1	nd	nd	nd			

Surrogate recoveries

2-Fluorophenol	115%	120%	102%	86%	86%
Phenol-d6	116%	122%	126%	92%	91%
Nitrobenzene-d5	123%	121%	120%	90%	88%
2-Fluorobiphenyl	131%	125%	106%	86%	84%
2,4,6-Tribromophenol	43%	41%	37%	47%	49%
4-Terphenyl-d14	86%	85%	76%	70%	68%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

Acceptable Recovery limits:

- 2-Fluorophenol: 10-135 %
- Phenol - d5: 10-135 %
- 2,4,6-tribromophenol: 29-159%
- Nitrobenzene - d5: 20-120 %
- 2-Fluorobiphenyl: 50-150%
- p-Terphenyl-d14: 50-150%
- Acceptable RPD limit: 35%

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## Analytical Results

8270, µg/L	MTH BLK	LCS	PP20-103008-W	PP19-103008-W
Matrix	Water	Water	Water	Water
Date extracted	Reporting	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08
Pyridine	2.0	nd		nd
Aniline	2.0	nd		nd
Phenol	2.0	nd		nd
2-Chlorophenol	2.0	nd		nd
Bis (2-chloroethyl) ether	2.0	nd		nd
1,3-Dichlorobenzene	2.0	nd		nd
1,4-Dichlorobenzene	2.0	nd	119%	nd
1,2-Dichlorobenzene	2.0	nd		nd
Benzyl alcohol	2.0	nd		nd
2-Methylphenol (o-cresol)	2.0	nd		nd
Bis (2-chloroisopropyl) ether	10.0	nd		nd
3,4-Methylphenol (m,p-cresol)	2.0	nd		nd
Hexachloroethane	2.0	nd		nd
N-Nitroso-di-n-propylamine	2.0	nd		nd
Nitrobenzene	2.0	nd		nd
Isophorone	2.0	nd		nd
2-Nitrophenol	10.0	nd		nd
4-Nitrophenol	10.0	nd		nd
2,4-Dimethylphenol	2.0	nd		nd
Bis (2-chloroethoxy) methane	2.0	nd		nd
2,4-Dichlorophenol	10.0	nd		nd
1,2,4-Trichlorobenzene	2.0	nd		nd
Naphthalene	2.0	nd		nd
4-Chloroaniline	10.0	nd		nd
Hexachlorobutadiene	2.0	nd	119%	nd
4-Chloro-3-methylphenol	10.0	nd		nd
2-Methylnaphthalene	2.0	nd		nd
1-Methylnaphthalene	2.0	nd		nd
Hexachlorocyclopentadiene	2.0	nd		nd
2,4,6-Trichlorophenol	10.0	nd		nd
2,4,5-Trichlorophenol	10.0	nd		nd
2-Chloronaphthalene	2.0	nd		nd
2-Nitroaniline	10.0	nd		nd
1,4-Dinitrobenzene	10.0	nd		nd
Dimethylphthalate	2.0	nd		nd
Acenaphthylene	2.0	nd		nd
1,3-Dinitrobenzene	10.0	nd		nd
2,6-Dinitrotoluene	2.0	nd		nd
1,2-Dinitrobenzene	2.0	nd		nd
Acenaphthene	2.0	nd	111%	nd
3-Nitroaniline	10.0	nd		nd
Dibenzofuran	2.0	nd		nd
2,4-Dinitrotoluene	2.0	nd		nd
2,3,4,6-Tetrachlorophenol	2.0	nd		nd
2,3,5,6-Tetrachlorophenol	2.0	nd		nd
2,4-Dinitrophenol	10.0	nd		nd

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Analytical Results

8270, µg/L	MTH BLK	LCS	PP20-103008-W	PP19-103008-W
Matrix	Water	Water	Water	Water
Date extracted	Reporting	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08
Fluorene	2.0	nd		nd
4-Chlorophenylphenylether	2.0	nd		nd
Diethylphthalate	2.0	nd		nd
4-Nitroaniline	10.0	nd		nd
4,6-Dinitro-2-methylphenol	10.0	nd		nd
N-nitrosodiphenylamine	2.0	nd	133%	nd
Azobenzene	2.0	nd		nd
4-Bromophenylphenylether	2.0	nd		nd
Hexachlorobenzene	2.0	nd		nd
Pentachlorophenol	10.0	nd		nd
Phenanthrene	2.0	nd		nd
Anthracene	2.0	nd		nd
Carbazole	2.0	nd		nd
Di-n-butylphthalate	2.0	nd		nd
Fluoranthene	2.0	nd	120%	nd
Pyrene	2.0	nd		nd
Butylbenzylphthalate	2.0	nd		nd
Bis(2-ethylhexyl) adipate	2.0	nd		nd
Benzo(a)anthracene	2.0	nd		nd
Chrysene	2.0	nd		nd
Bis (2-ethylhexyl) phthalate	2.0	nd		nd
Di-n-octyl phthalate	2.0	nd	73%	nd
Benzo(b)fluoranthene	2.0	nd		nd
Benzo(k)fluoranthene	2.0	nd		nd
Benzo(a)pyrene	2.0	nd	71%	nd
Dibenzo(a,h)anthracene	2.0	nd		nd
Benzo(ghi)perylene	2.0	nd		nd
Indeno(1,2,3-cd)pyrene	2.0	nd		nd

Surrogate recoveries

2-Fluorophenol	91%	108%	117%	132%
Phenol-d6	101%	114%	117%	112%
Nitrobenzene-d5	109%	131%	112%	114%
2-Fluorobiphenyl	87%	131%	106%	97%
2,4,6-Tribromophenol	41%	44%	60%	62%
4-Terphenyl-d14	72%	119%	81%	70%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

Acceptable Recovery limits:

- 2-Fluorophenol: 10-135 %
- Phenol - d5: 10-135 %
- 2,4,6- tribromophenol: 29-159%
- Nitrobenzene - d5: 20-120 %
- 2-Fluorobiphenyl: 50-150%
- p-Terphenyl-d14: 50-150%
- Acceptable RPD limit: 35%

**ESN NORTHWEST CHEMISTRY LABORATORY**

GeoEngineers  
CITY OF OLYMPIA - WSDOT PROJECT

Client Project #0415-049-02  
Olympia, Washington

ESN Northwest  
1210 Eastside Street SE Suite 200  
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lab@esnnw.com

Analytical Results

8270, µg/L	PP18-103008-W	MW1-103008-W	MW2-103008-W	MW3-103008-W
Matrix	Water	Water	Water	Water
Date extracted	Reporting	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08
Pyridine	2.0	nd	nd	nd
Aniline	2.0	nd	nd	nd
Phenol	2.0	nd	nd	nd
2-Chlorophenol	2.0	nd	nd	nd
Bis (2-chloroethyl) ether	2.0	nd	nd	nd
1,3-Dichlorobenzene	2.0	nd	nd	nd
1,4-Dichlorobenzene	2.0	nd	nd	nd
1,2-Dichlorobenzene	2.0	nd	nd	nd
Benzyl alcohol	2.0	nd	nd	nd
2-Methylphenol (o-cresol)	2.0	nd	nd	nd
Bis (2-chloroisopropyl) ether	10.0	nd	nd	nd
3,4-Methylphenol (m,p-cresol)	2.0	nd	nd	nd
Hexachlorethane	2.0	nd	nd	nd
N-Nitroso-di-n-propylamine	2.0	nd	nd	nd
Nitrobenzene	2.0	nd	nd	nd
Isophorone	2.0	nd	nd	nd
2-Nitrophenol	10.0	nd	nd	nd
4-Nitrophenol	10.0	nd	nd	nd
2,4-Dimethylphenol	2.0	nd	nd	nd
Bis (2-chloroethoxy) methane	2.0	nd	nd	nd
2,4-Dichlorophenol	10.0	nd	nd	nd
1,2,4-Trichlorobenzene	2.0	nd	nd	nd
Naphthalene	2.0	nd	nd	nd
4-Chloroaniline	10.0	nd	nd	nd
Hexachlorobutadiene	2.0	nd	nd	nd
4-Chloro-3-methylphenol	10.0	nd	nd	nd
2-Methylnaphthalene	2.0	nd	nd	nd
1-Methylnaphthalene	2.0	nd	nd	nd
Hexachlorocyclopentadiene	2.0	nd	nd	nd
2,4,6-Trichlorophenol	10.0	nd	nd	nd
2,4,5-Trichlorophenol	10.0	nd	nd	nd
2-Chloronaphthalene	2.0	nd	nd	nd
2-Nitroaniline	10.0	nd	nd	nd
1,4-Dinitrobenzene	10.0	nd	nd	nd
Dimethylphthalate	2.0	nd	nd	nd
Acenaphthylene	2.0	nd	nd	nd
1,3-Dinitrobenzene	10.0	nd	nd	nd
2,6-Dinitrotoluene	2.0	nd	nd	nd
1,2-Dinitrobenzene	2.0	nd	nd	nd
Acenaphthene	2.0	nd	nd	nd
3-Nitroaniline	10.0	nd	nd	nd
Dibenzofuran	2.0	nd	nd	nd
2,4-Dinitrotoluene	2.0	nd	nd	nd
2,3,4,6-Tetrachlorophenol	2.0	nd	nd	nd
2,3,5,6-Tetrachlorophenol	2.0	nd	nd	nd
2,4-Dinitrophenol	10.0	nd	nd	nd

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## Analytical Results

8270, µg/L	PP18-103008-W	MW1-103008-W	MW2-103008-W	MW3-103008-W
Matrix	Water	Water	Water	Water
Date extracted	Reporting	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08
Fluorene	2.0	nd	nd	nd
4-Chlorophenylphenylether	2.0	nd	nd	nd
Diethylphthalate	2.0	nd	nd	nd
4-Nitroaniline	10.0	nd	nd	nd
4,6-Dinitro-2-methylphenol	10.0	nd	nd	nd
N-nitrosodiphenylamine	2.0	nd	nd	nd
Azobenzene	2.0	nd	nd	nd
4-Bromophenylphenylether	2.0	nd	nd	nd
Hexachlorobenzene	2.0	nd	nd	nd
Pentachlorophenol	10.0	nd	nd	nd
Phenanthrene	2.0	nd	nd	nd
Anthracene	2.0	nd	nd	nd
Carbazole	2.0	nd	nd	nd
Di-n-butylphthalate	2.0	nd	nd	nd
Fluoranthene	2.0	nd	nd	nd
Pyrene	2.0	nd	nd	nd
Butylbenzylphthalate	2.0	nd	nd	nd
Bis(2-ethylhexyl) adipate	2.0	nd	nd	nd
Benzo(a)anthracene	2.0	nd	nd	nd
Chrysene	2.0	nd	nd	nd
Bis (2-ethylhexyl) phthalate	2.0	nd	nd	nd
Di-n-octyl phthalate	2.0	nd	nd	nd
Benzo(b)fluoranthene	2.0	nd	nd	nd
Benzo(k)fluoranthene	2.0	nd	nd	nd
Benzo(a)pyrene	2.0	nd	nd	nd
Dibenzo(a,h)anthracene	2.0	nd	nd	nd
Benzo(ghi)perylene	2.0	nd	nd	nd
Indeno(1,2,3-cd)pyrene	2.0	nd	nd	nd

## Surrogate recoveries

2-Fluorophenol	111%	112%	122%	120%
Phenol-d6	118%	119%	120%	115%
Nitrobenzene-d5	111%	99%	108%	59%
2-Fluorobiphenyl	94%	95%	101%	98%
2,4,6-Tribromophenol	63%	64%	59%	59%
4-Terphenyl-d14	69%	83%	76%	73%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

### Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6-tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%

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Analytical Results

8270, µg/L	MW4-103008-W	MS	MSD	RPD	
Matrix	Water	Water	Water	Water	
Date extracted	Reporting	11/03/08	11/03/08	11/03/08	
Date analyzed	Limits	11/03/08	11/03/08	11/03/08	
Pyridine	2.0	nd			
Aniline	2.0	nd			
Phenol	2.0	nd	87%	91%	4%
2-Chlorophenol	2.0	nd	107%	113%	5%
Bis (2-chloroethyl) ether	2.0	nd			
1,3-Dichlorobenzene	2.0	nd			
1,4-Dichlorobenzene	2.0	nd	102%	102%	0%
1,2-Dichlorobenzene	2.0	nd			
Benzyl alcohol	2.0	nd			
2-Methylphenol (o-cresol)	2.0	nd			
Bis (2-chloroisopropyl) ether	10.0	nd			
3,4-Methylphenol (m,p-cresol)	2.0	nd			
Hexachlorethane	2.0	nd			
N-Nitroso-di-n-propylamine	2.0	nd	116%	115%	1%
Nitrobenzene	2.0	nd			
Isophorone	2.0	nd			
2-Nitrophenol	10.0	nd			
4-Nitrophenol	10.0	nd			
2,4-Dimethylphenol	2.0	nd	89%	94%	5%
Bis (2-chloroethoxy) methane	2.0	nd			
2,4-Dichlorophenol	10.0	nd			
1,2,4-Trichlorobenzene	2.0	nd	119%	119%	0%
Naphthalene	2.0	nd			
4-Chloroaniline	10.0	nd			
Hexachlorobutadiene	2.0	nd			
4-Chloro-3-methylphenol	10.0	nd	68%	72%	6%
2-Methylnaphthalene	2.0	nd			
1-Methylnaphthalene	2.0	nd			
Hexachlorocyclopentadiene	2.0	nd			
2,4,6-Trichlorophenol	10.0	nd			
2,4,5-Trichlorophenol	10.0	nd			
2-Chloronaphthalene	2.0	nd			
2-Nitroaniline	10.0	nd			
1,4-Dinitrobenzene	10.0	nd			
Dimethylphthalate	2.0	nd			
Acenaphthylene	2.0	nd			
1,3-Dinitrobenzene	10.0	nd			
2,6-Dinitrotoluene	2.0	nd			
1,2-Dinitrobenzene	2.0	nd			
Acenaphthene	2.0	nd	96%	98%	2%
3-Nitroaniline	10.0	nd			
Dibenzofuran	2.0	nd			
2,4-Dinitrotoluene	2.0	nd	84%	86%	2%
2,3,4,6-Tetrachlorophenol	2.0	nd			
2,3,5,6-Tetrachlorophenol	2.0	nd			
2,4-Dinitrophenol	10.0	nd			

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Analytical Results

8270, µg/L	MW4-103008-W	MS	MSD	RPD
Matrix	Water	Water	Water	Water
Date extracted	Reporting	11/03/08	11/03/08	11/03/08
Date analyzed	Limits	11/03/08	11/03/08	11/03/08
Fluorene	2.0	nd		
4-Chlorophenylphenylether	2.0	nd		
Diethylphthalate	2.0	nd		
4-Nitroaniline	10.0	nd		
4,6-Dinitro-2-methylphenol	10.0	nd		
N-nitrosodiphenylamine	2.0	nd		
Azobenzene	2.0	nd		
4-Bromophenylphenylether	2.0	nd		
Hexachlorobenzene	2.0	nd		
Pentachlorophenol	10.0	nd		
Phenanthrene	2.0	nd		
Anthracene	2.0	nd		
Carbazole	2.0	nd		
Di-n-butylphthalate	2.0	nd		
Fluoranthene	2.0	nd		
Pyrene	2.0	nd	75%	76% 1%
Butylbenzylphthalate	2.0	nd		
Bis(2-ethylhexyl) adipate	2.0	nd		
Benzo(a)anthracene	2.0	nd		
Chrysene	2.0	nd		
Bis (2-ethylhexyl) phthalate	2.0	nd		
Di-n-octyl phthalate	2.0	nd		
Benzo(b)fluoranthene	2.0	nd		
Benzo(k)fluoranthene	2.0	nd		
Benzo(a)pyrene	2.0	nd		
Dibenzo(a,h)anthracene	2.0	nd		
Benzo(ghi)perylene	2.0	nd		
Indeno(1,2,3-cd)pyrene	2.0	nd		

Surrogate recoveries

2-Fluorophenol	111%	86%	86%
Phenol-d6	123%	92%	91%
Nitrobenzene-d5	109%	90%	88%
2-Fluorobiphenyl	88%	86%	84%
2,4,6-Tribromophenol	57%	47%	49%
4-Terphenyl-d14	51%	70%	68%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

Acceptable Recovery limits:

2-Fluorophenol: 10-135 %  
Phenol - d5: 10-135 %  
2,4,6-tribromophenol: 29-159%  
Nitrobenzene - d5: 20-120 %  
2-Fluorobiphenyl: 50-150%  
p-Terphenyl-d14: 50-150%  
Acceptable RPD limit: 35%



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## Analytical Results

8270, µg/L		MTH BLK	LCS	MW5-103108-W	MW6-103108-W	MW7-103108-W
Matrix	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	11/05/08	11/05/08	11/04/08	11/04/08	11/04/08
Date analyzed	Limits	11/05/08	11/05/08	11/05/08	11/05/08	11/05/08
Pyridine	2.0	nd		nd	nd	nd
Aniline	2.0	nd		nd	nd	nd
Phenol	2.0	nd		nd	nd	nd
2-Chlorophenol	2.0	nd		nd	nd	nd
Bis (2-chloroethyl) ether	2.0	nd		nd	nd	nd
1,3-Dichlorobenzene	2.0	nd		nd	nd	nd
1,4-Dichlorobenzene	2.0	nd	125%	nd	nd	nd
1,2-Dichlorobenzene	2.0	nd		nd	nd	nd
Benzyl alcohol	2.0	nd		nd	nd	nd
2-Methylphenol (o-cresol)	2.0	nd		nd	nd	nd
Bis (2-chloroisopropyl) ether	10.0	nd		nd	nd	nd
3,4-Methylphenol (m,p-cresol)	2.0	nd		nd	nd	nd
Hexachloroethane	2.0	nd		nd	nd	nd
N-Nitroso-di-n-propylamine	2.0	nd		nd	nd	nd
Nitrobenzene	2.0	nd		nd	nd	nd
Isophorone	2.0	nd		nd	nd	nd
2-Nitrophenol	10.0	nd		nd	nd	nd
4-Nitrophenol	10.0	nd		nd	nd	nd
2,4-Dimethylphenol	2.0	nd		nd	nd	nd
Bis (2-chloroethoxy) methane	2.0	nd		nd	nd	nd
2,4-Dichlorophenol	10.0	nd		nd	nd	nd
1,2,4-Trichlorobenzene	2.0	nd		nd	nd	nd
Naphthalene	2.0	nd		nd	nd	nd
4-Chloroaniline	10.0	nd		nd	nd	nd
Hexachlorobutadiene	2.0	nd	130%	nd	nd	nd
4-Chloro-3-methylphenol	10.0	nd		nd	nd	nd
2-Methylnaphthalene	2.0	nd		nd	nd	nd
1-Methylnaphthalene	2.0	nd		nd	nd	nd
Hexachlorocyclopentadiene	2.0	nd		nd	nd	nd
2,4,6-Trichlorophenol	10.0	nd		nd	nd	nd
2,4,5-Trichlorophenol	10.0	nd		nd	nd	nd
2-Chloronaphthalene	2.0	nd		nd	nd	nd
2-Nitroaniline	10.0	nd		nd	nd	nd
1,4-Dinitrobenzene	10.0	nd		nd	nd	nd
Dimethylphthalate	2.0	nd		nd	nd	nd
Acenaphthylene	2.0	nd		nd	nd	nd
1,3-Dinitrobenzene	10.0	nd		nd	nd	nd
2,6-Dinitrotoluene	2.0	nd		nd	nd	nd
1,2-Dinitrobenzene	2.0	nd		nd	nd	nd
Acenaphthene	2.0	nd	106%	nd	nd	nd
3-Nitroaniline	10.0	nd		nd	nd	nd
Dibenzofuran	2.0	nd		nd	nd	nd
2,4-Dinitrotoluene	2.0	nd		nd	nd	nd
2,3,4,6-Tetrachlorophenol	2.0	nd		nd	nd	nd
2,3,5,6-Tetrachlorophenol	2.0	nd		nd	nd	nd
2,4-Dinitrophenol	10.0	nd		nd	nd	nd
Fluorene	2.0	nd		nd	nd	nd

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## Analytical Results

8270, µg/L	MTH BLK	LCS	MW5-103108-W	MW6-103108-W	MW7-103108-W
Matrix	Water	Water	Water	Water	Water
Date extracted	Reporting	11/05/08	11/05/08	11/04/08	11/04/08
Date analyzed	Limits	11/05/08	11/05/08	11/05/08	11/05/08
4-Chlorophenylphenylether	2.0	nd		nd	nd
Diethylphthalate	2.0	nd		nd	nd
4-Nitroaniline	10.0	nd		nd	nd
4,6-Dinitro-2-methylphenol	10.0	nd		nd	nd
N-nitrosodiphenylamine	2.0	nd	131%	nd	nd
Azobenzene	2.0	nd		nd	nd
4-Bromophenylphenylether	2.0	nd		nd	nd
Hexachlorobenzene	2.0	nd		nd	nd
Pentachlorophenol	10.0	nd		nd	nd
Phenanthrene	2.0	nd		nd	nd
Anthracene	2.0	nd		nd	nd
Carbazole	2.0	nd		nd	nd
Di-n-butylphthalate	2.0	nd		nd	nd
Fluoranthene	2.0	nd	119%	nd	nd
Pyrene	2.0	nd		nd	nd
Butylbenzylphthalate	2.0	nd		nd	nd
Bis(2-ethylhexyl) adipate	2.0	nd		nd	nd
Benzo(a)anthracene	2.0	nd		nd	nd
Chrysene	2.0	nd		nd	nd
Bis (2-ethylhexyl) phthalate	2.0	nd		nd	nd
Di-n-octyl phthalate	2.0	nd	69%	nd	nd
Benzo(b)fluoranthene	2.0	nd		nd	nd
Benzo(k)fluoranthene	2.0	nd		nd	nd
Benzo(a)pyrene	2.0	nd	67%	nd	nd
Dibenzo(a,h)anthracene	2.0	nd		nd	nd
Benzo(ghi)perylene	2.0	nd		nd	nd
Indeno(1,2,3-cd)pyrene	2.0	nd		nd	nd

## Surrogate recoveries

2-Fluorophenol	91%	111%	99%	124%	133%
Phenol-d6	103%	116%	103%	120%	111%
Nitrobenzene-d5	112%	119%	108%	102%	108%
2-Fluorobiphenyl	85%	127%	106%	101%	115%
2,4,6-Tribromophenol	43%	42%	42%	56%	58%
4-Terphenyl-d14	71%	115%	85%	78%	91%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

### Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6-tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%

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## Analytical Results

8270, µg/L	MW8-103108-W	MW9-103108-W	MS	MSD	RPD	
Matrix	Water	Water	Water	Water	Water	
Date extracted	Reporting	11/04/08	11/04/08	11/04/08	11/04/08	
Date analyzed	Limits	11/05/08	11/05/08	11/05/08	11/05/08	
Pyridine	2.0	nd	nd			
Aniline	2.0	nd	nd			
Phenol	2.0	nd	nd	87%	91%	4%
2-Chlorophenol	2.0	nd	nd	107%	113%	5%
Bis (2-chloroethyl) ether	2.0	nd	nd			
1,3-Dichlorobenzene	2.0	nd	nd			
1,4-Dichlorobenzene	2.0	nd	nd	102%	102%	0%
1,2-Dichlorobenzene	2.0	nd	nd			
Benzyl alcohol	2.0	nd	nd			
2-Methylphenol (o-cresol)	2.0	nd	nd			
Bis (2-chloroisopropyl) ether	10.0	nd	nd			
3,4-Methylphenol (m,p-cresol)	2.0	nd	nd			
Hexachlorethane	2.0	nd	nd			
N-Nitroso-di-n-propylamine	2.0	nd	nd	116%	115%	1%
Nitrobenzene	2.0	nd	nd			
Isophorone	2.0	nd	nd			
2-Nitrophenol	10.0	nd	nd			
4-Nitrophenol	10.0	nd	nd			
2,4-Dimethylphenol	2.0	nd	nd	89%	94%	5%
Bis (2-chloroethoxy) methane	2.0	nd	nd			
2,4-Dichlorophenol	10.0	nd	nd			
1,2,4-Trichlorobenzene	2.0	nd	nd	119%	119%	0%
Naphthalene	2.0	nd	nd			
4-Chloroaniline	10.0	nd	nd			
Hexachlorobutadiene	2.0	nd	nd			
4-Chloro-3-methylphenol	10.0	nd	nd	68%	72%	6%
2-Methylnaphthalene	2.0	nd	nd			
1-Methylnaphthalene	2.0	nd	nd			
Hexachlorocyclopentadiene	2.0	nd	nd			
2,4,6-Trichlorophenol	10.0	nd	nd			
2,4,5-Trichlorophenol	10.0	nd	nd			
2-Chloronaphthalene	2.0	nd	nd			
2-Nitroaniline	10.0	nd	nd			
1,4-Dinitrobenzene	10.0	nd	nd			
Dimethylphthalate	2.0	nd	nd			
Acenaphthylene	2.0	nd	nd			
1,3-Dinitrobenzene	10.0	nd	nd			
2,6-Dinitrotoluene	2.0	nd	nd			
1,2-Dinitrobenzene	2.0	nd	nd			
Acenaphthene	2.0	nd	nd	96%	98%	2%
3-Nitroaniline	10.0	nd	nd			
Dibenzofuran	2.0	nd	nd			
2,4-Dinitrotoluene	2.0	nd	nd	84%	86%	2%
2,3,4,6-Tetrachlorophenol	2.0	nd	nd			
2,3,5,6-Tetrachlorophenol	2.0	nd	nd			
2,4-Dinitrophenol	10.0	nd	nd			
Fluorene	2.0	nd	nd			

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## Analytical Results

8270, µg/L	MW8-103108-W	MW9-103108-W	MS	MSD	RPD	
Matrix	Water	Water	Water	Water	Water	
Date extracted	Reporting	11/04/08	11/04/08	11/04/08	11/04/08	
Date analyzed	Limits	11/05/08	11/05/08	11/05/08	11/05/08	
4-Chlorophenylphenylether	2.0	nd	nd			
Diethylphthalate	2.0	nd	nd			
4-Nitroaniline	10.0	nd	nd			
4,6-Dinitro-2-methylphenol	10.0	nd	nd			
N-nitrosodiphenylamine	2.0	nd	nd			
Azobenzene	2.0	nd	nd			
4-Bromophenylphenylether	2.0	nd	nd			
Hexachlorobenzene	2.0	nd	nd			
Pentachlorophenol	10.0	nd	nd			
Phenanthrene	2.0	nd	nd			
Anthracene	2.0	nd	nd			
Carbazole	2.0	nd	nd			
Di-n-butylphthalate	2.0	nd	nd			
Fluoranthene	2.0	nd	nd			
Pyrene	2.0	nd	nd	75%	76%	1%
Butylbenzylphthalate	2.0	nd	nd			
Bis(2-ethylhexyl) adipate	2.0	nd	nd			
Benzo(a)anthracene	2.0	nd	nd			
Chrysene	2.0	nd	nd			
Bis (2-ethylhexyl) phthalate	2.0	nd	nd			
Di-n-octyl phthalate	2.0	nd	nd			
Benzo(b)fluoranthene	2.0	nd	nd			
Benzo(k)fluoranthene	2.0	nd	nd			
Benzo(a)pyrene	2.0	nd	nd			
Dibenzo(a,h)anthracene	2.0	nd	nd			
Benzo(ghi)perylene	2.0	nd	nd			
Indeno(1,2,3-cd)pyrene	2.0	nd	nd			

## Surrogate recoveries

2-Fluorophenol	107%	116%	86%	86%
Phenol-d6	114%	125%	92%	91%
Nitrobenzene-d5	99%	100%	90%	88%
2-Fluorobiphenyl	95%	102%	86%	84%
2,4,6-Tribromophenol	57%	60%	47%	49%
4-Terphenyl-d14	74%	72%	70%	68%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

### Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6-tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%

# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
CITY OF OLYMPIA WSDOT PROJECT

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## Analytical Results

8270, µg/L	MTH BLK	LCS	MW10-110408-W	MW11-110408-W	MW12-110408-W
Matrix	Water	Water	Water	Water	Water
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08
Pyridine	2.0	nd		nd	nd
Aniline	2.0	nd		nd	nd
Phenol	2.0	nd		nd	nd
2-Chlorophenol	2.0	nd		nd	nd
Bis (2-chloroethyl) ether	2.0	nd		nd	nd
1,3-Dichlorobenzene	2.0	nd		nd	nd
1,4-Dichlorobenzene	2.0	nd	125%	nd	nd
1,2-Dichlorobenzene	2.0	nd		nd	nd
Benzyl alcohol	2.0	nd		nd	nd
2-Methylphenol (o-cresol)	2.0	nd		nd	nd
Bis (2-chloroisopropyl) ether	10.0	nd		nd	nd
3,4-Methylphenol (m,p-cresol)	2.0	nd		nd	nd
Hexachlorethane	2.0	nd		nd	nd
N-Nitroso-di-n-propylamine	2.0	nd		nd	nd
Nitrobenzene	2.0	nd		nd	nd
Isophorone	2.0	nd		nd	nd
2-Nitrophenol	10.0	nd		nd	nd
4-Nitrophenol	10.0	nd		nd	nd
2,4-Dimethylphenol	2.0	nd		nd	nd
Bis (2-chloroethoxy) methane	2.0	nd		nd	nd
2,4-Dichlorophenol	10.0	nd		nd	nd
1,2,4-Trichlorobenzene	2.0	nd		nd	nd
Naphthalene	2.0	nd		nd	nd
4-Chloroaniline	10.0	nd		nd	nd
Hexachlorobutadiene	2.0	nd	130%	nd	nd
4-Chloro-3-methylphenol	10.0	nd		nd	nd
2-Methylnaphthalene	2.0	nd		nd	nd
1-Methylnaphthalene	2.0	nd		nd	nd
Hexachlorocyclopentadiene	2.0	nd		nd	nd
2,4,6-Trichlorophenol	10.0	nd		nd	nd
2,4,5-Trichlorophenol	10.0	nd		nd	nd
2-Chloronaphthalene	2.0	nd		nd	nd
2-Nitroaniline	10.0	nd		nd	nd
1,4-Dinitrobenzene	10.0	nd		nd	nd
Dimethylphthalate	2.0	nd		nd	nd
Acenaphthylene	2.0	nd		nd	nd
1,3-Dinitrobenzene	10.0	nd		nd	nd
2,6-Dinitrotoluene	2.0	nd		nd	nd
1,2-Dinitrobenzene	2.0	nd		nd	nd
Acenaphthene	2.0	nd	106%	nd	nd
3-Nitroaniline	10.0	nd		nd	nd
Dibenzofuran	2.0	nd		nd	nd
2,4-Dinitrotoluene	2.0	nd		nd	nd
2,3,4,6-Tetrachlorophenol	2.0	nd		nd	nd
2,3,5,6-Tetrachlorophenol	2.0	nd		nd	nd
2,4-Dinitrophenol	10.0	nd		nd	nd
Fluorene	2.0	nd		nd	nd

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## Analytical Results

8270, µg/L	MTH BLK	LCS	MW10-110408-W	MW11-110408-W	MW12-110408-W	
Matrix	Water	Water	Water	Water	Water	
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
4-Chlorophenylphenylether	2.0	nd		nd	nd	nd
Diethylphthalate	2.0	nd		nd	nd	nd
4-Nitroaniline	10.0	nd		nd	nd	nd
4,6-Dinitro-2-methylphenol	10.0	nd		nd	nd	nd
N-nitrosodiphenylamine	2.0	nd	131%	nd	nd	nd
Azobenzene	2.0	nd		nd	nd	nd
4-Bromophenylphenylether	2.0	nd		nd	nd	nd
Hexachlorobenzene	2.0	nd		nd	nd	nd
Pentachlorophenol	10.0	nd		nd	nd	nd
Phenanthrene	2.0	nd		nd	nd	nd
Anthracene	2.0	nd		nd	nd	nd
Carbazole	2.0	nd		nd	nd	nd
Di-n-butylphthalate	2.0	nd		nd	nd	nd
Fluoranthene	2.0	nd	119%	nd	nd	nd
Pyrene	2.0	nd		nd	nd	nd
Butylbenzylphthalate	2.0	nd		nd	nd	nd
Bis(2-ethylhexyl) adipate	2.0	nd		nd	nd	nd
Benzo(a)anthracene	2.0	nd		nd	nd	nd
Chrysene	2.0	nd		nd	nd	nd
Bis (2-ethylhexyl) phthalate	2.0	nd		nd	nd	nd
Di-n-octyl phthalate	2.0	nd	69%	nd	nd	nd
Benzo(b)fluoranthene	2.0	nd		nd	nd	nd
Benzo(k)fluoranthene	2.0	nd		nd	nd	nd
Benzo(a)pyrene	2.0	nd	67%	nd	nd	nd
Dibenzo(a,h)anthracene	2.0	nd		nd	nd	nd
Benzo(ghi)perylene	2.0	nd		nd	nd	nd
Indeno(1,2,3-cd)pyrene	2.0	nd		nd	nd	nd

## Surrogate recoveries

2-Fluorophenol	91%	111%	118%	127%	113%
Phenol-d6	103%	116%	117%	132%	107%
Nitrobenzene-d5	112%	119%	96%	98%	102%
2-Fluorobiphenyl	85%	127%	91%	94%	99%
2,4,6-Tribromophenol	43%	42%	56%	51%	54%
4-Terphenyl-d14	71%	115%	66%	68%	77%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

### Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6-tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%

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## Analytical Results

8270, µg/L	MW13-110408-W	MS	MSD	RPD	
Matrix	Water	Water	Water	Water	
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	
Pyridine	2.0	nd			
Aniline	2.0	nd			
Phenol	2.0	nd	87%	91%	4%
2-Chlorophenol	2.0	nd	107%	113%	5%
Bis (2-chloroethyl) ether	2.0	nd			
1,3-Dichlorobenzene	2.0	nd			
1,4-Dichlorobenzene	2.0	nd	102%	102%	0%
1,2-Dichlorobenzene	2.0	nd			
Benzyl alcohol	2.0	nd			
2-Methylphenol (o-cresol)	2.0	nd			
Bis (2-chloroisopropyl) ether	10.0	nd			
3,4-Methylphenol (m,p-cresol)	2.0	nd			
Hexachlorethane	2.0	nd			
N-Nitroso-di-n-propylamine	2.0	nd	116%	115%	1%
Nitrobenzene	2.0	nd			
Isophorone	2.0	nd			
2-Nitrophenol	10.0	nd			
4-Nitrophenol	10.0	nd			
2,4-Dimethylphenol	2.0	nd	89%	94%	5%
Bis (2-chloroethoxy) methane	2.0	nd			
2,4-Dichlorophenol	10.0	nd			
1,2,4-Trichlorobenzene	2.0	nd	119%	119%	0%
Naphthalene	2.0	nd			
4-Chloroaniline	10.0	nd			
Hexachlorobutadiene	2.0	nd			
4-Chloro-3-methylphenol	10.0	nd	68%	72%	6%
2-Methylnaphthalene	2.0	nd			
1-Methylnaphthalene	2.0	nd			
Hexachlorocyclopentadiene	2.0	nd			
2,4,6-Trichlorophenol	10.0	nd			
2,4,5-Trichlorophenol	10.0	nd			
2-Chloronaphthalene	2.0	nd			
2-Nitroaniline	10.0	nd			
1,4-Dinitrobenzene	10.0	nd			
Dimethylphthalate	2.0	nd			
Acenaphthylene	2.0	nd			
1,3-Dinitrobenzene	10.0	nd			
2,6-Dinitrotoluene	2.0	nd			
1,2-Dinitrobenzene	2.0	nd			
Acenaphthene	2.0	nd	96%	98%	2%
3-Nitroaniline	10.0	nd			
Dibenzofuran	2.0	nd			
2,4-Dinitrotoluene	2.0	nd	84%	86%	2%
2,3,4,6-Tetrachlorophenol	2.0	nd			
2,3,5,6-Tetrachlorophenol	2.0	nd			
2,4-Dinitrophenol	10.0	nd			
Fluorene	2.0	nd			

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## Analytical Results

8270, µg/L	MW13-110408-W	MS	MSD	RPD	
Matrix	Water	Water	Water	Water	
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	
4-Chlorophenylphenylether	2.0	nd			
Diethylphthalate	2.0	nd			
4-Nitroaniline	10.0	nd			
4,6-Dinitro-2-methylphenol	10.0	nd			
N-nitrosodiphenylamine	2.0	nd			
Azobenzene	2.0	nd			
4-Bromophenylphenylether	2.0	nd			
Hexachlorobenzene	2.0	nd			
Pentachlorophenol	10.0	nd			
Phenanthrene	2.0	nd			
Anthracene	2.0	nd			
Carbazole	2.0	nd			
Di-n-butylphthalate	2.0	nd			
Fluoranthene	2.0	nd			
Pyrene	2.0	nd	75%	76%	1%
Butylbenzylphthalate	2.0	nd			
Bis(2-ethylhexyl) adipate	2.0	nd			
Benzo(a)anthracene	2.0	nd			
Chrysene	2.0	nd			
Bis (2-ethylhexyl) phthalate	2.0	nd			
Di-n-octyl phthalate	2.0	nd			
Benzo(b)fluoranthene	2.0	nd			
Benzo(k)fluoranthene	2.0	nd			
Benzo(a)pyrene	2.0	nd			
Dibenzo(a,h)anthracene	2.0	nd			
Benzo(ghi)perylene	2.0	nd			
Indeno(1,2,3-cd)pyrene	2.0	nd			

## Surrogate recoveries

2-Fluorophenol	132%	86%	86%
Phenol-d6	113%	92%	91%
Nitrobenzene-d5	113%	90%	88%
2-Fluorobiphenyl	103%	86%	84%
2,4,6-Tribromophenol	54%	47%	49%
4-Terphenyl-d14	81%	70%	68%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

### Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6-tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%



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## Analytical Results

8270, µg/L	MTH BLK		LCS	MW14-110608-W	MW15-110608-W	MW16-110608-W
Matrix	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08
Date analyzed	Limits	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08
Pyridine	2.0	nd		nd	nd	nd
Aniline	2.0	nd		nd	nd	nd
Phenol	2.0	nd		nd	nd	nd
2-Chlorophenol	2.0	nd		nd	nd	nd
Bis (2-chloroethyl) ether	2.0	nd		nd	nd	nd
1,3-Dichlorobenzene	2.0	nd		nd	nd	nd
1,4-Dichlorobenzene	2.0	nd	118%	nd	nd	nd
1,2-Dichlorobenzene	2.0	nd		nd	nd	nd
Benzyl alcohol	2.0	nd		nd	nd	nd
2-Methylphenol (o-cresol)	2.0	nd		nd	nd	nd
Bis (2-chloroisopropyl) ether	10.0	nd		nd	nd	nd
3,4-Methylphenol (m,p-cresol)	2.0	nd		nd	nd	nd
Hexachloroethane	2.0	nd		nd	nd	nd
N-Nitroso-di-n-propylamine	2.0	nd		nd	nd	nd
Nitrobenzene	2.0	nd		nd	nd	nd
Isophorone	2.0	nd		nd	nd	nd
2-Nitrophenol	10.0	nd		nd	nd	nd
4-Nitrophenol	10.0	nd		nd	nd	nd
2,4-Dimethylphenol	2.0	nd		nd	nd	nd
Bis (2-chloroethoxy) methane	2.0	nd		nd	nd	nd
2,4-Dichlorophenol	10.0	nd		nd	nd	nd
1,2,4-Trichlorobenzene	2.0	nd		nd	nd	nd
Naphthalene	2.0	nd		nd	nd	nd
4-Chloroaniline	10.0	nd		nd	nd	nd
Hexachlorobutadiene	2.0	nd	129%	nd	nd	nd
4-Chloro-3-methylphenol	10.0	nd		nd	nd	nd
2-Methylnaphthalene	2.0	nd		nd	nd	nd
1-Methylnaphthalene	2.0	nd		nd	nd	nd
Hexachlorocyclopentadiene	2.0	nd		nd	nd	nd
2,4,6-Trichlorophenol	10.0	nd		nd	nd	nd
2,4,5-Trichlorophenol	10.0	nd		nd	nd	nd
2-Chloronaphthalene	2.0	nd		nd	nd	nd
2-Nitroaniline	10.0	nd		nd	nd	nd
1,4-Dinitrobenzene	10.0	nd		nd	nd	nd
Dimethylphthalate	2.0	nd		nd	nd	nd
Acenaphthylene	2.0	nd		nd	nd	nd
1,3-Dinitrobenzene	10.0	nd		nd	nd	nd
2,6-Dinitrotoluene	2.0	nd		nd	nd	nd
1,2-Dinitrobenzene	2.0	nd		nd	nd	nd
Acenaphthene	2.0	nd	132%	nd	nd	nd
3-Nitroaniline	10.0	nd		nd	nd	nd
Dibenzofuran	2.0	nd		nd	nd	nd
2,4-Dinitrotoluene	2.0	nd		nd	nd	nd
2,3,4,6-Tetrachlorophenol	2.0	nd		nd	nd	nd
2,3,5,6-Tetrachlorophenol	2.0	nd		nd	nd	nd
2,4-Dinitrophenol	10.0	nd		nd	nd	nd

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## Analytical Results

8270, µg/L	MTH BLK		LCS	MW14-110608-W	MW15-110608-W	MW16-110608-W
Matrix	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08
Date analyzed	Limits	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08

Fluorene	2.0	nd		nd	nd	nd
4-Chlorophenylphenylether	2.0	nd		nd	nd	nd
Diethylphthalate	2.0	nd		nd	nd	nd
4-Nitroaniline	10.0	nd		nd	nd	nd
4,6-Dinitro-2-methylphenol	10.0	nd		nd	nd	nd
N-nitrosodiphenylamine	2.0	nd	127%	nd	nd	nd
Azobenzene	2.0	nd		nd	nd	nd
4-Bromophenylphenylether	2.0	nd		nd	nd	nd
Hexachlorobenzene	2.0	nd		nd	nd	nd
Pentachlorophenol	10.0	nd		nd	nd	nd
Phenanthrene	2.0	nd		nd	nd	nd
Anthracene	2.0	nd		nd	nd	nd
Carbazole	2.0	nd		nd	nd	nd
Di-n-butylphthalate	2.0	nd		nd	nd	nd
Fluoranthene	2.0	nd	113%	nd	nd	nd
Pyrene	2.0	nd		nd	nd	nd
Butylbenzylphthalate	2.0	nd		nd	nd	nd
Bis(2-ethylhexyl) adipate	2.0	nd		nd	nd	nd
Benzo(a)anthracene	2.0	nd		nd	nd	nd
Chrysene	2.0	nd		nd	nd	nd
Bis (2-ethylhexyl) phthalate	2.0	nd		nd	nd	nd
Di-n-octyl phthalate	2.0	nd	86%	nd	nd	nd
Benzo(b)fluoranthene	2.0	nd		nd	nd	nd
Benzo(k)fluoranthene	2.0	nd		nd	nd	nd
Benzo(a)pyrene	2.0	nd	67%	nd	nd	nd
Dibenzo(a,h)anthracene	2.0	nd		nd	nd	nd
Benzo(ghi)perylene	2.0	nd		nd	nd	nd
Indeno(1,2,3-cd)pyrene	2.0	nd		nd	nd	nd

## Surrogate recoveries

2-Fluorophenol	92%	109%	109%	110%	117%
Phenol-d6	92%	115%	115%	113%	120%
Nitrobenzene-d5	110%	132%	61%	89%	104%
2-Fluorobiphenyl	87%	128%	102%	107%	109%
2,4,6-Tribromophenol	43%	43%	48%	44%	51%
4-Terphenyl-d14	73%	106%	81%	86%	79%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

### Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6- tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%

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## Analytical Results

8270, µg/L	Dupe1-110608-W		Dupe2-110608-W		MS	MSD	RPD
Matrix	Water	Water	Water	Water	Water	Water	
Date extracted	Reporting	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08	
Date analyzed	Limits	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08	
Pyridine	2.0	nd	nd	nd			
Aniline	2.0	nd	nd	nd			
Phenol	2.0	nd	nd	nd	88%	92%	4%
2-Chlorophenol	2.0	nd	nd	nd	107%	111%	4%
Bis (2-chloroethyl) ether	2.0	nd	nd	nd			
1,3-Dichlorobenzene	2.0	nd	nd	nd			
1,4-Dichlorobenzene	2.0	nd	nd	nd	103%	100%	3%
1,2-Dichlorobenzene	2.0	nd	nd	nd			
Benzyl alcohol	2.0	nd	nd	nd			
2-Methylphenol (o-cresol)	2.0	nd	nd	nd			
Bis (2-chloroisopropyl) ether	10.0	nd	nd	nd			
3,4-Methylphenol (m,p-cresol)	2.0	nd	nd	nd			
Hexachlorethane	2.0	nd	nd	nd			
N-Nitroso-di-n-propylamine	2.0	nd	nd	nd	116%	115%	1%
Nitrobenzene	2.0	nd	nd	nd			
Isophorone	2.0	nd	nd	nd			
2-Nitrophenol	10.0	nd	nd	nd			
4-Nitrophenol	10.0	nd	nd	nd			
2,4-Dimethylphenol	2.0	nd	nd	nd	91%	94%	3%
Bis (2-chloroethoxy) methane	2.0	nd	nd	nd			
2,4-Dichlorophenol	10.0	nd	nd	nd			
1,2,4-Trichlorobenzene	2.0	nd	nd	nd	120%	117%	3%
Naphthalene	2.0	nd	nd	nd			
4-Chloroaniline	10.0	nd	nd	nd			
Hexachlorobutadiene	2.0	nd	nd	nd			
4-Chloro-3-methylphenol	10.0	nd	nd	nd	71%	74%	4%
2-Methylnaphthalene	2.0	nd	nd	nd			
1-Methylnaphthalene	2.0	nd	nd	nd			
Hexachlorocyclopentadiene	2.0	nd	nd	nd			
2,4,6-Trichlorophenol	10.0	nd	nd	nd			
2,4,5-Trichlorophenol	10.0	nd	nd	nd			
2-Chloronaphthalene	2.0	nd	nd	nd			
2-Nitroaniline	10.0	nd	nd	nd			
1,4-Dinitrobenzene	10.0	nd	nd	nd			
Dimethylphthalate	2.0	nd	nd	nd			
Acenaphthylene	2.0	nd	nd	nd			
1,3-Dinitrobenzene	10.0	nd	nd	nd			
2,6-Dinitrotoluene	2.0	nd	nd	nd			
1,2-Dinitrobenzene	2.0	nd	nd	nd			
Acenaphthene	2.0	nd	nd	nd	96%	96%	0%
3-Nitroaniline	10.0	nd	nd	nd			
Dibenzofuran	2.0	nd	nd	nd			
2,4-Dinitrotoluene	2.0	nd	nd	nd	79%	79%	0%
2,3,4,6-Tetrachlorophenol	2.0	nd	nd	nd			
2,3,5,6-Tetrachlorophenol	2.0	nd	nd	nd			
2,4-Dinitrophenol	10.0	nd	nd	nd			

# ESN NORTHWEST CHEMISTRY LABORATORY

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Olympia, Washington

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## Analytical Results

8270, µg/L	Dupe1-110608-W	Dupe2-110608-W	MS	MSD	RPD
Matrix	Water	Water	Water	Water	
Date extracted	Reporting	11/12/08	11/12/08	11/12/08	11/12/08
Date analyzed	Limits	11/12/08	11/12/08	11/12/08	11/12/08

Fluorene	2.0	nd	nd		
4-Chlorophenylphenylether	2.0	nd	nd		
Diethylphthalate	2.0	nd	nd		
4-Nitroaniline	10.0	nd	nd		
4,6-Dinitro-2-methylphenol	10.0	nd	nd		
N-nitrosodiphenylamine	2.0	nd	nd		
Azobenzene	2.0	nd	nd		
4-Bromophenylphenylether	2.0	nd	nd		
Hexachlorobenzene	2.0	nd	nd		
Pentachlorophenol	10.0	nd	nd		
Phenanthrene	2.0	nd	nd		
Anthracene	2.0	nd	nd		
Carbazole	2.0	nd	nd		
Di-n-butylphthalate	2.0	nd	nd		
Fluoranthene	2.0	nd	nd		
Pyrene	2.0	nd	nd	69%	71%
Butylbenzylphthalate	2.0	nd	nd		3%
Bis(2-ethylhexyl) adipate	2.0	nd	nd		
Benzo(a)anthracene	2.0	nd	nd		
Chrysene	2.0	nd	nd		
Bis (2-ethylhexyl) phthalate	2.0	nd	nd		
Di-n-octyl phthalate	2.0	nd	nd		
Benzo(b)fluoranthene	2.0	nd	nd		
Benzo(k)fluoranthene	2.0	nd	nd		
Benzo(a)pyrene	2.0	nd	nd		
Dibenzo(a,h)anthracene	2.0	nd	nd		
Benzo(ghi)perylene	2.0	nd	nd		
Indeno(1,2,3-cd)pyrene	2.0	nd	nd		

## Surrogate recoveries

2-Fluorophenol	122%	120%	87%	86%
Phenol-d6	125%	126%	93%	91%
Nitrobenzene-d5	99%	107%	90%	88%
2-Fluorobiphenyl	98%	105%	86%	83%
2,4,6-Tribromophenol	52%	55%	50%	51%
4-Terphenyl-d14	72%	73%	63%	61%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

### Acceptable Recovery limits:

2-Fluorophenol: 10-135 %

Phenol - d5: 10-135 %

2,4,6- tribromophenol: 29-159%

Nitrobenzene - d5: 20-120 %

2-Fluorobiphenyl: 50-150%

p-Terphenyl-d14: 50-150%

Acceptable RPD limit: 35%

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 lab@esnw.com

## Analytical Results

PAH SIM (8270), mg/kg	MTH BLK	LCS	PP20-103008-3	PP20-103008-9	PP19-103008-3
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08
Moisture, %			6%	21%	13%
Acenaphthene	0.01	nd	107%	nd	nd
Acenaphthylene	0.01	nd		nd	nd
Anthracene	0.01	nd		0.03	nd
Benzo(a)anthracene*	0.01	nd		nd	nd
Benzo(a)pyrene*	0.01	nd	63%	nd	nd
Benzo(b)fluoranthene*	0.01	nd		nd	nd
Benzo(ghi)perylene	0.01	nd		nd	nd
Benzo(k)fluoranthene*	0.01	nd		nd	nd
Chrysene*	0.01	nd		nd	nd
Dibenzo(a,h)anthracene*	0.01	nd		nd	nd
Fluorene	0.01	nd		nd	nd
Fluoranthene	0.01	nd	87%	0.14	nd
Indeno(1,2,3-cd)pyrene*	0.01	nd		nd	nd
Naphthalene	0.01	nd		nd	nd
1-Methylnaphthalene	0.01	nd		nd	nd
2-Methylnaphthalene	0.01	nd		nd	nd
Phenanthrene	0.01	nd		0.20	nd
Pyrene	0.01	nd		0.18	nd
Total Carcinogens				nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		94%	91%	92%	80%
p-Terphenyl-d14		95%	96%	131%	66%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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Analytical Results		DUP			
PAH SIM (8270), mg/kg		PP19-103008-6	PP19-103008-6	PP18-103008-3	PP18-103008-10
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08
Moisture, %		16%	16%	8%	48%
Acenaphthene	0.01	nd	nd	nd	nd
Acenaphthylene	0.01	nd	nd	nd	nd
Anthracene	0.01	nd	nd	nd	0.18
Benzo(a)anthracene*	0.01	nd	nd	nd	nd
Benzo(a)pyrene*	0.01	nd	nd	nd	nd
Benzo(b)fluoranthene*	0.01	nd	nd	nd	nd
Benzo(ghi)perylene	0.01	nd	nd	nd	nd
Benzo(k)fluoranthene*	0.01	nd	nd	nd	nd
Chrysene*	0.01	nd	nd	nd	nd
Dibenzo(a,h)anthracene*	0.01	nd	nd	nd	nd
Fluorene	0.01	nd	nd	nd	nd
Fluoranthene	0.01	nd	nd	nd	1.2
Indeno(1,2,3-cd)pyrene*	0.01	nd	nd	nd	nd
Naphthalene	0.01	nd	nd	nd	nd
1-Methylnaphthalene	0.01	nd	nd	nd	nd
2-Methylnaphthalene	0.01	nd	nd	nd	nd
Phenanthrene	0.01	nd	nd	nd	0.52
Pyrene	0.01	nd	nd	nd	1.2
Total Carcinogens		nd	nd	nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		84%	79%	80%	113%
p-Terphenyl-d14		68%	65%	68%	86%
					124%

**Data Qualifiers and Analytical Comments**

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 M - matrix interference  
 J - estimated value  
 Results reported on dry-weight basis  
 Acceptable Recovery limits: 50% TO 150%  
 Acceptable RPD limit: 35%

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**Analytical Results**

<b>PAH SIM (8270), mg/kg</b>		<b>MW13-103008-3</b>	<b>MW13-103008-8</b>	<b>MW11-103008-3</b>	<b>MW11-103008-8</b>
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08
Moisture, %		11%	15%	18%	17%
Acenaphthene	0.01	nd	nd	nd	nd
Acenaphthylene	0.01	nd	nd	nd	nd
Anthracene	0.01	nd	nd	nd	nd
Benzo(a)anthracene*	0.01	nd	nd	nd	nd
Benzo(a)pyrene*	0.01	nd	nd	nd	nd
Benzo(b)fluoranthene*	0.01	nd	nd	nd	nd
Benzo(ghi)perylene	0.01	nd	nd	nd	nd
Benzo(k)fluoranthene*	0.01	nd	nd	nd	nd
Chrysene*	0.01	nd	nd	nd	nd
Dibenzo(a,h)anthracene*	0.01	nd	nd	nd	nd
Fluorene	0.01	nd	nd	nd	nd
Fluoranthene	0.01	nd	nd	nd	nd
Indeno(1,2,3-cd)pyrene*	0.01	nd	nd	nd	nd
Naphthalene	0.01	nd	nd	nd	nd
1-Methylnaphthalene	0.01	nd	nd	nd	nd
2-Methylnaphthalene	0.01	nd	nd	nd	nd
Phenanthrene	0.01	nd	nd	nd	nd
Pyrene	0.01	nd	nd	nd	nd
Total Carcinogens		nd	nd	nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		81%	74%	89%	82%
p-Terphenyl-d14		65%	66%	72%	67%

**Data Qualifiers and Analytical Comments**

\* - Carcinogenic Analyte  
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 C - coelution with sample peaks  
 M - matrix interference  
 J - estimated value  
 Results reported on dry-weight basis  
 Acceptable Recovery limits: 50% TO 150%  
 Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), mg/kg		MS	MSD	RPD
Matrix	Soil	Soil	Soil	
Date extracted	Reporting	11/06/08	11/06/08	
Date analyzed	Limits	11/06/08	11/06/08	
Moisture, %				
Acenaphthene	0.01	116%	113%	3%
Acenaphthylene	0.01			
Anthracene	0.01			
Benzo(a)anthracene*	0.01			
Benzo(a)pyrene*	0.01			
Benzo(b)fluoranthene*	0.01			
Benzo(ghi)perylene	0.01			
Benzo(k)fluoranthene*	0.01			
Chrysene*	0.01			
Dibenzo(a,h)anthracene*	0.01			
Fluorene	0.01			
Fluoranthene	0.01			
Indeno(1,2,3-cd)pyrene*	0.01			
Naphthalene	0.01			
1-Methylnaphthalene	0.01			
2-Methylnaphthalene	0.01			
Phenanthrene	0.01			
Pyrene	0.01	90%	94%	4%

## Total Carcinogens

### Surrogate recoveries:

2-Fluorobiphenyl	87%	92%
p-Terphenyl-d14	79%	82%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%



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## Analytical Results

PAH SIM (8270), mg/kg		MTH BLK	LCS	MW10-103108-3	MW10-103108-7	MW12-103108-8
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Moisture, %				7%	20%	18%
Acenaphthene	0.01	nd	107%	nd	nd	nd
Acenaphthylene	0.01	nd		nd	nd	nd
Anthracene	0.01	nd		nd	nd	nd
Benzo(a)anthracene*	0.01	nd		nd	nd	nd
Benzo(a)pyrene*	0.01	nd	63%	nd	nd	nd
Benzo(b)fluoranthene*	0.01	nd		nd	nd	nd
Benzo(ghi)perylene	0.01	nd		nd	nd	nd
Benzo(k)fluoranthene*	0.01	nd		nd	nd	nd
Chrysene*	0.01	nd		nd	nd	nd
Dibenzo(a,h)anthracene*	0.01	nd		nd	nd	nd
Fluorene	0.01	nd		nd	nd	nd
Fluoranthene	0.01	nd	87%	nd	nd	nd
Indeno(1,2,3-cd)pyrene*	0.01	nd		nd	nd	nd
Naphthalene	0.01	nd		nd	nd	nd
1-Methylnaphthalene	0.01	nd		nd	nd	nd
2-Methylnaphthalene	0.01	nd		nd	nd	nd
Phenanthrene	0.01	nd		nd	nd	nd
Pyrene	0.01	nd		nd	nd	nd
Total Carcinogens				nd	nd	nd
Surrogate recoveries:						
2-Fluorobiphenyl		94%	91%	74%	97%	108%
p-Terphenyl-d14		95%	96%	70%	77%	90%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

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na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), mg/kg		MW16-103108-5	MW16-103108-10	MW15-103108-3	MW15-103108-5
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08
Moisture, %		15%	28%	8%	15%
Acenaphthene	0.01	nd	nd	nd	nd
Acenaphthylene	0.01	nd	nd	nd	nd
Anthracene	0.01	nd	nd	nd	nd
Benzo(a)anthracene*	0.01	nd	nd	nd	nd
Benzo(a)pyrene*	0.01	nd	nd	nd	nd
Benzo(b)fluoranthene*	0.01	nd	nd	nd	nd
Benzo(ghi)perylene	0.01	nd	nd	nd	nd
Benzo(k)fluoranthene*	0.01	nd	nd	nd	nd
Chrysene*	0.01	nd	nd	nd	nd
Dibenzo(a,h)anthracene*	0.01	nd	nd	nd	nd
Fluorene	0.01	nd	nd	nd	nd
Fluoranthene	0.01	nd	nd	0.08	nd
Indeno(1,2,3-cd)pyrene*	0.01	nd	nd	nd	nd
Naphthalene	0.01	nd	nd	0.24	nd
1-Methylnaphthalene	0.01	nd	nd	0.05	nd
2-Methylnaphthalene	0.01	nd	nd	0.14	nd
Phenanthrene	0.01	nd	nd	nd	nd
Pyrene	0.01	nd	nd	0.08	nd
Total Carcinogens		nd	nd	nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		99%	100%	89%	99%
p-Terphenyl-d14		83%	81%	63%	76%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

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na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), mg/kg		MW14-103108-4	MW14-103108-8	MS	MSD	RPD
Matrix	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08	
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	
Moisture, %		23%	13%			
Acenaphthene	0.01	0.07	0.05	116%	113%	3%
Acenaphthylene	0.01	nd	nd			
Anthracene	0.01	nd	nd			
Benzo(a)anthracene*	0.01	nd	nd			
Benzo(a)pyrene*	0.01	nd	nd			
Benzo(b)fluoranthene*	0.01	nd	nd			
Benzo(ghi)perylene	0.01	nd	nd			
Benzo(k)fluoranthene*	0.01	nd	nd			
Chrysene*	0.01	nd	nd			
Dibenzo(a,h)anthracene*	0.01	nd	nd			
Fluorene	0.01	nd	nd			
Fluoranthene	0.01	nd	nd			
Indeno(1,2,3-cd)pyrene*	0.01	nd	nd			
Naphthalene	0.01	nd	nd			
1-Methylnaphthalene	0.01	nd	nd			
2-Methylnaphthalene	0.01	nd	nd			
Phenanthrene	0.01	nd	nd			
Pyrene	0.01	nd	nd	90%	94%	4%
Total Carcinogens		nd	nd			
Surrogate recoveries:						
2-Fluorobiphenyl		86%	97%	87%	92%	
p-Terphenyl-d14		70%	80%	79%	82%	

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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Analytical Results

PAH SIM (8270), ug/L	MTH BLK	LCS	PP20-103008-W	PP19-103008-W	PP18-103008-W
Matrix	Water	Water	Water	Water	Water
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08
Acenaphthene	0.2	nd	107%	nd	nd
Acenaphthylene	0.2	nd		nd	nd
Anthracene	0.2	nd		nd	nd
Benzo(a)anthracene*	0.2	nd		nd	nd
Benzo(a)pyrene*	0.2	nd	63%	nd	nd
Benzo(b)fluoranthene*	0.2	nd		nd	nd
Benzo(ghi)perylene	0.2	nd		nd	nd
Benzo(k)fluoranthene*	0.2	nd		nd	nd
Chrysene*	0.2	nd		nd	nd
Dibenzo(a,h)anthracene*	0.2	nd		nd	nd
Fluorene	0.2	nd		nd	nd
Fluoranthene	0.2	nd	87%	nd	nd
Indeno(1,2,3-cd)pyrene*	0.2	nd		nd	nd
Naphthalene	0.2	nd		nd	nd
1-Methylnaphthalene	0.2	nd		nd	nd
2-Methylnaphthalene	0.2	nd		nd	nd
Phenanthrene	0.2	nd		nd	nd
Pyrene	0.2	nd		nd	nd
Total Carcinogens				nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		94%	91%	108%	96%
p-Terphenyl-d14		95%	96%	120%	119%

Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte  
 nd - not detected at listed reporting limits  
 na - not analyzed  
 C - coelution with sample peaks  
 M - matrix interference  
 J - estimated value  
 Results reported on dry-weight basis  
 Acceptable Recovery limits: 50% TO 150%  
 Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), ug/L	MW1-103008-W	MW2-103008-W	MW3-103008-W	MW4-103008-W
Matrix	Water	Water	Water	Water
Date extracted	Reporting	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08
Acenaphthene	0.2	nd	nd	nd
Acenaphthylene	0.2	nd	nd	nd
Anthracene	0.2	nd	nd	nd
Benzo(a)anthracene*	0.2	nd	nd	nd
Benzo(a)pyrene*	0.2	nd	nd	nd
Benzo(b)fluoranthene*	0.2	nd	nd	nd
Benzo(ghi)perylene	0.2	nd	nd	nd
Benzo(k)fluoranthene*	0.2	nd	nd	nd
Chrysene*	0.2	nd	nd	nd
Dibenzo(a,h)anthracene*	0.2	nd	nd	nd
Fluorene	0.2	nd	nd	nd
Fluoranthene	0.2	nd	nd	nd
Indeno(1,2,3-cd)pyrene*	0.2	nd	nd	nd
Naphthalene	0.2	nd	nd	nd
1-Methylnaphthalene	0.2	nd	nd	nd
2-Methylnaphthalene	0.2	nd	nd	nd
Phenanthrene	0.2	nd	nd	nd
Pyrene	0.2	nd	nd	nd
Total Carcinogens		nd	nd	nd
Surrogate recoveries:				
2-Fluorobiphenyl		93%	99%	91%
p-Terphenyl-d14		98%	91%	91%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

**ESN NORTHWEST CHEMISTRY LABORATORY**

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Olympia, Washington

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Analytical Results

PAH SIM (8270), ug/L		MS	MSD	RPD
Matrix	Water	Water	Water	
Date extracted	Reporting	11/06/08	11/06/08	
Date analyzed	Limits	11/06/08	11/06/08	
Acenaphthene	0.2	116%	113%	3%
Acenaphthylene	0.2			
Anthracene	0.2			
Benzo(a)anthracene*	0.2			
Benzo(a)pyrene*	0.2			
Benzo(b)fluoranthene*	0.2			
Benzo(ghi)perylene	0.2			
Benzo(k)fluoranthene*	0.2			
Chrysene*	0.2			
Dibenzo(a,h)anthracene*	0.2			
Fluorene	0.2			
Fluoranthene	0.2			
Indeno(1,2,3-cd)pyrene*	0.2			
Naphthalene	0.2			
1-Methylnaphthalene	0.2			
2-Methylnaphthalene	0.2			
Phenanthrene	0.2			
Pyrene	0.2	90%	94%	4%

Total Carcinogens

Surrogate recoveries:

2-Fluorobiphenyl	87%	92%
p-Terphenyl-d14	79%	82%

Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), ug/L		MTH BLK	LCS	MW5-103108-W	MW6-103108-W	MW7-103108-W
Matrix	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	11/06/08	11/06/08	11/05/08	11/05/08	11/05/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Acenaphthene	0.2	nd	107%	nd	nd	nd
Acenaphthylene	0.2	nd		nd	nd	nd
Anthracene	0.2	nd		nd	nd	nd
Benzo(a)anthracene*	0.2	nd		nd	nd	nd
Benzo(a)pyrene*	0.2	nd	63%	nd	nd	nd
Benzo(b)fluoranthene*	0.2	nd		nd	nd	nd
Benzo(ghi)perylene	0.2	nd		nd	nd	nd
Benzo(k)fluoranthene*	0.2	nd		nd	nd	nd
Chrysene*	0.2	nd		nd	nd	nd
Dibenzo(a,h)anthracene*	0.2	nd		nd	nd	nd
Fluorene	0.2	nd		nd	nd	nd
Fluoranthene	0.2	nd	87%	nd	nd	nd
Indeno(1,2,3-cd)pyrene*	0.2	nd		nd	nd	nd
Naphthalene	0.2	nd		nd	nd	nd
1-Methylnaphthalene	0.2	nd		nd	nd	nd
2-Methylnaphthalene	0.2	nd		nd	nd	nd
Phenanthrene	0.2	nd		nd	nd	nd
Pyrene	0.2	nd		nd	nd	nd
Total Carcinogens				nd	nd	nd
Surrogate recoveries:						
2-Fluorobiphenyl		94%	91%	96%	81%	100%
p-Terphenyl-d14		95%	96%	100%	128%	111%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), ug/L	MW8-103108-W	MW9-103108-W	MS	MSD	RPD	
Matrix	Water	Water	Water	Water	Water	
Date extracted	Reporting	11/05/08	11/05/08	11/05/08	11/05/08	
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	
Acenaphthene	0.2	nd	nd	116%	113%	3%
Acenaphthylene	0.2	nd	nd			
Anthracene	0.2	nd	nd			
Benzo(a)anthracene*	0.2	nd	nd			
Benzo(a)pyrene*	0.2	nd	nd			
Benzo(b)fluoranthene*	0.2	nd	nd			
Benzo(ghi)perylene	0.2	nd	nd			
Benzo(k)fluoranthene*	0.2	nd	nd			
Chrysene*	0.2	nd	nd			
Dibenzo(a,h)anthracene*	0.2	nd	nd			
Fluorene	0.2	nd	nd			
Fluoranthene	0.2	nd	nd			
Indeno(1,2,3-cd)pyrene*	0.2	nd	nd			
Naphthalene	0.2	nd	nd			
1-Methylnaphthalene	0.2	nd	nd			
2-Methylnaphthalene	0.2	nd	nd			
Phenanthrene	0.2	nd	nd			
Pyrene	0.2	nd	nd	90%	94%	4%
Total Carcinogens		nd	nd			
Surrogate recoveries:						
2-Fluorobiphenyl		94%	91%	87%	92%	
p-Terphenyl-d14		122%	122%	79%	82%	

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%



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## Analytical Results

PAH SIM (8270), ug/L	MTH BLK	LCS	MW10-110408-W	MW11-110408-W	MW12-110408-W	
Matrix	Water	Water	Water	Water	Water	
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Acenaphthene	0.2	nd	107%	nd	nd	nd
Acenaphthylene	0.2	nd		nd	nd	nd
Anthracene	0.2	nd		nd	nd	nd
Benzo(a)anthracene*	0.2	nd		nd	nd	nd
Benzo(a)pyrene*	0.2	nd	63%	nd	nd	nd
Benzo(b)fluoranthene*	0.2	nd		nd	nd	nd
Benzo(ghi)perylene	0.2	nd		nd	nd	nd
Benzo(k)fluoranthene*	0.2	nd		nd	nd	nd
Chrysene*	0.2	nd		nd	nd	nd
Dibenzo(a,h)anthracene*	0.2	nd		nd	nd	nd
Fluorene	0.2	nd		nd	nd	nd
Fluoranthene	0.2	nd	87%	nd	nd	nd
Indeno(1,2,3-cd)pyrene*	0.2	nd		nd	nd	nd
Naphthalene	0.2	nd		nd	nd	nd
1-Methylnaphthalene	0.2	nd		nd	nd	nd
2-Methylnaphthalene	0.2	nd		nd	nd	nd
Phenanthrene	0.2	nd		nd	nd	nd
Pyrene	0.2	nd		nd	nd	nd
Total Carcinogens				nd	nd	nd
Surrogate recoveries:						
2-Fluorobiphenyl		94%	91%	97%	96%	108%
p-Terphenyl-d14		95%	96%	104%	119%	123%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), ug/L	MW13-110408-W	MS	MSD	RPD	
Matrix	Water	Water	Water	Water	
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	
Acenaphthene	0.2	nd	122%	120%	2%
Acenaphthylene	0.2	nd			
Anthracene	0.2	nd			
Benzo(a)anthracene*	0.2	nd			
Benzo(a)pyrene*	0.2	nd			
Benzo(b)fluoranthene*	0.2	nd			
Benzo(ghi)perylene	0.2	nd			
Benzo(k)fluoranthene*	0.2	nd			
Chrysene*	0.2	nd			
Dibenzo(a,h)anthracene*	0.2	nd			
Fluorene	0.2	nd			
Fluoranthene	0.2	nd			
Indeno(1,2,3-cd)pyrene*	0.2	nd			
Naphthalene	0.2	nd			
1-Methylnaphthalene	0.2	nd			
2-Methylnaphthalene	0.2	nd			
Phenanthrene	0.2	nd			
Pyrene	0.2	nd	86%	88%	2%

Total Carcinogens nd

## Surrogate recoveries:

2-Fluorobiphenyl	106%	86%	93%
p-Terphenyl-d14	127%	77%	82%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), ug/L	MTH BLK	LCS	MW14-110608-W	MW15-110608-W	MW16-110608-W
Matrix	Water	Water	Water	Water	Water
Date extracted	Reporting	11/12/08	11/12/08	11/12/08	11/12/08
Date analyzed	Limits	11/12/08	11/12/08	11/12/08	11/12/08
Acenaphthene	0.2	nd	108%	nd	nd
Acenaphthylene	0.2	nd		nd	nd
Anthracene	0.2	nd		nd	nd
Benzo(a)anthracene*	0.2	nd		nd	nd
Benzo(a)pyrene*	0.2	nd	63%	nd	nd
Benzo(b)fluoranthene*	0.2	nd		nd	nd
Benzo(ghi)perylene	0.2	nd		nd	nd
Benzo(k)fluoranthene*	0.2	nd		nd	nd
Chrysene*	0.2	nd		nd	nd
Dibenzo(a,h)anthracene*	0.2	nd		nd	nd
Fluorene	0.2	nd		nd	nd
Fluoranthene	0.2	nd	83%	nd	nd
Indeno(1,2,3-cd)pyrene*	0.2	nd		nd	nd
Naphthalene	0.2	nd		nd	nd
1-Methylnaphthalene	0.2	nd		nd	nd
2-Methylnaphthalene	0.2	nd		nd	nd
Phenanthrene	0.2	nd		nd	nd
Pyrene	0.2	nd		nd	nd
Total Carcinogens				nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		95%	91%	130%	125%
p-Terphenyl-d14		93%	93%	115%	122%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

# ESN NORTHWEST CHEMISTRY LABORATORY

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## Analytical Results

PAH SIM (8270), ug/L	Dupe1-110608-W		Dupe2-110608-W		MS	MSD	RPD
	Water	Water	Water	Water	Water	Water	
Date extracted	Reporting	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08	
Date analyzed	Limits	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08	
Acenaphthene	0.2	nd	nd	nd	125%	130%	4%
Acenaphthylene	0.2	nd	nd	nd			
Anthracene	0.2	nd	nd	nd			
Benzo(a)anthracene*	0.2	nd	nd	nd			
Benzo(a)pyrene*	0.2	nd	nd	nd			
Benzo(b)fluoranthene*	0.2	nd	nd	nd			
Benzo(ghi)perylene	0.2	nd	nd	nd			
Benzo(k)fluoranthene*	0.2	nd	nd	nd			
Chrysene*	0.2	nd	nd	nd			
Dibenzo(a,h)anthracene*	0.2	nd	nd	nd			
Fluorene	0.2	nd	nd	nd			
Fluoranthene	0.2	nd	nd	nd			
Indeno(1,2,3-cd)pyrene*	0.2	nd	nd	nd			
Naphthalene	0.2	nd	nd	nd			
1-Methylnaphthalene	0.2	nd	nd	nd			
2-Methylnaphthalene	0.2	nd	nd	nd			
Phenanthrene	0.2	nd	nd	nd			
Pyrene	0.2	nd	nd	nd	88%	92%	4%
Total Carcinogens		nd	nd	nd			
Surrogate recoveries:							
2-Fluorobiphenyl		115%	104%	86%	91%		
p-Terphenyl-d14		92%	92%	82%	86%		

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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### Total Metals in Soil by EPA-6020 Method

Sample Number	Date Analyzed	Lead (Pb) (mg/kg)	Arsenic (As) (mg/kg)	Mercury (Hg) (mg/kg)
Method Blank	11/3/2008	nd	nd	nd
PP20-103008-3	11/3/2008	20	1.5	nd
PP20-103008-9	11/3/2008	1.6	1.0	nd
PP19-103008-3	11/3/2008	46	1.3	nd
PP19-103008-6	11/3/2008	1.6	nd	nd
PP18-103008-3	11/3/2008	1.3	1.8	nd
PP18-103008-10	11/3/2008	7.1	1.3	nd
MW13-103008-3	11/3/2008	4.0	1.3	nd
MW13-103008-8	11/3/2008	2.0	1.4	nd
MW11-103008-3	11/3/2008	1.1	1.6	nd
MW11-103008-3 Dup	11/3/2008	1.0	1.6	nd
MW11-103008-8	11/3/2008	nd	nd	nd
Method Detection Limits		1.0	1.0	0.5

"nd" Indicates not detected at listed detection limits.

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**QA/QC Data - Total Metals EPA-6020**

Sample Number: Batch QC							
	Matrix Spike			Matrix Spike Duplicate			RPD
	Sample Result (mg/Kg)	Duplicate Result (mg/Kg)	Spike Recovery (%)	Spiked Conc. (mg/Kg)	Measured Conc. (mg/Kg)	Spike Recovery (%)	(%)
Lead	100	83	83	100	88	88	5.8
Arsenic	100	133	133	100	127	127	4.6
Mercury	10	7.1	71	10	8	76	6.8

Laboratory Control Sample			
	Spiked Conc. (mg/Kg)	Measured Conc. (mg/Kg)	Spike Recovery (%)
Lead	100	98	98
Arsenic	100	120	120
Mercury	10	10.0	100

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%  
 ACCEPTABLE RPD IS 35%

M - Matrix Spike recovery failed due to matrix interference.

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**Total Metals in Soil by EPA-6020 Method**

Sample Number	Date Analyzed	Lead (Pb) (mg/kg)	Arsenic (As) (mg/kg)	Mercury (Hg) (mg/kg)
Method Blank	11/5/2008	nd	nd	nd
MW10-103108-3	11/5/2008	<b>8.1</b>	<b>1.1</b>	nd
MW10-103108-7	11/5/2008	<b>1.2</b>	nd	nd
MW12-103108-4.5	11/5/2008	<b>1.3</b>	nd	nd
MW12-103108-8	11/5/2008	<b>1.4</b>	nd	nd
MW16-103108-5	11/5/2008	nd	nd	nd
MW16-103108-10	11/5/2008	<b>4.4</b>	nd	nd
MW15-103108-3	11/6/2008	<b>510</b>	<b>2.1</b>	nd
MW15-103108-5	11/6/2008	nd	nd	nd
MW14-103108-4	11/6/2008	<b>19</b>	<b>1.7</b>	nd
MW14-103108-8	11/6/2008	nd	<b>1.0</b>	nd
MW14-103108-8 Dup	11/6/2008	nd	<b>1.1</b>	nd
Method Detection Limits		1.0	1.0	0.5

"nd" Indicates not detected at listed detection limits.

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**QA/QC Data - Total Metals EPA-6020**

Sample Number: Batch QC							
	Matrix Spike			Matrix Spike Duplicate			RPD
	Sample Result (mg/Kg)	Duplicate Result (mg/Kg)	Spike Recovery (%)	Spiked Conc. (mg/Kg)	Measured Conc. (mg/Kg)	Spike Recovery (%)	(%)
Lead	100	83	83	100	88	88	5.8
Arsenic	100	133	133	100	127	127	4.6
Mercury	10	7.1	71	10	8	76	6.8

Laboratory Control Sample			
	Spiked Conc. (mg/Kg)	Measured Conc. (mg/Kg)	Spike Recovery (%)
Lead	100	98	98
Arsenic	100	120	120
Mercury	10	10.0	100

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%  
 ACCEPTABLE RPD IS 35%

M - Matrix Spike recovery failed due to matrix interference.



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## Total Metals in Water by EPA-6020 Method

Sample Number	Date Analyzed	Lead (Pb) (ug/L)	Arsenic (As) (ug/L)	Mercury (Hg) (ug/L)
Method Blank	11/12/2008	nd	nd	nd
PP20-103008-W	11/12/2008	3.9	6.3	nd
PP20-103008-W Dup.	11/12/2008	3.9	6.1	nd
PP19-103008-W	11/12/2008	8.8	25	nd
PP18-103008-W	11/12/2008	40	18	nd
MW1-103008-W	11/12/2008	nd	13	nd
MW2-103008-W	11/12/2008	4.0	9.3	nd
MW3-103008-W	11/12/2008	nd	5.9	nd
MW4-103008-W	11/12/2008	3.4	12	nd
Method Detection Limits		2	2	1

"nd" Indicates not detected at listed detection limits.

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**QA/QC Data - Dissolved Metals EPA-6020**

Sample Number: MW4-103008-W							
	Matrix Spike			Matrix Spike Duplicate			RPD (%)
	Spike Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	
Lead	100	107	107	100	107	107	0.00
Arsenic	100	133	133	100	132	132	0.75
Mercury	10	6.8	68	10	8.1	81	17.4

Laboratory Control Sample			
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)
Lead	100	112	112
Arsenic	100	117	117
Mercury	10	10.8	108

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%

ACCEPTABLE RPD IS 35%

M - Matrix Spike recovery failed due to matrix interference.

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## Total Metals in Water by EPA-6020 Method

Sample Number	Date Analyzed	Lead (Pb) (ug/L)	Arsenic (As) (ug/L)	Mercury (Hg) (ug/L)
Method Blank	11/12/2008	nd	nd	nd
MW5-103108-W	11/12/2008	7.4	14	nd
MW6-103108-W	11/12/2008	nd	6.5	nd
MW7-103108-W	11/12/2008	nd	3.6	nd
MW8-103108-W	11/12/2008	nd	6.2	nd
MW9-103108-W	11/12/2008	nd	9.3	nd
MW9-103108-W Dup.	11/12/2008	nd	9.5	nd
Method Detection Limits		2	2	1

"nd" Indicates not detected at listed detection limits.

**ESN NORTHWEST CHEMISTRY LABORATORY**

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**QA/QC Data - Dissolved Metals EPA-6020**

Sample Number: MW9-103108-W							
	Matrix Spike			Matrix Spike Duplicate			RPD (%)
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	
Lead	100	118	118	100	123	123	4.1
Arsenic	100	127	127	100	131	131	3.3
Mercury	10	7.4	74	10	8.5	85	14

Laboratory Control Sample			
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)
Lead	100	129	129
Arsenic	100	112	112
Mercury	10	9.3	93

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%

ACCEPTABLE RPD IS 35%

M - Matrix Spike recovery failed due to matrix interference.

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## Total Metals in Water by EPA-6020 Method

Sample Number	Date Analyzed	Lead (Pb) (ug/L)	Arsenic (As) (ug/L)	Mercury (Hg) (ug/L)
Method Blank	11/12/2008	nd	nd	nd
MW10-110408-W	11/12/2008	nd	4.7	nd
MW10-110408-W	11/12/2008	nd	4.6	nd
MW11-110408-W	11/12/2008	nd	16	nd
MW11-110408-W Dup	11/12/2008	nd	13	nd
MW12-110408-W	11/12/2008	nd	6.4	nd
MW13-110408-W	11/12/2008	nd	63	nd
Method Detection Limits		2	2	1

"nd" Indicates not detected at listed detection limits.

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**QA/QC Data - Total Metals EPA-6020**

Sample Number: MW10-110408-W							
	Matrix Spike			Matrix Spike Duplicate			RPD (%)
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	
Lead	100	117	117	100	118	118	0.9
Arsenic	100	128	128	100	127	127	0.8
Mercury	10	11.4	114	10	12.0	65M	0.1

Laboratory Control Sample			
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)
Lead	100	134	134
Arsenic	100	112	112
Mercury	10	9.8	98

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%

ACCEPTABLE RPD IS 35%

M - Matrix Spike recovery failed due to matrix interference.

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## Total Metals in Water by EPA-6020 Method

Sample Number	Date Analyzed	Lead (Pb) (ug/L)	Arsenic (As) (ug/L)	Mercury (Hg) (ug/L)
Method Blank	11/12/2008	nd	nd	nd
MW14-110608-W	11/12/2008	nd	4.5	nd
MW15-110608-W	11/12/2008	nd	12	nd
MW15-110608-W Dup.	11/12/2008	nd	12	nd
MW16-110608-W	11/12/2008	nd	3.6	nd
Dupe1-110608-W	11/12/2008	nd	3.8	nd
Dupe2-110608-W	11/12/2008	nd	4.6	nd
Method Detection Limits		2	2	1

"nd" Indicates not detected at listed detection limits.

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**QA/QC Data - Total Metals EPA-6020**

Sample Number: MW15-110608-W							
	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	(%)
Lead	100	112	112	100	112	112	0.0
Arsenic	100	118	118	100	117	117	0.9
Mercury	10	10.8	108	10	11.8	118	8.8

Laboratory Control Sample			
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)
Lead	100	114	114
Arsenic	100	115	115
Mercury	10	10.8	108

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%



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### Dissolved Metals in Water by EPA-6020 Method

Sample Number	Date Analyzed	Lead (Pb) (ug/L)	Arsenic (As) (ug/L)	Mercury (Hg) (ug/L)
Method Blank	11/11/2008	nd	nd	nd
PP20-103008-W	11/11/2008	nd	4.4	nd
PP19-103008-W	11/11/2008	nd	13	nd
PP18-103008-W	11/11/2008	nd	17	nd
MW1-103008-W	11/11/2008	nd	14	nd
MW2-103008-W	11/11/2008	nd	9.5	nd
MW3-103008-W	11/11/2008	nd	5.8	nd
MW4-103008-W	11/11/2008	nd	17	nd
MW4-103008-W Dup	11/11/2008	nd	17	nd
Method Detection Limits		2	2	1

"nd" Indicates not detected at listed detection limits.

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**QA/QC Data - Dissolved Metals EPA-6020**

Sample Number: MW4-103008-W							
	Matrix Spike			Matrix Spike Duplicate			RPD (%)
	Sample Result (ug/L)	Duplicate Result (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	
Lead	100	108	108	100	115	115	6.3
Arsenic	100	127	127	100	142	142	11
Mercury	10	3.6	36M	10	5	49M	31

Laboratory Control Sample			
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)
Lead	100	114	114
Arsenic	100	118	118
Mercury	10	11.8	118

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%

ACCEPTABLE RPD IS 35%

M - Matrix Spike recovery failed due to matrix interference.

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### Dissolved Metals in Water by EPA-6020 Method

Sample Number	Date Analyzed	Lead (Pb) (ug/L)	Arsenic (As) (ug/L)	Mercury (Hg) (ug/L)
Method Blank	11/12/2008	nd	nd	nd
MW5-103108-W	11/12/2008	nd	15	nd
MW6-103108-W	11/12/2008	nd	7.4	nd
MW7-103108-W	11/12/2008	nd	5.0	nd
MW8-103108-W	11/12/2008	nd	5.8	nd
MW9-103108-W	11/12/2008	nd	9.7	nd
MW9-103108-W Dup.	11/12/2008	nd	10	nd
Method Detection Limits		2	2	1

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**QA/QC Data - Dissolved Metals EPA-6020**

Sample Number: MW9-103108-W							
	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	(%)
Lead	100	117	117	100	124	124	5.8
Arsenic	100	121	121	100	127	127	4.8
Mercury	10	4.5	45M	10	4.9	49M	8.5

Laboratory Control Sample			
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)
Lead	100	129	129
Arsenic	100	112	112
Mercury	10	9.3	93

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%

ACCEPTABLE RPD IS 35%

M - Matrix Spike recovery failed due to matrix interference.

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### Dissolved Metals in Water by EPA-6020 Method

Sample Number	Date Analyzed	Lead (Pb) (ug/L)	Arsenic (As) (ug/L)	Mercury (Hg) (ug/L)
Method Blank	11/12/2008	nd	nd	nd
MW10-110408-W	11/12/2008	nd	5.9	nd
MW11-110408-W	11/12/2008	nd	17	nd
MW12-110408-W	11/12/2008	nd	9.3	nd
MW13-110408-W	11/12/2008	nd	62	nd
MW13-110408-W Dup.	11/12/2008	nd	69	nd
Method Detection Limits		2	2	1

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**QA/QC Data - Dissolved Metals EPA-6020**

Sample Number: MW13-110408-W							
	Matrix Spike			Matrix Spike Duplicate			RPD (%)
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	
Lead	100	120	120	100	123	123	2.5
Arsenic	100	136	136	100	140	140	2.9
Mercury	10	5.2	52M	10	6.5	65M	22

Laboratory Control Sample			
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)
Lead	100	134	134
Arsenic	100	112	112
Mercury	10	9.8	98

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%

ACCEPTABLE RPD IS 35%

M - Matrix Spike recovery failed due to matrix interference.

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**Dissolved Metals in Water by EPA-6020 Method**

Sample Number	Date Analyzed	Lead (Pb) (ug/L)	Arsenic (As) (ug/L)	Mercury (Hg) (ug/L)
Method Blank	11/12/2008	nd	nd	nd
MW14-110608-W	11/12/2008	nd	5.6	nd
MW14-110608-W Dup.	11/12/2008	nd	5.4	nd
MW15-110608-W	11/12/2008	nd	13	nd
MW16-110608-W	11/12/2008	nd	3.9	nd
Dupe1-110608-W	11/12/2008	nd	4.7	nd
Dupe2-110608-W	11/12/2008	nd	4.8	nd
Method Detection Limits		2	2	1

"nd" Indicates not detected at listed detection limits.

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**QA/QC Data - Dissolved Metals EPA-6020**

Sample Number: MW14-110608-W							
	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)	
Lead	100	81	81	100	80	80	1.2
Arsenic	100	94	94	100	92	92	2.2
Mercury	10	3.9	39M	10	3.9	39M	0.0

Laboratory Control Sample			
	Spiked Conc. (ug/L)	Measured Conc. (ug/L)	Spike Recovery (%)
Lead	100	121	121
Arsenic	100	102	102
Mercury	10	10.8	108

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%

ACCEPTABLE RPD IS 35%

M - Matrix Spike recovery failed due to matrix interference.



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## TCLP Metals in Soil by EPA-Method 1311/1620

Sample Number	Date Analyzed	Lead (Pb) (mg/L)	Chromium (Cr) (mg/L)	Arsenic (As) (mg/L)
Method Blank	12/2/2008	nd	nd	nd
Comp-120108-S	12/2/2008	nd	nd	nd
Comp-120108-S Duplicate	12/2/2008	nd	nd	nd
Method Detection Limits		0.20	0.80	0.80

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**QA/QC Data - TCLP EPA-Method 1311/6020**

Sample Number	Date Analyzed	Lead (Pb) (mg/L)	Chromium (Cr) (mg/L)	Arsenic (As) (mg/L)
Matrix Spike Level	12/2/2008	1.00	1.00	1.00
Sample + Matrix Spike	12/2/2008	1.30	1.07	1.03
Percent Recovery (%)		130	107	103
Method Detection Limits		0.20	0.80	0.80

"nd" Indicates not detected at listed detection limits.

M - Matrix Spike recovery failed due to matrix interference.

	Laboratory Control Sample		
	Spiked Conc. (mg/L)	Measured Conc. (mg/L)	Spike Recovery (%)
Lead	1.00	1.17	117
Chromium	1.00	1.07	107
Arsenic	1.00	1.03	103

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%  
 ACCEPTABLE RPD IS 35%

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**Sample Preparation Information for  
Toxicity Characteristic Leaching  
Procedure (TCLP) by EPA Method 1311**

Sample Number: Comp-120108-S  
No. of Extractions: 1  
Type of Extraction: Rotary  
Extraction Fluid: #1  
Date Extracted: 12/1/2008

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## Analytical Results

8260, µg/L (Water)	Reporting	MB	LCS	PP20-103008-W	PP19-103008-W	PP18-103008-W	MW1-103008-W
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Dichlorodifluoromethane	1.0	nd		nd	nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd	nd
Vinyl chloride**	0.18	nd		nd	nd	nd	nd
Bromomethane	1.0	nd		nd	nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	98%	nd	nd	nd	nd
Methylene chloride	1.0	nd		nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd		nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Chloroform	1.0	nd		nd	nd	nd	nd
Bromochloromethane	1.0	nd		nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd
1,2-Dichloroethane (EDC)**	0.22	nd		nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd
Carbon tetrachloride**	0.42	nd		nd	nd	nd	nd
Benzene**	0.37	nd		<b>0.39 J</b>	nd	<b>0.48 J</b>	nd
Trichloroethene**	0.40	nd	78%	nd	nd	nd	nd
1,2-Dichloropropane**	0.44	nd		nd	nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd	nd
Bromodichloromethane**	0.41	nd		nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
Toluene	1.0	nd	67%	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
1,1,2-Trichloroethane**	0.29	nd		nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromochloromethane**	0.36	nd		nd	nd	nd	nd
Tetrachloroethene**	0.47	nd		nd	<b>0.57 J</b>	nd	nd
1,2-Dibromoethane (EDB)	1.0	nd		nd	nd	nd	nd
Chlorobenzene	1.0	nd	113%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
Ethylbenzene	1.0	nd		nd	nd	nd	nd
Xylenes	3.0	nd		nd	nd	nd	nd
Styrene	1.0	nd		nd	nd	nd	nd
Bromoform	1.0	nd		nd	nd	nd	nd
1,1,2,2-Tetrachloroethane**	0.33	nd		nd	nd	nd	nd
Isopropylbenzene	1.0	nd		nd	nd	nd	nd
1,2,3-Trichloropropane**	0.46	nd		nd	nd	nd	nd
Bromobenzene	1.0	nd		nd	nd	nd	nd
n-Propylbenzene	1.0	nd		nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
tert-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
sec-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
Isopropyltoluene	1.0	nd		nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
n-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane**	0.49	nd		nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd	nd
Hexachloro-1,3-butadiene**	0.29	nd		nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
Surrogate recoveries							
Dibromofluoromethane		99%	103%	111%	116%	124%	123%
Toluene-d8		88%	87%	88%	86%	88%	86%
4-Bromofluorobenzene		101%	102%	103%	109%	104%	105%

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

\*\* Compound Reported to the method detection limit

J-Estimated quantity. The result is above the MDL but below the quantitation limit.

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## Analytical Results

8260, µg/L (Water)	Reporting	MW2-103008-W	MW3-103008-W	MW4-103008-W	MW4-103008-W MS	MW4-103008-W MS	RPD
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Dichlorodifluoromethane	1.0	nd	nd	nd			
Chloromethane	1.0	nd	nd	nd			
Vinyl chloride**	0.18	nd	nd	nd			
Bromomethane	1.0	nd	nd	nd			
Chloroethane	1.0	nd	nd	nd			
Trichlorofluoromethane	1.0	nd	nd	nd			
1,1-Dichloroethene	1.0	nd	nd	nd	83%	80%	3.7%
Methylene chloride	1.0	nd	nd	nd			
trans-1,2-Dichloroethene	1.0	nd	nd	nd			
1,1-Dichloroethane	1.0	nd	nd	nd			
cis-1,2-Dichloroethene	1.0	nd	nd	nd			
2,2-Dichloropropane	1.0	nd	nd	nd			
Chloroform	1.0	nd	nd	nd			
Bromochloromethane	1.0	nd	nd	nd			
1,1,1-Trichloroethane	1.0	nd	nd	nd			
1,2-Dichloroethane (EDC)**	0.22	nd	nd	nd			
1,1-Dichloropropene	1.0	nd	nd	nd			
Carbon tetrachloride**	0.42	nd	nd	nd			
Benzene**	0.37	nd	nd	nd	111%	124%	11%
Trichloroethene**	0.40	nd	nd	nd	128%	130%	1.6%
1,2-Dichloropropane**	0.44	nd	nd	nd			
Dibromomethane	1.0	nd	nd	nd			
Bromodichloromethane**	0.41	nd	nd	nd			
cis-1,3-Dichloropropene	1.0	nd	nd	nd			
Toluene	1.0	nd	nd	nd	80%	87%	8.4%
trans-1,3-Dichloropropene	1.0	nd	nd	nd			
1,1,2-Trichloroethane**	0.29	nd	nd	nd			
1,3-Dichloropropane	1.0	nd	nd	nd			
Dibromochloromethane**	0.36	nd	nd	nd			
Tetrachloroethene**	0.47	nd	nd	nd			
1,2-Dibromoethane (EDB)	1.0	nd	nd	nd			
Chlorobenzene	1.0	nd	nd	nd	88%	100%	13%
1,1,1,2-Tetrachloroethane	1.0	nd	nd	nd			
Ethylbenzene	1.0	nd	nd	nd			
Xylenes	3.0	nd	nd	nd			
Styrene	1.0	nd	nd	nd			
Bromoform	1.0	nd	nd	nd			
1,1,2,2-Tetrachloroethane**	0.33	nd	nd	nd			
Isopropylbenzene	1.0	nd	nd	nd			
1,2,3-Trichloropropane**	0.46	nd	nd	nd			
Bromobenzene	1.0	nd	nd	nd			
n-Propylbenzene	1.0	nd	nd	nd			
2-Chlorotoluene	1.0	nd	nd	nd			
4-Chlorotoluene	1.0	nd	nd	nd			
1,3,5-Trimethylbenzene	1.0	nd	nd	nd			
tert-Butylbenzene	1.0	nd	nd	nd			
1,2,4-Trimethylbenzene	1.0	nd	nd	nd			
sec-Butylbenzene	1.0	nd	nd	nd			
1,3-Dichlorobenzene	1.0	nd	nd	nd			
1,4-Dichlorobenzene	1.0	nd	nd	nd			
Isopropyltoluene	1.0	nd	nd	nd			
1,2-Dichlorobenzene	1.0	nd	nd	nd			
n-Butylbenzene	1.0	nd	nd	nd			
1,2-Dibromo-3-Chloropropane**	0.49	nd	nd	nd			
1,2,4-Trichlorobenzene	1.0	nd	nd	nd			
Naphthalene	1.0	nd	nd	nd			
Hexachloro-1,3-butadiene**	0.29	nd	nd	nd			
1,2,3-Trichlorobenzene	1.0	nd	nd	nd			
<b>Surrogate recoveries</b>							
Dibromofluoromethane		124%	123%	127%	117%	115%	
Toluene-d8		84%	80%	84%	86%	89%	
4-Bromofluorobenzene		106%	106%	106%	106%	111%	

## Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

\*\* Compound Reported to the method detection limit

J-Estimated quantity. The result is above the MDL but below the quantitation limit.

# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
 CITY OF OLYMPIA WSDOT PROJECT  
 Client Project #0415-049-02  
 Olympia, Washington

ESN Northwest  
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 lab@esnw.com

## Analytical Results

8260, µg/L (Water)	Reporting	MB	LCS	MW5-103108-W	MW6-103108-W	MW7-103108-W	MW8-103108-W
Date analyzed	Limits	11/08/08	11/08/08	11/08/08	11/08/08	11/08/08	11/08/08
Dichlorodifluoromethane	1.0	nd		nd	nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd	nd
Vinyl chloride**	0.18	nd		nd	nd	nd	nd
Bromomethane	1.0	nd		nd	nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	71%	nd	nd	nd	nd
Methylene chloride	1.0	nd		nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd		nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Chloroform	1.0	nd		nd	nd	nd	nd
Bromochloromethane	1.0	nd		nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd
1,2-Dichloroethane (EDC)**	0.22	nd		nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd
Carbon tetrachloride**	0.42	nd		nd	nd	nd	nd
Benzene**	0.37	nd	101%	nd	<b>0.95J</b>	<b>0.70J</b>	nd
Trichloroethene**	0.40	nd	81%	nd	nd	nd	nd
1,2-Dichloropropane**	0.44	nd		nd	nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd	nd
Bromodichloromethane**	0.41	nd		nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
Toluene	1.0	nd	104%	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
1,1,2-Trichloroethane**	0.29	nd		nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromochloromethane**	0.36	nd		nd	nd	nd	nd
Tetrachloroethene**	0.47	nd		<b>0.98J</b>	<b>0.80J</b>	<b>0.76J</b>	nd
1,2-Dibromoethane (EDB)	1.0	nd		nd	nd	nd	nd
Chlorobenzene	1.0	nd	82%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
Ethylbenzene	1.0	nd		nd	nd	nd	nd
Xylenes	3.0	nd		nd	nd	nd	nd
Styrene	1.0	nd		nd	nd	nd	nd
Bromoform	1.0	nd		nd	nd	nd	nd
1,1,2,2-Tetrachloroethane**	0.33	nd		nd	nd	nd	nd
Isopropylbenzene	1.0	nd		nd	nd	nd	nd
1,2,3-Trichloropropane**	0.46	nd		nd	nd	nd	nd
Bromobenzene	1.0	nd		nd	nd	nd	nd
n-Propylbenzene	1.0	nd		nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
tert-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
sec-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
Isopropyltoluene	1.0	nd		nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
n-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane**	0.49	nd		nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd	nd
Hexachloro-1,3-butadiene**	0.29	nd		nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
<b>Surrogate recoveries</b>							
Dibromofluoromethane		91%	95%	116%	121%	124%	125%
Toluene-d8		98%	103%	83%	85%	82%	82%
4-Bromofluorobenzene		102%	103%	102%	99%	102%	103%

### Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

\*\* Compound Reported to the method detection limit

J-Estimated quantity. The result is above the MDL but below the quantitation limit

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## Analytical Results

8260, µg/L (Water)	Reporting	MW9-103108-W	MW5-103108-W MS	MW5-103108-W MSD	RPD
Date analyzed	Limits	11/08/08	11/08/08	11/08/08	
Dichlorodifluoromethane	1.0	nd			
Chloromethane	1.0	nd			
Vinyl chloride**	0.18	nd			
Bromomethane	1.0	nd			
Chloroethane	1.0	nd			
Trichlorofluoromethane	1.0	nd			
1,1-Dichloroethene	1.0	nd	82%	78%	5.0%
Methylene chloride	1.0	nd			
trans-1,2-Dichloroethene	1.0	nd			
1,1-Dichloroethane	1.0	nd			
cis-1,2-Dichloroethene	1.0	nd			
2,2-Dichloropropane	1.0	nd			
Chloroform	1.0	nd			
Bromochloromethane	1.0	nd			
1,1,1-Trichloroethane	1.0	nd			
1,2-Dichloroethane (EDC)**	0.22	nd			
1,1-Dichloropropene	1.0	nd			
Carbon tetrachloride**	0.42	nd			
Benzene**	0.37	nd	70%	67%	4.4%
Trichloroethene**	0.40	nd	74%	73%	1.4%
1,2-Dichloropropane**	0.44	nd			
Dibromomethane	1.0	nd			
Bromodichloromethane**	0.41	nd			
cis-1,3-Dichloropropene	1.0	nd			
Toluene	1.0	nd	106%	96%	9.9%
trans-1,3-Dichloropropene	1.0	nd			
1,1,2-Trichloroethane**	0.29	nd			
1,3-Dichloropropane	1.0	nd			
Dibromochloromethane**	0.36	nd			
Tetrachloroethene**	0.47	nd			
1,2-Dibromoethane (EDB)	1.0	nd			
Chlorobenzene	1.0	nd	110%	107%	2.8%
1,1,1,2-Tetrachloroethane	1.0	nd			
Ethylbenzene	1.0	nd			
Xylenes	3.0	nd			
Styrene	1.0	nd			
Bromoform	1.0	nd			
1,1,2,2-Tetrachloroethane**	0.33	nd			
Isopropylbenzene	1.0	nd			
1,2,3-Trichloropropane**	0.46	nd			
Bromobenzene	1.0	nd			
n-Propylbenzene	1.0	nd			
2-Chlorotoluene	1.0	nd			
4-Chlorotoluene	1.0	nd			
1,3,5-Trimethylbenzene	1.0	nd			
tert-Butylbenzene	1.0	nd			
1,2,4-Trimethylbenzene	1.0	nd			
sec-Butylbenzene	1.0	nd			
1,3-Dichlorobenzene	1.0	nd			
1,4-Dichlorobenzene	1.0	nd			
Isopropyltoluene	1.0	nd			
1,2-Dichlorobenzene	1.0	nd			
n-Butylbenzene	1.0	nd			
1,2-Dibromo-3-Chloropropane**	0.49	nd			
1,2,4-Trichlorobenzene	1.0	nd			
Naphthalene	1.0	nd			
Hexachloro-1,3-butadiene**	0.29	nd			
1,2,3-Trichlorobenzene	1.0	nd			
<b>Surrogate recoveries</b>					
Dibromofluoromethane		131%	112%	110%	
Toluene-d8		83%	85%	86%	
4-Bromofluorobenzene		104%	102%	101%	

### Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

\*\* Compound Reported to the method detection limit

J-Estimated quantity. The result is above the MDL but below the quantitation limit

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Analytical Results

8260, µg/L (Water)	Reporting Limits	MB	LCS	MW10-110408-W	MW11-110408-W	MW12-110408-W	MW13-110408-W	MS	MSD	RPD
Date analyzed	Limits	11/15/08	11/15/08	11/15/08	11/15/08	11/15/08	11/15/08	11/15/08	11/15/08	11/15/08
Dichlorodifluoromethane	1.0	nd		nd	nd	nd	nd			
Chloromethane	1.0	nd		nd	nd	nd	nd			
Vinyl chloride**	0.18	nd		nd	nd	nd	nd			
Bromomethane	1.0	nd		nd	nd	nd	nd			
Chloroethane	1.0	nd		nd	nd	nd	nd			
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd			
1,1-Dichloroethene	1.0	nd	95%	nd	nd	nd	nd	77%	71%	8.1%
Methylene chloride	1.0	nd		nd	nd	nd	nd			
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd			
1,1-Dichloroethane	1.0	nd		nd	nd	nd	nd			
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd			
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd			
Chloroform	1.0	nd		nd	nd	nd	nd			
Bromochloromethane	1.0	nd		nd	nd	nd	nd			
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd			
1,2-Dichloroethane (EDC)**	0.22	nd		nd	nd	nd	nd			
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd			
Carbon tetrachloride**	0.42	nd		nd	nd	nd	nd			
Benzene**	0.37	nd	134%	<b>0.40J</b>	nd	nd	nd	91%	88%	3.4%
Trichloroethene**	0.40	nd	77%	nd	nd	nd	nd	124%	100%	21%
1,2-Dichloropropane**	0.44	nd		nd	nd	nd	nd			
Dibromomethane	1.0	nd		nd	nd	nd	nd			
Bromodichloromethane**	0.41	nd		nd	nd	nd	nd			
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd			
Toluene	1.0	nd	92%	nd	nd	nd	nd	81%	76%	6.4%
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd			
1,1,2-Trichloroethane**	0.29	nd		nd	nd	nd	nd			
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd			
Dibromochloromethane**	0.36	nd		nd	nd	nd	nd			
Tetrachloroethene**	0.47	nd		nd	nd	nd	nd			
1,2-Dibromoethane (EDB)	1.0	nd		nd	nd	nd	nd			
Chlorobenzene	1.0	nd	87%	nd	nd	nd	nd	81%	73%	10%
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd			
Ethylbenzene	1.0	nd		nd	nd	nd	nd			
Xylenes	3.0	nd		nd	nd	nd	nd			
Styrene	1.0	nd		nd	nd	nd	nd			
Bromoform	1.0	nd		nd	nd	nd	nd			
1,1,2,2-Tetrachloroethane**	0.33	nd		nd	nd	nd	nd			
Isopropylbenzene	1.0	nd		nd	nd	nd	nd			
1,2,3-Trichloropropane**	0.46	nd		nd	nd	nd	nd			
Bromobenzene	1.0	nd		nd	nd	nd	nd			
n-Propylbenzene	1.0	nd		nd	nd	nd	nd			
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd			
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd			
1,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd	nd			
tert-Butylbenzene	1.0	nd		nd	nd	nd	nd			
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd	nd			
sec-Butylbenzene	1.0	nd		nd	nd	nd	nd			
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd			
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd			
Isopropyltoluene	1.0	nd		nd	nd	nd	nd			
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd			
n-Butylbenzene	1.0	nd		nd	nd	nd	nd			
1,2-Dibromo-3-Chloropropane**	0.49	nd		nd	nd	nd	nd			
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd			
Naphthalene	1.0	nd		nd	nd	nd	nd			
Hexachloro-1,3-butadiene**	0.29	nd		nd	nd	nd	nd			
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd			
<b>Surrogate recoveries</b>										
Dibromofluoromethane		95%	98%	101%	95%	99%	94%	95%	98%	
Toluene-d8		73%	77%	72%	73%	72%	72%	79%	77%	
4-Bromofluorobenzene		105%	108%	101%	102%	100%	105%	138%	103%	

Data Qualifiers and Analytical Comment:

nd - not detected at listed reporting limit  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%

\*\* Compound Reported to the method detection limit

J-Estimated quantity. The result is above the MDL but below the quantitation limit



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Analytical Results

8260, µg/L (Water)	Reporting	MB	LCS	MW14-110608-W	MW15-110608-W	MW16-110608-W	Dupe1-110608-W	Dupe2-110608-W
Date analyzed	Limits	11/15/08	11/15/08	11/15/08	11/15/08	11/15/08	11/15/08	11/15/08
Dichlorodifluoromethane	1.0	nd		nd	nd	nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd	nd	nd
Vinyl chloride**	0.18	nd		nd	nd	nd	nd	nd
Bromomethane	1.0	nd		nd	nd	nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	95%	nd	nd	nd	nd	nd
Methylene chloride	1.0	nd		nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd		nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd	nd
Chloroform	1.0	nd		nd	nd	nd	nd	nd
Bromochloromethane	1.0	nd		nd	nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)**	0.22	nd		nd	nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd	nd
Carbon tetrachloride**	0.42	nd		nd	nd	nd	nd	nd
Benzene**	0.37	nd	134%	nd	nd	nd	0.95J	0.48J
Trichloroethene**	0.40	nd	77%	nd	nd	nd	nd	nd
1,2-Dichloropropane**	0.44	nd		nd	nd	nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd	nd	nd
Bromodichloromethane**	0.41	nd		nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd	nd
Toluene	1.0	nd	92%	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd	nd
1,1,2-Trichloroethane**	0.29	nd		nd	nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd	nd
Dibromochloromethane**	0.36	nd		nd	nd	nd	nd	nd
Tetrachloroethene**	0.47	nd		0.49J	nd	0.50J	0.90J	0.71J
1,2-Dibromoethane (EDB)	1.0	nd		nd	nd	nd	nd	nd
Chlorobenzene	1.0	nd	87%	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd	nd
Ethylbenzene	1.0	nd		nd	nd	nd	nd	nd
Xylenes	3.0	nd		nd	nd	nd	nd	nd
Styrene	1.0	nd		nd	nd	nd	nd	nd
Bromoform	1.0	nd		nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane**	0.33	nd		nd	nd	nd	nd	nd
Isopropylbenzene	1.0	nd		nd	nd	nd	nd	nd
1,2,3-Trichloropropane**	0.46	nd		nd	nd	nd	nd	nd
Bromobenzene	1.0	nd		nd	nd	nd	nd	nd
n-Propylbenzene	1.0	nd		nd	nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd	nd	nd
tert-Butylbenzene	1.0	nd		nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd	nd	nd
sec-Butylbenzene	1.0	nd		nd	nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
Isopropyltoluene	1.0	nd		nd	nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
n-Butylbenzene	1.0	nd		nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane**	0.49	nd		nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene**	0.29	nd		nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd	nd
<b>Surrogate recoveries</b>								
Dibromofluoromethane		95%	98%	91%	95%	96%	95%	96%
Toluene-d8		73%	77%	71%	72%	71%	68%	69%
4-Bromofluorobenzene		105%	108%	95%	98%	98%	96%	95%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%  
 \*\* Compound Reported to the method detection limit  
 J-Estimated quantity. The result is above the MDL but below the quantitation limit.

**ESN NORTHWEST CHEMISTRY LABORATORY**

GeoEngineers  
 CITY OF OLYMPIA WSDOT PROJECT  
 Client Project #0415-049-02  
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Analytical Results

<b>8260, µg/L (Water)</b>	Reporting	MS	MSD	RPD
Date analyzed	Limits	11/15/08	11/15/08	11/15/08
Dichlorodifluoromethane	1.0			
Chloromethane	1.0			
Vinyl chloride**	0.18			
Bromomethane	1.0			
Chloroethane	1.0			
Trichlorofluoromethane	1.0			
1,1-Dichloroethene	1.0	77%	71%	8.1%
Methylene chloride	1.0			
trans-1,2-Dichloroethene	1.0			
1,1-Dichloroethane	1.0			
cis-1,2-Dichloroethene	1.0			
2,2-Dichloropropane	1.0			
Chloroform	1.0			
Bromochloromethane	1.0			
1,1,1-Trichloroethane	1.0			
1,2-Dichloroethane (EDC)**	0.22			
1,1-Dichloropropene	1.0			
Carbon tetrachloride**	0.42			
Benzene**	0.37	91%	88%	3.4%
Trichloroethene**	0.40	124%	100%	21%
1,2-Dichloropropane**	0.44			
Dibromomethane	1.0			
Bromodichloromethane**	0.41			
cis-1,3-Dichloropropene	1.0			
Toluene	1.0	81%	76%	6.4%
trans-1,3-Dichloropropene	1.0			
1,1,2-Trichloroethane**	0.29			
1,3-Dichloropropane	1.0			
Dibromochloromethane**	0.36			
Tetrachloroethene**	0.47			
1,2-Dibromoethane (EDB)	1.0			
Chlorobenzene	1.0	81%	73%	10%
1,1,1,2-Tetrachloroethane	1.0			
Ethylbenzene	1.0			
Xylenes	3.0			
Styrene	1.0			
Bromoform	1.0			
1,1,2,2-Tetrachloroethane**	0.33			
Isopropylbenzene	1.0			
1,2,3-Trichloropropane**	0.46			
Bromobenzene	1.0			
n-Propylbenzene	1.0			
2-Chlorotoluene	1.0			
4-Chlorotoluene	1.0			
1,3,5-Trimethylbenzene	1.0			
tert-Butylbenzene	1.0			
1,2,4-Trimethylbenzene	1.0			
sec-Butylbenzene	1.0			
1,3-Dichlorobenzene	1.0			
1,4-Dichlorobenzene	1.0			
Isopropyltoluene	1.0			
1,2-Dichlorobenzene	1.0			
n-Butylbenzene	1.0			
1,2-Dibromo-3-Chloropropane**	0.49			
1,2,4-Trichlorobenzene	1.0			
Naphthalene	1.0			
Hexachloro-1,3-butadiene**	0.29			
1,2,3-Trichlorobenzene	1.0			
<hr/>				
Surrogate recoveries				
Dibromofluoromethane		95%	98%	
Toluene-d8		79%	77%	
4-Bromofluorobenzene		138%	103%	

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits  
 Acceptable Recovery limits: 65% TO 135%  
 Acceptable RPD limit: 35%  
 \*\* Compound Reported to the method detection limit  
 J-Estimated quantity. The result is above the MDL but below the quantitation limit.

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## Analytical Results

PAH SIM (8270), mg/kg	MTH BLK	LCS	PP20-103008-3	PP20-103008-9	PP19-103008-3	
Matrix	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08	
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	
Moisture, %			6%	21%	13%	
Acenaphthene	0.01	nd	107%	nd	nd	<b>0.35</b>
Acenaphthylene	0.01	nd		nd	nd	<b>0.10</b>
Anthracene	0.01	nd		<b>0.03</b>	nd	<b>2.0</b>
Benzo(a)anthracene	0.01	nd		nd	nd	<b>1.3</b>
Benzo(a)pyrene	0.01	nd	63%	nd	nd	<b>4.2</b>
Benzo(b)fluoranthene	0.01	nd		nd	nd	<b>0.75</b>
Benzo(ghi)perylene	0.01	nd		nd	nd	<b>1.8</b>
Benzo(k)fluoranthene	0.01	nd		nd	nd	<b>2.3</b>
Chrysene*	0.01	nd		nd	nd	<b>4.3</b>
Dibenzo(a,h)anthracene	0.01	nd		nd	nd	<b>0.26</b>
Fluorene	0.01	nd		nd	nd	<b>1.1</b>
Fluoranthene	0.01	nd	87%	<b>0.14</b>	nd	<b>8.5</b>
Indeno(1,2,3-cd)pyrene	0.01	nd		nd	nd	<b>2.6</b>
Naphthalene	0.01	nd		nd	nd	nd
1-Methylnaphthalene	0.01	nd		nd	nd	<b>0.07</b>
2-Methylnaphthalene	0.01	nd		nd	nd	<b>0.07</b>
Phenanthrene	0.01	nd		<b>0.20</b>	nd	<b>8.2</b>
Pyrene	0.01	nd		<b>0.18</b>	nd	<b>7.5</b>
Total Carcinogens				nd	nd	nd
Surrogate recoveries						
2-Fluorobiphenyl		94%	91%	92%	80%	88%
p-Terphenyl-d14		95%	96%	131%	66%	91%

## Data Qualifiers and Analytical Comment

\* - Carcinogenic Analyte  
 nd - not detected at listed reporting limit  
 na - not analyzed  
 C - coelution with sample peak  
 M - matrix interference  
 J - estimated value  
 Results reported on dry-weight basis  
 Acceptable Recovery limits: 50% TO 150%  
 Acceptable RPD limit: 35%

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Analytical Results		DUP			
<b>PAH SIM (8270), mg/kg</b>		<b>PP19-103008-6</b>	<b>PP19-103008-6</b>	<b>PP18-103008-3</b>	<b>PP18-103008-10</b>
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08
Moisture, %		16%	16%	8%	48%
Acenaphthene	0.01	nd	nd	nd	nd
Acenaphthylene	0.01	nd	nd	nd	nd
Anthracene	0.01	nd	nd	nd	<b>0.18</b>
Benzo(a)anthracene	0.01	nd	nd	nd	nd
Benzo(a)pyrene	0.01	nd	nd	nd	nd
Benzo(b)fluoranthene	0.01	nd	nd	nd	nd
Benzo(ghi)perylene	0.01	nd	nd	nd	nd
Benzo(k)fluoranthene	0.01	nd	nd	nd	nd
Chrysene*	0.01	nd	nd	nd	nd
Dibenzo(a,h)anthracene	0.01	nd	nd	nd	nd
Fluorene	0.01	nd	nd	nd	nd
Fluoranthene	0.01	nd	nd	nd	<b>1.2</b>
Indeno(1,2,3-cd)pyrene	0.01	nd	nd	nd	nd
Naphthalene	0.01	nd	nd	nd	nd
1-Methylnaphthalene	0.01	nd	nd	nd	nd
2-Methylnaphthalene	0.01	nd	nd	nd	nd
Phenanthrene	0.01	nd	nd	nd	<b>0.52</b>
Pyrene	0.01	nd	nd	nd	<b>1.2</b>
Total Carcinogens		nd	nd	nd	nd
Surrogate recoveries					
2-Fluorobiphenyl		84%	79%	80%	113%
p-Terphenyl-d14		68%	65%	68%	86%
					124%

**Data Qualifiers and Analytical Comment**

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 Acceptable Recovery limits: 50% TO 150%  
 Acceptable RPD limit: 35%

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Analytical Results

<b>PAH SIM (8270), mg/kg</b>		<b>MW13-103008-3</b>	<b>MW13-103008-8</b>	<b>MW11-103008-3</b>	<b>MW11-103008-8</b>
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08
Moisture, %		11%	15%	18%	17%
Acenaphthene	0.01	nd	nd	nd	nd
Acenaphthylene	0.01	nd	nd	nd	nd
Anthracene	0.01	nd	nd	nd	nd
Benzo(a)anthracene	0.01	nd	nd	nd	nd
Benzo(a)pyrene	0.01	nd	nd	nd	nd
Benzo(b)fluoranthene	0.01	nd	nd	nd	nd
Benzo(ghi)perylene	0.01	nd	nd	nd	nd
Benzo(k)fluoranthene	0.01	nd	nd	nd	nd
Chrysene*	0.01	nd	nd	nd	nd
Dibenzo(a,h)anthracene	0.01	nd	nd	nd	nd
Fluorene	0.01	nd	nd	nd	nd
Fluoranthene	0.01	nd	nd	nd	nd
Indeno(1,2,3-cd)pyrene	0.01	nd	nd	nd	nd
Naphthalene	0.01	nd	nd	nd	nd
1-Methylnaphthalene	0.01	nd	nd	nd	nd
2-Methylnaphthalene	0.01	nd	nd	nd	nd
Phenanthrene	0.01	nd	nd	nd	nd
Pyrene	0.01	nd	nd	nd	nd
Total Carcinogens		nd	nd	nd	nd
<b>Surrogate recoveries</b>					
2-Fluorobiphenyl		81%	74%	89%	82%
p-Terphenyl-d14		65%	66%	72%	67%

Data Qualifiers and Analytical Comment

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Analytical Results

PAH SIM (8270), mg/kg		MS	MSD	RPD
Matrix	Soil	Soil	Soil	
Date extracted	Reporting	11/06/08	11/06/08	
Date analyzed	Limits	11/06/08	11/06/08	
Moisture, %				
Acenaphthene	0.01	116%	113%	3%
Acenaphthylene	0.01			
Anthracene	0.01			
Benzo(a)anthracene	0.01			
Benzo(a)pyrene	0.01			
Benzo(b)fluoranthene	0.01			
Benzo(ghi)perylene	0.01			
Benzo(k)fluoranthene	0.01			
Chrysene*	0.01			
Dibenzo(a,h)anthracene	0.01			
Fluorene	0.01			
Fluoranthene	0.01			
Indeno(1,2,3-cd)pyrene	0.01			
Naphthalene	0.01			
1-Methylnaphthalene	0.01			
2-Methylnaphthalene	0.01			
Phenanthrene	0.01			
Pyrene	0.01	90%	94%	4%

Total Carcinogens

Surrogate recoveries

2-Fluorobiphenyl	87%	92%
p-Terphenyl-d14	79%	82%

Data Qualifiers and Analytical Comment

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 C - coelution with sample peak  
 M - matrix interference  
 J - estimated value  
 Results reported on dry-weight basis  
 Acceptable Recovery limits: 50% TO 150%  
 Acceptable RPD limit: 35%

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Analytical Results

<b>PAH SIM (8270), ug/L</b>	<b>MTH BLK</b>	<b>LCS</b>	<b>PP20-103008-W</b>	<b>PP19-103008-W</b>	<b>PP18-103008-W</b>
Matrix	Water	Water	Water	Water	Water
Date extractec	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzec	Limits	12/01/08	12/01/08	12/01/08	12/01/08
Acenaphthene	0.02	nd	114%	nd	nd
Acenaphthylene	0.02	nd		nd	nd
Anthracene	0.02	nd		nd	nd
Benzo(a)anthracene*	0.02	nd		nd	nd
Benzo(a)pyrene*	0.02	nd	104%	nd	nd
Benzo(b)fluoranthene*	0.02	nd		nd	nd
Benzo(ghi)perylene	0.02	nd		nd	nd
Benzo(k)fluoranthene*	0.02	nd		nd	nd
Chrysene*	0.02	nd		nd	nd
Dibenzo(a,h)anthracene*	0.02	nd		nd	nd
Fluorene	0.02	nd		nd	nd
Fluoranthene	0.02	nd	126%	nd	nd
Indeno(1,2,3-cd)pyrene*	0.02	nd		nd	nd
Naphthalene	0.02	nd		nd	nd
1-Methylnaphthalene	0.02	nd		nd	nd
2-Methylnaphthalene	0.02	nd		nd	nd
Phenanthrene	0.02	nd		nd	nd
Pyrene	0.02	nd		nd	nd
Total Carcinogens				nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		121%	130%	108%	96%
p-Terphenyl-d14		126%	134%	120%	119%

Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte  
 nd - not detected at listed reporting limits  
 na - not analyzed  
 C - coelution with sample peaks  
 M - matrix interference  
 J - estimated value  
 Results reported on dry-weight basis  
 Acceptable Recovery limits: 50% TO 150%  
 Acceptable RPD limit: 35%

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Analytical Results

<b>PAH SIM (8270), ug/L</b>	<b>MW1-103008-W</b>	<b>MW2-103008-W</b>	<b>MW3-103008-W</b>	<b>MW4-103008-W</b>
Matrix	Water	Water	Water	Water
Date extractec	Reporting	11/06/08	11/06/08	11/06/08
Date analyzec	Limits	12/01/08	12/01/08	12/01/08
Acenaphthene	0.02	nd	nd	nd
Acenaphthylene	0.02	nd	nd	nd
Anthracene	0.02	nd	nd	nd
Benzo(a)anthracene*	0.02	nd	nd	nd
Benzo(a)pyrene*	0.02	nd	nd	nd
Benzo(b)fluoranthene*	0.02	nd	nd	nd
Benzo(ghi)perylene	0.02	nd	nd	nd
Benzo(k)fluoranthene*	0.02	nd	nd	nd
Chrysene*	0.02	nd	nd	nd
Dibenzo(a,h)anthracene*	0.02	nd	nd	nd
Fluorene	0.02	nd	nd	nd
Fluoranthene	0.02	nd	nd	nd
Indeno(1,2,3-cd)pyrene*	0.02	nd	nd	nd
Naphthalene	0.02	nd	nd	nd
1-Methylnaphthalene	0.02	nd	nd	nd
2-Methylnaphthalene	0.02	nd	nd	nd
Phenanthrene	0.02	nd	nd	nd
Pyrene	0.02	nd	nd	nd
Total Carcinogens		nd	nd	nd
Surrogate recoveries:				
2-Fluorobiphenyl		127%	95%	94%
p-Terphenyl-d14		105%	126%	108%

Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte  
 nd - not detected at listed reporting limits  
 na - not analyzed  
 C - coelution with sample peaks  
 M - matrix interference  
 J - estimated value  
 Results reported on dry-weight basis  
 Acceptable Recovery limits: 50% TO 150%  
 Acceptable RPD limit: 35%



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## Analytical Results

PAH SIM (8270), ug/L		MS	MSD	RPD
Matrix	Water	Water	Water	
Date extractec	Reporting	11/06/08	11/06/08	
Date analyzec	Limits	12/01/08	12/01/08	
Acenaphthene	0.02	120%	122%	2%
Acenaphthylene	0.02			
Anthracene	0.02			
Benzo(a)anthracene*	0.02			
Benzo(a)pyrene*	0.02			
Benzo(b)fluoranthene*	0.02			
Benzo(ghi)perylene	0.02			
Benzo(k)fluoranthene*	0.02			
Chrysene*	0.02			
Dibenzo(a,h)anthracene*	0.02			
Fluorene	0.02			
Fluoranthene	0.02			
Indeno(1,2,3-cd)pyrene*	0.02			
Naphthalene	0.02			
1-Methylnaphthalene	0.02			
2-Methylnaphthalene	0.02			
Phenanthrene	0.02			
Pyrene	0.02	110%	120%	9%

Total Carcinogens

## Surrogate recoveries:

2-Fluorobiphenyl	81%	93%
p-Terphenyl-d14	103%	122%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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Analytical Results

<b>PAH SIM (8270), ug/L</b>	<b>MTH BLK</b>	<b>LCS</b>	<b>MW10-110408-W</b>	<b>MW11-110408-W</b>	<b>MW12-110408-W</b>
Matrix	Water	Water	Water	Water	Water
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	12/02/08	12/02/08	12/02/08	12/02/08
Acenaphthene	0.02	nd	107%	nd	nd
Acenaphthylene	0.02	nd		nd	nd
Anthracene	0.02	nd		nd	nd
Benzo(a)anthracene*	0.02	nd		nd	nd
Benzo(a)pyrene*	0.02	nd	104%	nd	nd
Benzo(b)fluoranthene*	0.02	nd		nd	nd
Benzo(ghi)perylene	0.02	nd		nd	nd
Benzo(k)fluoranthene*	0.02	nd		nd	nd
Chrysene*	0.02	nd		nd	nd
Dibenzo(a,h)anthracene*	0.02	nd		nd	nd
Fluorene	0.02	nd		nd	nd
Fluoranthene	0.02	nd	126%	nd	nd
Indeno(1,2,3-cd)pyrene*	0.02	nd		nd	nd
Naphthalene	0.02	nd		nd	nd
1-Methylnaphthalene	0.02	nd		nd	nd
2-Methylnaphthalene	0.02	nd		nd	nd
Phenanthrene	0.02	nd		nd	nd
Pyrene	0.02	nd		nd	nd
Total Carcinogens				nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		121%	130%	108%	111%
p-Terphenyl-d14		126%	133%	127%	119%

Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte  
 nd - not detected at listed reporting limits  
 na - not analyzed  
 C - coelution with sample peaks  
 M - matrix interference  
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 Results reported on dry-weight basis  
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 Acceptable RPD limit: 35%

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Analytical Results

PAH SIM (8270), ug/L	MW13-110408-W	MS	MSD	RPD	
Matrix	Water	Water	Water	Water	
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	
Date analyzed	Limits	12/02/08	12/02/08	12/02/08	
Acenaphthene	0.02	nd	120%	122%	2%
Acenaphthylene	0.02	nd			
Anthracene	0.02	nd			
Benzo(a)anthracene*	0.02	nd			
Benzo(a)pyrene*	0.02	nd			
Benzo(b)fluoranthene*	0.02	nd			
Benzo(ghi)perylene	0.02	nd			
Benzo(k)fluoranthene*	0.02	nd			
Chrysene*	0.02	nd			
Dibenzo(a,h)anthracene*	0.02	nd			
Fluorene	0.02	nd			
Fluoranthene	0.02	nd			
Indeno(1,2,3-cd)pyrene*	0.02	nd			
Naphthalene	0.02	nd			
1-Methylnaphthalene	0.02	nd			
2-Methylnaphthalene	0.02	nd			
Phenanthrene	0.02	nd			
Pyrene	0.02	nd	110%	120%	9%
Total Carcinogens		nd			
Surrogate recoveries:					
2-Fluorobiphenyl		102%	81%	93%	
p-Terphenyl-d14		121%	103%	122%	

Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte  
 nd - not detected at listed reporting limits  
 na - not analyzed  
 C - coelution with sample peaks  
 M - matrix interference  
 J - estimated value  
 Results reported on dry-weight basis  
 Acceptable Recovery limits: 50% TO 150%  
 Acceptable RPD limit: 35%

# ESN NORTHWEST CHEMISTRY LABORATORY

GeoEngineers  
 CITY OF OLYMPIA - WSDOT PROJECT  
 Client Project #0415-049-02  
 Olympia, Washington

ESN Northwest  
 1210 Eastside Street SE Suite 200  
 Olympia, WA 98501  
 (360) 459-4670 (360) 459-3432 Fax  
 lab@esnnw.com

## Analytical Results

PAH SIM (8270), ug/L	MTH BLK	LCS	MW14-110608-W	MW15-110608-W	MW16-110608-W
Matrix	Water	Water	Water	Water	Water
Date extracted	Reporting	11/12/08	11/12/08	11/12/08	11/12/08
Date analyzed	Limits	12/04/08	12/04/08	12/04/08	12/04/08
Acenaphthene	0.02	nd	107%	nd	nd
Acenaphthylene	0.02	nd		nd	nd
Anthracene	0.02	nd		nd	nd
Benzo(a)anthracene*	0.02	nd		nd	nd
Benzo(a)pyrene*	0.02	nd	104%	nd	nd
Benzo(b)fluoranthene*	0.02	nd		nd	nd
Benzo(ghi)perylene	0.02	nd		nd	nd
Benzo(k)fluoranthene*	0.02	nd		nd	nd
Chrysene*	0.02	nd		nd	nd
Dibenzo(a,h)anthracene*	0.02	nd		nd	nd
Fluorene	0.02	nd		nd	nd
Fluoranthene	0.02	nd	126%	nd	nd
Indeno(1,2,3-cd)pyrene*	0.02	nd		nd	nd
Naphthalene	0.02	nd		nd	nd
1-Methylnaphthalene	0.02	nd		nd	nd
2-Methylnaphthalene	0.02	nd		nd	nd
Phenanthrene	0.02	nd		nd	nd
Pyrene	0.02	nd		nd	nd
Total Carcinogens				nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl	121%	130%	131%	127%	99%
p-Terphenyl-d14	126%	133%	125%	124%	107%

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), ug/L	Dupe1-110608-W		Dupe2-110608-W		MS	MSD	RPD
Matrix	Water	Water	Water	Water	Water	Water	
Date extracted	Reporting	11/12/08	11/12/08	11/12/08	11/12/08	11/12/08	
Date analyzed	Limits	12/04/08	12/04/08	12/04/08	12/04/08	12/04/08	
Acenaphthene	0.02	nd	nd	116%	119%	3%	
Acenaphthylene	0.02	nd	nd				
Anthracene	0.02	nd	nd				
Benzo(a)anthracene*	0.02	nd	nd				
Benzo(a)pyrene*	0.02	nd	nd				
Benzo(b)fluoranthene*	0.02	nd	nd				
Benzo(ghi)perylene	0.02	nd	nd				
Benzo(k)fluoranthene*	0.02	nd	nd				
Chrysene*	0.02	nd	nd				
Dibenzo(a,h)anthracene*	0.02	nd	nd				
Fluorene	0.02	nd	nd				
Fluoranthene	0.02	nd	nd				
Indeno(1,2,3-cd)pyrene*	0.02	nd	nd				
Naphthalene	0.02	nd	nd				
1-Methylnaphthalene	0.02	nd	nd				
2-Methylnaphthalene	0.02	nd	nd				
Phenanthrene	0.02	nd	nd				
Pyrene	0.02	nd	nd	108%	116%	7%	
Total Carcinogens		nd	nd				
Surrogate recoveries:							
2-Fluorobiphenyl		126%	121%	81%	93%		
p-Terphenyl-d14		121%	110%	103%	122%		

## Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), mg/kg		MTH BLK	LCS	MW10-103108-3	MW10-103108-7	MW12-103108-4.5
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08
Moisture, %				7%	20%	18%
Acenaphthene	0.01	nd	107%	nd	nd	nd
Acenaphthylene	0.01	nd		nd	nd	nd
Anthracene	0.01	nd		nd	nd	nd
Benzo(a)anthracene*	0.01	nd		nd	nd	nd
Benzo(a)pyrene*	0.01	nd	63%	nd	nd	nd
Benzo(b)fluoranthene*	0.01	nd		nd	nd	nd
Benzo(ghi)perylene	0.01	nd		nd	nd	nd
Benzo(k)fluoranthene*	0.01	nd		nd	nd	nd
Chrysene*	0.01	nd		nd	nd	nd
Dibenzo(a,h)anthracene*	0.01	nd		nd	nd	nd
Fluorene	0.01	nd		nd	nd	nd
Fluoranthene	0.01	nd	87%	nd	nd	nd
Indeno(1,2,3-cd)pyrene*	0.01	nd		nd	nd	nd
Naphthalene	0.01	nd		nd	nd	nd
1-Methylnaphthalene	0.01	nd		nd	nd	nd
2-Methylnaphthalene	0.01	nd		nd	nd	nd
Phenanthrene	0.01	nd		nd	nd	nd
Pyrene	0.01	nd		nd	nd	nd
Total Carcinogens				nd	nd	nd
Surrogate recoveries:						
2-Fluorobiphenyl		94%	91%	74%	97%	91%
p-Terphenyl-d14		95%	96%	70%	77%	76%

## Data Qualifiers and Analytical Comments

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M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), mg/kg		MW12-103108-8	MW16-103108-5	MW16-103108-10	MW15-103108-3
Matrix	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08
Moisture, %		18%	15%	28%	8%
Acenaphthene	0.01	nd	nd	nd	nd
Acenaphthylene	0.01	nd	nd	nd	nd
Anthracene	0.01	nd	nd	nd	nd
Benzo(a)anthracene*	0.01	nd	nd	nd	nd
Benzo(a)pyrene*	0.01	nd	nd	nd	nd
Benzo(b)fluoranthene*	0.01	nd	nd	nd	nd
Benzo(ghi)perylene	0.01	nd	nd	nd	nd
Benzo(k)fluoranthene*	0.01	nd	nd	nd	nd
Chrysene*	0.01	nd	nd	nd	nd
Dibenzo(a,h)anthracene*	0.01	nd	nd	nd	nd
Fluorene	0.01	nd	nd	nd	nd
Fluoranthene	0.01	nd	nd	nd	<b>0.08</b>
Indeno(1,2,3-cd)pyrene*	0.01	nd	nd	nd	nd
Naphthalene	0.01	nd	nd	nd	<b>0.24</b>
1-Methylnaphthalene	0.01	nd	nd	nd	<b>0.05</b>
2-Methylnaphthalene	0.01	nd	nd	nd	<b>0.14</b>
Phenanthrene	0.01	nd	nd	nd	nd
Pyrene	0.01	nd	nd	nd	<b>0.08</b>
Total Carcinogens		nd	nd	nd	nd
Surrogate recoveries:					
2-Fluorobiphenyl		108%	99%	100%	89%
p-Terphenyl-d14		90%	83%	81%	63%

## Data Qualifiers and Analytical Comments

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J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), mg/kg		MW15-103108-5	MW14-103108-4	MW14-103108-8	MS	MSD	RPD
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	
Date analyzed	Limits	11/06/08	11/06/08	11/06/08	11/06/08	11/06/08	
Moisture, %		15%	23%	13%			
Acenaphthene	0.01	nd	0.07	0.05	116%	113%	3%
Acenaphthylene	0.01	nd	nd	nd			
Anthracene	0.01	nd	nd	nd			
Benzo(a)anthracene*	0.01	nd	nd	nd			
Benzo(a)pyrene*	0.01	nd	nd	nd			
Benzo(b)fluoranthene*	0.01	nd	nd	nd			
Benzo(ghi)perylene	0.01	nd	nd	nd			
Benzo(k)fluoranthene*	0.01	nd	nd	nd			
Chrysene*	0.01	nd	nd	nd			
Dibenzo(a,h)anthracene*	0.01	nd	nd	nd			
Fluorene	0.01	nd	nd	nd			
Fluoranthene	0.01	nd	nd	nd			
Indeno(1,2,3-cd)pyrene*	0.01	nd	nd	nd			
Naphthalene	0.01	nd	nd	nd			
1-Methylnaphthalene	0.01	nd	nd	nd			
2-Methylnaphthalene	0.01	nd	nd	nd			
Phenanthrene	0.01	nd	nd	nd			
Pyrene	0.01	nd	nd	nd	90%	94%	4%
Total Carcinogens		nd	nd	nd			
Surrogate recoveries:							
2-Fluorobiphenyl		99%	86%	97%	87%	92%	
p-Terphenyl-d14		76%	70%	80%	79%	82%	

## Data Qualifiers and Analytical Comments

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Acceptable RPD limit: 35%



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## Analytical Results

PAH SIM (8270), ug/L		MTH BLK	LCS	MW5-103108-W	MW6-103108-W	MW7-103108-W
Matrix	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	11/05/08	11/05/08	11/05/08	11/05/08	11/05/08
Date analyzed	Limits	12/02/08	12/02/08	12/02/08	12/02/08	12/02/08
Acenaphthene	0.02	nd	107%	nd	nd	nd
Acenaphthylene	0.02	nd		nd	nd	nd
Anthracene	0.02	nd		nd	nd	nd
Benzo(a)anthracene	0.02	nd		nd	nd	nd
Benzo(a)pyrene	0.02	nd	104%	nd	nd	nd
Benzo(b)fluoranthene	0.02	nd		nd	nd	nd
Benzo(ghi)perylene	0.02	nd		nd	nd	nd
Benzo(k)fluoranthene	0.02	nd		nd	nd	nd
Chrysene*	0.02	nd		nd	nd	nd
Dibenzo(a,h)anthracene	0.02	nd		nd	nd	nd
Fluorene	0.02	nd		nd	nd	nd
Fluoranthene	0.02	nd	126%	nd	nd	nd
Indeno(1,2,3-cd)pyrene	0.02	nd		nd	nd	nd
Naphthalene	0.02	nd		nd	nd	nd
1-Methylnaphthalene	0.02	nd		nd	nd	nd
2-Methylnaphthalene	0.02	nd		nd	nd	nd
Phenanthrene	0.02	nd		nd	nd	nd
Pyrene	0.02	nd		nd	nd	nd
Total Carcinogens				nd	nd	nd
Surrogate recoveries						
2-Fluorobiphenyl		121%	130%	118%	120%	131%
p-Terphenyl-d14		126%	133%	105%	119%	95%

## Data Qualifiers and Analytical Comment

\* - Carcinogenic Analyte

nd - not detected at listed reporting limit

na - not analyzed

C - coelution with sample peak

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

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## Analytical Results

PAH SIM (8270), ug/L	MW8-103108-W	MW9-103108-W	MS	MSD	RPD	
Matrix	Water	Water	Water	Water	Water	
Date extracted	Reporting	11/05/08	11/05/08	11/05/08	11/05/08	
Date analyzed	Limits	12/02/08	12/02/08	12/02/08	12/02/08	
Acenaphthene	0.02	nd	nd	120%	122%	2%
Acenaphthylene	0.02	nd	nd			
Anthracene	0.02	nd	nd			
Benzo(a)anthracene	0.02	nd	nd			
Benzo(a)pyrene	0.02	nd	nd			
Benzo(b)fluoranthene	0.02	nd	nd			
Benzo(ghi)perylene	0.02	nd	nd			
Benzo(k)fluoranthene	0.02	nd	nd			
Chrysene*	0.02	nd	nd			
Dibenzo(a,h)anthracene	0.02	nd	nd			
Fluorene	0.02	nd	nd			
Fluoranthene	0.02	nd	nd			
Indeno(1,2,3-cd)pyrene	0.02	nd	nd			
Naphthalene	0.02	nd	nd			
1-Methylnaphthalene	0.02	nd	nd			
2-Methylnaphthalene	0.02	nd	nd			
Phenanthrene	0.02	nd	nd			
Pyrene	0.02	nd	nd	110%	120%	9%
Total Carcinogens		nd	nd			
Surrogate recoveries						
2-Fluorobiphenyl		131%	133%	81%	93%	
p-Terphenyl-d14		133%	114%	103%	122%	

## Data Qualifiers and Analytical Comment

\* - Carcinogenic Analyte

nd - not detected at listed reporting limit

na - not analyzed

C - coelution with sample peak

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

**APPENDIX G**  
***REPORT LIMITATIONS AND GUIDELINES FOR USE***

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## APPENDIX G REPORT LIMITATIONS AND GUIDELINES FOR USE<sup>1</sup>

This appendix provides information to help you manage your risks with respect to the use of this report.

### **ENVIRONMENTAL SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES, PERSONS AND PROJECTS**

This report has been prepared for use by the City of Olympia. This report may be made available to other agencies for review. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except the City of Olympia should rely on this environmental report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

### **THIS ENVIRONMENTAL REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS**

This Remedial Investigation (RI) has been prepared for the property located at 318 State Avenue NE in Olympia, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

### **RELIANCE CONDITIONS FOR THIRD PARTIES**

If a lending agency or other parties intend to place legal reliance on the product of our services, we require that those parties indicate in writing their acknowledgement that the scope of services provided, and the general conditions under which the services were rendered including the limitation of professional liability, are understood and accepted by them. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

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<sup>1</sup> Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; [www.asfe.org](http://www.asfe.org).

## **ENVIRONMENTAL REGULATIONS ARE ALWAYS EVOLVING**

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

## **SUBSURFACE CONDITIONS CAN CHANGE**

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or ground water fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

## **TOPSOIL**

For the purposes of this report, we consider topsoil to consist of generally fine-grained soil with an appreciable amount of organic matter based on visual examination, and to be unsuitable for direct support of the proposed improvements. However, the organic content and other mineralogical and gradational characteristics used to evaluate the suitability of soil for use in landscaping and agricultural purposes was not determined, nor considered in our analyses. Therefore, the information and recommendations in this report, and our logs and descriptions should not be used as a basis for estimating the volume of topsoil available for such purposes.

## **MOST ENVIRONMENTAL FINDINGS ARE PROFESSIONAL OPINIONS**

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

## **DO NOT REDRAW THE EXPLORATION LOGS**

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

## **READ THESE PROVISIONS CLOSELY**

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory “limitations”

provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these “Report Limitations and Guidelines for Use” apply to your project or site.

### **GEOTECHNICAL, GEOLOGIC AND GEOENVIRONMENTAL REPORTS SHOULD NOT BE INTERCHANGED**

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; for example, about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

### **BIOLOGICAL POLLUTANTS**

GeoEngineers’ Scope of Work specifically excludes the investigation, detection, prevention, or assessment of the presence of Biological Pollutants in or around any structure. Accordingly, this report includes no interpretations, recommendations, findings, or conclusions for the purpose of detecting, preventing, assessing, or abating Biological Pollutants. The term “Biological Pollutants” includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.