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REMEDIAL INVESTIGATION REPORT

Property:
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington 98201

Ecology Facility ID: 54678156

Prepared for:
TOC Holdings Co.
2737 West Commodore Way
Seattle, Washington 98199

Report Date:
March 20, 2013

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Seattle, Washington 98199

Project No.: 0440-002

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March 20, 2013

SoundEarth Strategies

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ACRONYMS AND ABBREVIATIONS

ASARCO	American Smelting and Refining Company
bgs	below ground surface
BMU	Broadway Mixed Use
BTEX	benzene, toluene, ethylbenzene, and total xylenes
COC	chemical of concern
cPAH	carcinogenic polycyclic aromatic hydrocarbons
CSM	conceptual site model
DPE	dual-phase extraction
DRPH	diesel-range petroleum hydrocarbons
Ecology	Washington State Department of Ecology
EDB	ethylene dibromide (1,2-dibromoethane)
EDC	ethylene dichloride (1,2-dicholoroethane)
EPA	U.S. Environmental Protection Agency
EPI	Environmental Partners Inc.
F&BI	Friedman & Bruya, Inc.
GEI	GeoEngineers Inc.
GRPH	gasoline-range petroleum hydrocarbons
LNAPL	light non-aqueous phase liquids
MTBE	methyl tertiary-butyl ether
MTCA	Washington State Model Toxics Control Act
ORPH	oil-range petroleum hydrocarbons
PCB	polychlorinated biphenyl
PCS	petroleum-contaminated soil

ACRONYMS AND ABBREVIATIONS (CONTINUED)

the Property	851 North Broadway, Everett, Washington
RI	remedial investigation
ROW	right-of-way
SES	Sound Environmental Strategies Corporation
Site	petroleum-contaminated soil and groundwater beneath the central and western portions of the Property and the adjacent North Broadway right-of-way
SoundEarth	SoundEarth Strategies, Inc., formerly known as Sound Environmental Strategies Corporation
TEE	Terrestrial Ecological Evaluation
USCS	United Soil Classification System
UST	underground storage tank
VOC	volatile organic compound
WAC	Washington Administrative Code

EXECUTIVE SUMMARY

SoundEarth Strategies, Inc. has prepared this Remedial Investigation Report on behalf of TOC Holdings Co. for TOC Holdings Co. Facility No. 01-169, located at 851 North Broadway in Everett, Washington (the Property). This Remedial Investigation Report was prepared for submittal to the Washington State Department of Ecology, and it was developed to meet the general requirements of a remedial investigation as defined by the Washington State Model Toxics Control Act Cleanup Regulation in Section 350 of Chapter 340 of Title 173 of the Washington Administrative Code.

The Property currently operates as a retail shopping center. A retail gasoline service station operated on the Property from 1959 to 2003. Historical records indicate that a 500-gallon waste oil underground storage tank, two 6,000-gallon gasoline underground storage tanks, an 8,000-gallon gasoline underground storage tank, a 12,000-gallon gasoline underground storage tank, two fuel-dispensing pump islands, and associated product delivery lines were previously located on the Property. The 500-gallon underground storage tank was removed from the Property in 1990, and the remaining underground storage tank systems were removed from the northwestern and west-central portions of the Property in 2003. Soil samples collected from the floor and sidewalls of the tank excavation contained concentrations of gasoline-range petroleum hydrocarbons, benzene, total xylenes, and/or naphthalene in excess of the applicable Washington State Model Toxics Control Act Method A cleanup levels. The petroleum-contaminated soil was overexcavated to the maximum extent feasible; logistical constraints and access issues prohibited additional excavation to the north, south, and west.

Six additional subsurface investigations were conducted at the Property between 2004 and 2011 to evaluate the vertical and lateral extent of petroleum hydrocarbon contamination. During the subsurface investigations, soil samples collected from borings advanced around the perimeter of the former tank excavation were found to contain concentrations of gasoline-range petroleum hydrocarbons, benzene, toluene, ethylbenzene, total xylenes, and naphthalene in excess of the applicable Washington State Model Toxics Control Act Method A cleanup levels at depths between 4 and 27.5 feet below ground surface. Twenty-two of the soil borings were completed as monitoring, remediation, or observation wells. Groundwater samples collected during groundwater monitoring events since 2004 have contained concentrations of gasoline-range petroleum hydrocarbons, diesel-range petroleum hydrocarbons, oil-range petroleum hydrocarbons, benzene, toluene, total xylenes, naphthalene, and/or methyl tertiary-butyl ether in excess of the applicable Washington State Model Toxics Control Act Method A cleanup levels.

According to the Washington State Department of Ecology's *Guidelines for Property Cleanups Under the Voluntary Cleanup Program* dated July 2008, a site is defined by the nature and extent of contamination associated with one or more releases of hazardous substances prior to any cleanup of that contamination. Based on this definition of a site and that provided in Section 200 of Chapter 340 of Title 173 of the Washington Administrative Code, the TOC Holdings Co. Facility No. 01-169 site (the Site) includes the full lateral and vertical extent of petroleum hydrocarbon contamination that resulted from the former operation of a retail gasoline service station on the Property. Based on the findings of the subsurface investigations and groundwater monitoring events conducted at the Site between 2003 and 2012 and the historical research presented in this Remedial Investigation Report, the Site includes petroleum-contaminated soil beneath the central and northwestern portions of the Property in the vicinity of the underground storage tank excavation, extending beneath a portion of the North

Broadway right-of-way, and contamination of a discontinuous, perched water-bearing zone located in the vicinity of the underground storage tank excavation. Metals encountered beneath the Site are considered to be a result of the former American Smelting and Refining Company smelter and are not considered part of the Site.

This executive summary is presented solely for introductory purposes, and the information contained in this section should be used only in conjunction with the full text of this Remedial Investigation Report. A complete description of the project, Site conditions, investigative methods, and remedial investigation results is contained within this Remedial Investigation Report.

1.0 INTRODUCTION

SoundEarth Strategies, Inc. (SoundEarth) has prepared this Remedial Investigation Report on behalf of TOC Holdings Co. for TOC Holdings Co. Facility No. 01-169, located at 851 North Broadway in Everett, Washington (the Property). The Property location is shown on Figure 1. This Remedial Investigation Report was prepared for submittal to the Washington State Department of Ecology (Ecology), and was developed to meet the general requirements of a remedial investigation (RI) as defined by the Washington State Model Toxics Control Act (MTCA) Cleanup Regulation in Section 350 of Chapter 340 of Title 173 of the Washington Administrative Code (WAC 173-340-350).

According to Ecology's *Guidelines for Property Cleanups under the Voluntary Cleanup Program* dated July 2008, a site is defined by the nature and extent of contamination associated with one or more releases of hazardous substances prior to any cleanup of that contamination. Based on this definition of a site and that provided in Section 200 of Chapter 340 of Title 173 of the Washington Administrative Code, the TOC Holdings Co. Facility No. 01-169 site (the Site) includes the full lateral and vertical extent of petroleum hydrocarbon contamination that resulted from the former operation of a retail gasoline service station on the Property. Based on the results of the subsurface investigations and groundwater monitoring events conducted at the Site between 2003 and 2011 and the historical research presented in this Remedial Investigation Report, the Site includes petroleum-contaminated soil beneath the central and northwestern portions of the Property in the vicinity of the underground storage tank (UST) excavation, extending beneath a portion of the North Broadway right-of-way (ROW), and contamination of a discontinuous, perched water-bearing zone located in the vicinity of the UST excavation. Metals encountered beneath the Site are considered to be a result of the former American Smelting and Refining Company (ASARCO) smelter and are not considered to be part of the Site.

1.1 PURPOSE

The purpose of the RI was to collect data necessary to adequately characterize the Site and to allow for the development and evaluation of cleanup action alternatives. This Remedial Investigation Report summarizes the information obtained during the review of historical information regarding the Property and surrounding parcels, as well as the scope and findings of each subsurface investigation that has been conducted on the Site, and presents a conceptual site model (CSM). This Remedial Investigation Report has been prepared to supplement the information contained within the Remedial Investigation Report, dated November 9, 2009 (2009 RI), which was previously submitted to Ecology. The findings and conclusions of this Remedial Investigation Report supersede those of the 2009 RI.

1.2 REPORT ORGANIZATION

This Remedial Investigation Report is organized into the following sections:

- **Section 2.0, Background.** This section provides a description of the Property features and location; a summary of the current use of the Property and adjoining parcels; a summary of historical and future Property use; and a description of the Property's environmental, geologic, and hydrogeologic settings. This section also provides a summary of the subsurface investigations and interim remedial actions conducted at the Site, including a detailed description of the subsurface investigations performed in 2010 and 2011.

- **Section 3.0, Conceptual Site Model.** This section provides a summary of the CSM derived from the results of the environmental investigations performed at the Site. Included is a Site definition, a discussion of confirmed and suspected source areas, a listing of the chemicals and media of concern, the fate and transport characteristics of the release of hazardous substances, the potential exposure pathways, and a discussion of the terrestrial ecological evaluation process required by WAC 173-340-7940.
- **Section 4.0, References.** This section lists references cited in the document.
- **Section 5.0, Limitations.** This section discusses document limitations.

2.0 BACKGROUND

This section provides a description of the Property features and location; a summary of current and historical land use practices on the Property and adjoining parcels, a description of potential future Property uses, and a description of the environmental, geologic, and hydrogeologic settings at the Site. This section also provides a summary of the subsurface investigations and interim remedial actions conducted at the Site, including a detailed description of the subsurface investigations performed in 2010 and 2011.

2.1 PROPERTY LOCATION AND DESCRIPTION

The following subsections present the current land use practices on the Property and adjoining parcels.

2.1.1 Property

The Property consists of an irregularly shaped tax parcel (Snohomish County parcel number 29051700200700) that covers approximately 18,731 square feet (0.43 acres) of land. The Property is listed as 851 North Broadway, approximately 1.7 miles north of downtown Everett, Washington (Figure 1).

The Property is currently occupied by a retail shopping center and is owned by LSJM & K, LLC. Tenants include a Subway restaurant and a 7-Eleven convenience store. The exterior portions of the Property are predominately paved with asphalt. Other improvements include perimeter landscaping and chain link fencing. The Property is zoned by the City of Everett as Broadway Mixed Use (BMU).

The Property is serviced by potable water and sewer utilities provided by the City of Everett Public Works Department. A 48-inch-diameter concrete sewer runs east-west across the central portion of the Property. Other utilities that service the Property include natural gas and electricity. Overhead utility lines are present along the western and northern Property boundaries (Figure 2).

2.1.2 Adjoining Parcels

Development of the adjoining parcels is primarily commercial and is zoned by the City of Everett as BMU. Uses of adjoining parcels at the time this Remedial Investigation Report was prepared are summarized below:

- **North/East.** An irregularly shaped tax parcel (Snohomish County parcel number 29051700200600) covering approximately 30,056 square feet (0.69 acres) of land bounds the Property to the north and east. The parcel is undeveloped and is owned

by Big J Mini Mart, Inc. The parcel does not currently have a listed street address, although it was previously listed as 825 North Broadway. Online permit records available through the City of Everett indicate that the parcel was used as temporary storage for up to 130 cubic yards of soil imported from an unidentified source in 2008.

- **South.** An irregularly shaped tax parcel (Snohomish County parcel number 29051700200100) covering 267,894 square feet (6.15 acres) of land bounds the Property to the south. The address for the parcel is listed as 909 through 1001 Highway 99 North (North Broadway). The parcel is currently developed with two 1980-vintage, single-story buildings. The buildings are designated for medical and other health services use. Additional improvements to the south-adjoining parcel include asphalt-paved parking and perimeter landscaping. The parcel is currently owned by Everett Community College.
- **West.** The North Broadway (Highway 99 North) public ROW directly borders the west side of the Property. The adjacent ROW includes a 6-inch-diameter water line approximately 5 feet from and roughly parallel with the west Property boundary, trending north-south. A 48-inch-diameter concrete sanitary sewer line exits the west-central portion of the Property, enters the ROW, and continues toward the north.

  An irregularly shaped tax parcel (parcel number 00551300001900) covering 199,940 square feet (4.59 acres) of land is located across the North Broadway ROW to the west of the Property. The address for the parcel is listed as 840 North Broadway. The parcel is developed with two 1985-vintage buildings occupied by the Broadway Center of Everett Community College and a variety of state governmental agencies. Additional improvements to the parcel include asphalt-paved parking and perimeter landscaping. The parcel is owned by GPT Properties Trust.

  An irregularly shaped tax parcel (29051700201100) covering approximately 26,572 square feet (0.61 acres) of land is located across the North Broadway ROW to the southwest of the Property. The parcel, listed at 902 North Broadway, is owned by N A Properties Inc. and is occupied by a retail shopping center and a Texaco-branded retail gasoline station. The parcel is developed with a 1988-vintage building that occupies the southwestern portion of the parcel, as well as two fuel-dispensing pump islands and a canopy on the central portion of the parcel. According to Ecology records, three USTs with capacities between 10,000 and 20,000 gallons currently operate on the parcel. The parcel is listed on Ecology's leaking UST database due to a documented petroleum hydrocarbon release that affected soil beneath that parcel.

2.1.3 Everett Smelter Site

The Property is located approximately 2,000 feet south of a smelter that operated between the years 1894 and 1912. The smelter was initially built and operated by Puget Sound Reduction Company. In 1903, the smelter was purchased by ASARCO LLC, formerly known as ASARCO. Historical copper-smelting operations by ASARCO resulted in the generation and widespread distribution of slag in the area. Slag is a solidified remnant of a molten waste product that is produced during the smelting process, and it is commonly known to contain elevated

concentrations of arsenic, lead, and other metals. Moreover, large quantities of this waste by-product were historically used locally as fill material during the late 1800s and early 1900s (e.g., for use as subbase aggregate beneath roadways). The Everett Smelter Site has been delineated by Ecology and encompasses an extensive area that includes the Property. Slag material that appears to have been deposited in association with the construction of the North Broadway ROW has been encountered beneath the western portion of the Property. Ecology has designated ASARCO as a potentially liable party for area-wide cleanup activities related to the slag (Ecology 2004).

2.2 PROPERTY LAND USE HISTORY

Historical information on the land use of the Property was compiled (where available) from appropriate and publicly available resources. These resources included aerial photographs, Snohomish County Assessor records, Everett Fire Department records, City of Everett Public Works records, and reverse city directories. Copies of available supporting historical documents are included in the 2009 RI.

A 1947 aerial photograph depicted the Property as undeveloped and vegetated. A 1955 aerial photograph depicted the Property as cleared of vegetation. Historical records indicated that the Property was initially developed in 1959 with a retail gasoline station equipped with a 500-gallon waste oil UST, two 6,000-gallon USTs, and an 8,000-gallon UST, as well as two fuel-dispensing pump islands and associated product delivery lines. Historical records indicated that an addition was constructed to the 1959-vintage building in 1977, and a 12,000-gallon UST was installed on the Property in 1978. According to aerial photographs, a canopy was constructed in the central portion of the Property between 1974 and 1978. Everett Fire Department records indicated that two 6,000-gallon USTs, an 8,000-gallon UST, and a 2,000-gallon UST contained gasoline and that a permit was issued in 1990 to remove the 500-gallon waste-oil UST from the Property. In 2003, the four remaining USTs and associated structures were removed from the Property, as discussed in Section 2.6.1, 2003 Release Discovery. In 2004, Time Oil Co. (currently TOC Holdings Co.) sold the Property to its current owner, P & M Partnership. In 2008, the Property was redeveloped as a retail shopping center (Snohomish County Assessor 2009).

2.3 Future Property Land Use

SoundEarth is unaware of the potential future land use plans for the Property.

2.4 Environmental Setting

This section provides a summary of the environmental setting of the Property.

2.4.1 Meteorology

The marine climate of the Everett area is generally mild and experiences moderate seasonal fluctuations in temperature. Average temperatures (in degrees Fahrenheit) range from 60s in the summer to 40s in the winter. The warmest month of the year is August, which has an average maximum temperature of 73.9 degrees Fahrenheit. The coldest month of the year is January, which has an average minimum daily temperature of 33.6 degrees Fahrenheit.

The average annual precipitation reported for the Everett area is 37.54 inches and generally occurs in the form of rain. The wettest month of the year is November, during which the area

receives an average precipitation total of 5.11 inches. The driest month of the year is July, during which the area receives an average precipitation total of 1.32 inches (IDcide 2013).

2.4.2 Groundwater Use

According to the Ecology Water Well Logs (Ecology 2013), there are no water production wells within a 0.5-mile radius of the Property. The Property is located within the City of Everett's water supply system. Water for the City of Everett originates from the Spada Reservoir, which is located 30 miles east of Everett. The Spada Reservoir is located in the Sultan Basin Watershed. Once treated at the Drinking Filtration Plant, 4-foot-diameter transmission lines transport the water downstream to Everett (City of Everett 2013b).

2.5 GEOLOGIC AND HYDROGEOLOGIC SETTING

The following sections provide a summary of the geology and hydrogeology of the Property and surrounding area.

2.5.1 Topography

The topography of the Property and vicinity is generally mild, sloping gently downward from the northeast to the southwest. The Property has a topographic elevation of approximately 100 feet above mean sea level. The nearest surface water bodies consist of several ponds on the Legion Memorial Golf Course located northwest of the Property, the nearest of which is located approximately 1,200 feet west of the Property. The Property is located approximately 4,100 feet from the Snohomish River (at its nearest points), which flows out of the east prior to reaching its mouth located north of the Site where it discharges to Puget Sound.

2.5.2 Regional Hydrogeology

The Property is located in the Snohomish County Ground Water Management Area (Snohomish County Surface Water Management Division 2002). According to Ecology well logs, groundwater in the vicinity of the Property has been encountered at depths between 70 and 90 feet below ground surface (bgs). The regional aquifers occur in recessional outwash, advance outwash, and undifferentiated sediments and are confined by Vashon till and pre-Vashon transitional beds. Due to the depth of the aquifers and low permeability of the confining layers, the area aquifers are considered to be of low vulnerability to contamination from the ground surface.

2.5.3 Property Geology

The *Geologic Map of Washington State* (Schuster 2005) indicated that the Property is underlain by Vashon till, which generally consists of a dense heterogeneous mixture of silt, sand, gravel, cobbles, and boulders. The till is typically characterized by relatively low vertical hydraulic conductivity, which yields an increased potential for perched groundwater. Based on soil descriptions documented during the RI and prior work conducted at the Site, adequate data exist to characterize shallow soil at the Site into three geologic units, which are described below. The Site-specific geology is illustrated on the cross sections shown on Figures 3, 4, and 5; locations of the cross sections in plan view are provided on Figure 2. Copies of SoundEarth's boring logs are provided in Appendix A.

The surface of the Site generally consists of pavement and underlying aggregate subbase, which extends approximately 1 foot bgs. Soil directly underlying the surface cover generally consists of medium dense to dense, fine to medium sand with variable amounts of gravel, coarse sand, and

silt. In addition, variable amounts of slag up to 8 feet in thickness are present beneath the western portion of the Property and just beyond the Property boundary, near the North Broadway ROW. The shallow soil beneath the Site is interpreted to be non-native, anthropogenic fill. The fill unit ranges in thickness from approximately 7 to at least the maximum depth explored of 22 feet. Based on its composition and physical properties, soil within this unit has been generally classified as SM (silty sands, poorly graded sand-gravel-silt mixtures) in accordance with the Unified Soil Classification System (USCS).

An abrupt interface separates the relatively coarse fill materials from the underlying unit. This underlying unit predominately consists of very dense silt and clay, with variable amounts of fine sand. This unit represents the uppermost native formation and is interpreted to be Vashon till. The Vashon till is located approximately 15 to more than 30 feet bgs, exhibiting a downward dip toward the southwest consistent with surface topography. Based on its composition and physical properties, soil within this unit has been generally classified as ML (inorganic silts and very fine sands, silty or clayey fine sands) in accordance with the USCS. Investigation data and direct field observations indicate this unit yields little to no groundwater, and the Vashon till beneath the Property is characteristic of an aquiclude.

Underlying the Vashon till is a unit which generally consists of very dense, silty, fine to medium sand containing abundant coarse sand and gravel. This unit is interpreted to be Vashon advance outwash (i.e., Esperance Sand). In places, the transitional zone between the Vashon advance outwash and the overlying Vashon till is marked by thin layers or interbeds of sand, silt, and/or clay. Based on the findings of investigations conducted at the Site, the depth of the Vashon advance outwash ranges from approximately 11 feet bgs to at least 30 feet bgs (the maximum depth explored). A review of well logs in the Site vicinity and available online from Ecology indicates the Vashon advance outwash extends to a minimum depth of 70 feet bgs (Ecology 2013). Based on its composition and physical properties, soil within this unit has been generally classified as SM in accordance with the USCS.

2.5.4 Property Hydrology

Groundwater levels measured in the Site's 20 wells historically have ranged from 6.27 feet (observation well OW01) to 24.34 feet (monitoring well MW08) below the top of the monitoring well casings (Table 1). Thirteen of the Site wells have been dry during the course of monitoring, and these wells are generally located outside of the former UST system excavation area (wells MW02 through MW07, MW10, MW11, RW04, and RW05). Within the UST system excavation area, groundwater contours consistently indicate that the apparent groundwater flow direction is radial due to mounding of groundwater within the UST system excavation area (Figure 6). Outside of the UST system excavation area, groundwater levels have historically fluctuated drastically and are interpreted to be strongly controlled by the operation of the dual-phase extraction (DPE) remediation system.

The geologic contrast that generally exists below the Site places relatively coarse fill material over finer native deposits. The low permeability of the native material results in vertical retardation of the groundwater flow at the anthropogenic and native soil interface. Groundwater present above the fill-native interface is interpreted to be perched water.

2.6 Previous Investigations

The following provides a summary of the methods and findings of prior subsurface investigations of the Site, including the discovery of soil and groundwater contamination. The locations of soil borings, monitoring wells, soil samples, and other Site features are shown on Figure 2. The soil and groundwater analytical results are summarized in Figures 6 through 8 and in Tables 1 through 4. The remainder of this Remedial Investigation Report includes references to cleanup levels; unless otherwise specified, these refer to MTCA Method A Cleanup Levels for Unrestricted Land Use for soil and groundwater.

2.6.1 2003 Release Discovery

In December 2003, GeoEngineers, Inc. (GEI) of Seattle, Washington observed the decommissioning and removal of the UST system on the Property (GEI 2004). During field activities, two 6,000-gallon USTs, an 8,000-gallon UST, a 12,000-gallon UST, two dispenser islands, and associated product delivery piping were removed from the Property. Although the single-walled steel USTs were reported to have light to moderate rust with no discernible holes and the product delivery lines were described as being in good condition, field observations indicated evidence of a release to the environment. The approximate locations of the former USTs, dispenser islands, and associated product delivery lines are shown on Figure 2.

A total of 23 soil samples were collected from the UST system excavation and submitted to CCI Analytical Laboratories of Everett, Washington, for laboratory analysis of gasoline-range petroleum hydrocarbons (GRPH); benzene, toluene, ethylbenzene, and total xylenes (BTEX); methyl tertiary-butyl ether (MTBE); ethylene dibromide (EDB); ethylene dichloride (EDC); naphthalene; lead; volatile petroleum hydrocarbons; and extractable petroleum hydrocarbons. The approximate locations of soil samples are shown on Figure 2. The analytical results for the soil samples are presented in Tables 2 and 3, and those analytical results that exceed applicable cleanup levels are shown on Figure 7.

A summary of these results is as follows:

- Soil samples collected from the central, northern, western, and southern areas of the excavation contained concentrations of GRPH, benzene, toluene, ethylbenzene, and/or total xylenes that exceeded the applicable cleanup levels (Figure 7).
- Sidewall sample EX-20-15, located near the northeastern corner of the excavation, contained a concentration of naphthalene in excess of the cleanup level.
- Two excavation soil samples were analyzed for MTBE, EDB, EDC, and lead; neither sample contained detectable concentrations of these chemicals.

The final excavation dimensions were approximately 80 feet (north-south) by 50 feet (east-west), with a maximum depth of approximately 18 feet bgs. Approximately 973 cubic yards (or approximately 1,460 tons) of soil were excavated and taken to Rinker Materials in Everett, Washington, for treatment by thermal desorption. The lateral extent of the excavation was limited by logistical constraints, including off-Property access to the north, a sidewalk and a water main within the North Broadway ROW to the west, and a 48-inch-diameter sewer line to the south. The approximate lateral extent of the excavation is shown on Figures 2 and 7. Geologic cross sections illustrating the approximate vertical extent of the excavation are provided on Figures 3, 4, and 5.

2.6.2 2004 Subsurface Investigation

In October 2004, SoundEarth conducted a subsurface investigation in an effort to evaluate the lateral and vertical extent of petroleum contaminated soil (PCS) and impacted groundwater beneath the Site (SES 2005). The subsurface investigation included the advancement of 12 soil borings (B01 through B12) in the northwestern and west-central portions of the Site using a combination direct-push/hollow-stem auger drill rig. Soil boring B01 was advanced within the northeastern portion of the excavation area and completed as monitoring well MW01. Boring B02 was advanced along the west-central property boundary immediately southwest of the excavation area and completed as monitoring well MW02. Soil samples were submitted to North Creek Analytical, Inc. of Bothell, Washington, for laboratory analysis of GRPH and BTEX. A groundwater sample collected from monitoring well MW01 was submitted for analysis of GRPH, diesel-range petroleum hydrocarbons (DRPH), oil-range petroleum hydrocarbon (ORPH), and BTEX, naphthalene, EDB, EDC, and halogenated volatile organic compounds (VOCs), including trichloroethylene, tetrachloroethylene, and vinyl chloride. Locations of soil borings and monitoring wells are depicted on Figure 2. Copies of the boring logs are provided as Appendix A.

Soil Results. Soil samples collected from borings advanced within and adjacent to the northern and west-southwestern perimeter of the excavation (B01, B03, B04, B05, B06, and B07) and the North Broadway ROW (B11) contained concentrations of GRPH and/or benzene that exceeded the applicable cleanup levels at depths between 4 and 17 feet bgs. Soil samples collected from boring B09, which was advanced in the central portion of the excavation, and boring B12, which was advanced within the North Broadway ROW, did not contain concentrations of GRPH or BTEX in excess of the applicable cleanup levels. Soil samples were not collected from borings B02, B08, or B10. The analytical results for soil samples are presented in Table 2, and those results that exceeded the cleanup levels are shown on Figure 7.

2.6.3 2006 Remediation Well Installation

In March 2006, SoundEarth oversaw the installation of remediation wells for potential use as part of a DPE system on the Property. Nine soil borings (B13 through B21) were advanced at the Site using a hollow-stem auger drill rig. Seven of the soil borings were completed as recovery wells (B13 [RW01], B14 [RW07], B15 [RW02], B16 [RW03], B17 [RW06], B18 [RW05], and B19 [RW04]). Two of the soil borings were completed as observation wells (B20 [OW02] and B21 [OW01]). The locations of the soil borings and remediation wells are shown on Figure 2. Copies of the boring logs are provided as Appendix A.

Soil samples were collected for the sole purpose of documenting the geologic conditions encountered beneath the Site and soil or groundwater samples were therefore not submitted for laboratory analysis.

2.6.4 2006 Dual-Phase Extraction Remediation System Installation

In May 2006, SoundEarth installed a DPE remediation system on the Property. The DPE remediation system was designed to remove petroleum-contaminated groundwater and soil vapor from the UST system excavation area and vicinity. It was installed with use of the nine wells (remediation wells RW01 through RW07, and OW01 and OW02) that had been installed in March 2006.

Groundwater and soil vapor were recovered and subsequently treated with granular-activated carbon canisters, which remove volatile organic compounds. The treated effluent vapors were

discharged to ambient air in accordance with the Puget Sound Clean Air Agency Order of Approval for the Notice of Construction No. 9361. The treated effluent water was discharged to the sanitary sewer system in accordance with the City of Everett Public Works Discharge Authorization No. 3070-08. System operation and maintenance was performed on a monthly basis and included compliance sampling for vapor and water. The DPE remediation system remained operational at the Property until it was shut down in July 2009 due to a change in land use.

2.6.5 2006 Subsurface Investigation

In November 2006, Environmental Partners, Inc. (EPI) of Issaquah, Washington conducted a subsurface investigation on behalf of a potential buyer for the Property as part of the buyer's due diligence process (EPI 2006). In addition to further evaluating the impacts from the petroleum release previously identified at the Site, a primary objective of the investigation was to evaluate the nature and extent of potential impacts related to slag associated with the Everett Smelter Site.

EPI's subsurface investigation included the advancement of six direct-push soil borings on the Property (B-1 through B-6). Selected soil samples were submitted to CCI for laboratory analysis of total petroleum hydrocarbons; carcinogenic polycyclic aromatic hydrocarbons (cPAHs), polychlorinated biphenyls (PCBs); and metals (including antimony, arsenic, cadmium, copper, and lead). One reconnaissance groundwater sample was collected from boring B-6 located near the southwest corner of the UST system excavation and downgradient of the former USTs. The reconnaissance groundwater sample was submitted to CCI for laboratory analysis of GRPH and BTEX. The locations of the soil borings are shown on Figure 2.

Groundwater Results. Analytical results for reconnaissance groundwater are typically used as a qualitative indicator of potential impacts and are generally biased high as a result of elevated turbidity of the groundwater collected from temporary wells. However, only GPRH and ethylbenzene were detected in the reconnaissance groundwater sample collected from soil boring B-6, and the concentrations were below the applicable cleanup levels. The analytical results for the reconnaissance groundwater sample are presented in Table 5.

Soil Results. Antimony, arsenic, and lead were detected in soil samples collected from soil borings B-1 and B-6 at concentrations exceeding their applicable cleanup levels. These metals, as well as copper, were detected at elevated concentrations in the slag, suggesting that the metals contamination is a result of the presence of slag and not the operation of the former retail gasoline service station. Additionally, elevated antimony, arsenic, copper, and lead concentrations were found in soil underlying the slag; however, none were detected in soil samples collected from the excavation backfill. Concentrations of cadmium, copper, petroleum hydrocarbons, cPAHs, and PCBs were below the applicable laboratory reporting limits and/or cleanup levels. The analytical results for the soil samples are presented in Tables 2, 3, and 4, and those results that exceed applicable cleanup levels are shown on Figure 7.

2.6.6 2009 Interim Remedial Action

An injection event was conducted on the Property in March 2009 in an effort to address the elevated concentrations of GRPH and BTEX detected in groundwater beneath the Site. Prior to injecting, SoundEarth obtained underground injection control (UIC) registration from Ecology. During the injection event, approximately 220 gallons of a solution containing sodium persulfate

and hydrogen peroxide was injected into monitoring wells OW02 and RW06 with the use of a pump or via gravity feed.

2.6.7 2009 Subsurface Investigation

In June 2009, SoundEarth conducted a subsurface investigation to further assess the lateral and vertical extent of soil contamination on the Property. The subsurface investigation consisted of advancing 11 direct-push soil borings (P01 through P11) to depths ranging from 17.5 to 22 feet bgs. Borings P01 through P03 were advanced west of the former UST excavation; borings P04 through P06 were advanced in the North Broadway ROW; borings P07 through P09 were advanced east of the former UST excavation; and borings P10 and P11 were advanced within the former UST excavation (Figure 2). Groundwater was encountered in borings P02 and P08 at depths of 17 and 15 feet bgs, respectively. Selected soil samples were submitted to Friedman & Bruya, Inc. (F&BI) of Seattle, Washington for laboratory analysis of GRPH, DRPH, ORPH, BTEX, and naphthalene.

Soil Results. Samples collected from soil borings P06, P07, P08, P09, P10, and P11 contained concentrations of GRPH and/or benzene that exceeded the applicable cleanup levels. Concentrations of toluene, ethylbenzene, total xylenes, and/or naphthalene exceeded cleanup levels in samples collected from soil borings P07, P09, and P11. Concentrations of DRPH and ORPH collected from the soil borings were below the applicable laboratory reporting limits and/or cleanup levels. The analytical results for the soil samples are presented in Table 2, and those results that exceeded the cleanup levels are shown on Figure 7.

2.6.8 2010 and 2011 Subsurface Investigations

The results of the subsurface investigations conducted between 2004 and 2009 indicated that the lateral extent of soil and groundwater contamination beneath the Site was not fully characterized to the north, west, or east of the UST system excavation. In an effort to address these data gaps, SoundEarth conducted three subsurface investigations between November 2010 and June 2011. The investigations were also intended to increase the number of wells that could be utilized by a remediation system at the Site. The subsurface investigations involved advancing 15 soil borings (B22 through B36) with a hollow-stem auger drill rig; analyzing selected soil samples collected from the soil borings; and completing the soil borings as monitoring wells MW03 through MW13 and recovery wells RW08 through RW11.

Field activities were conducted under the supervision of a SoundEarth geologist. Prior to commencing subsurface investigation field activities, a private utility location survey was conducted by Underground Detection Services of Seattle, Washington. Drilling services were provided by Cascade Drilling, L.P., of Woodinville, Washington.

The soil borings were advanced at the following locations:

- Soil borings B22, B23, and B29 (monitoring wells MW03, MW04, and MW10, respectively) were advanced within the North Broadway ROW to the west of the Property to define the northern and western extents of impacts associated with the Site.

- Soil borings B24, B25, B26, and B28 (monitoring wells MW05, MW06, MW07, and MW09, respectively) were advanced on the adjoining parcel to the north to define the northern extent of impacts associated with the Site.
- Soil borings B27 and B31 through B34 (monitoring wells MW08 and recovery wells RW08 through RW11, respectively) were advanced within and along the margins of the UST system excavation to be used as recovery wells.
- Soil boring B30 (monitoring well MW11) was advanced to the south of the building along the southern Property boundary in an effort to define the southern extent of impacts from the Site.
- Soil borings B35 and B36 (monitoring wells MW13 and MW12, respectively) were advanced on the Property along the southern edge of the excavation and in the north central portion of the excavation to be used as additional monitoring wells and to further define the vertical extent of impacts associated with the Site.

The soil borings were sampled at approximate 1.5-foot intervals to a total depth of 21.5 feet bgs using a Dames and Moore sampler advanced through the hollow-stem auger. Blow counts and sample recovery percentages were logged at each sample interval.

The soil samples were described in accordance with the USCS and were screened in the field for potential evidence of contamination using visual observations, notations of odor, and by conducting headspace analysis using a photoionization detector (PID) to detect the presence of volatile organic vapors. Headspace analysis was conducted by placing soil from each sample interval into a resealable plastic bag and allowing the sample to warm for a minimum of 30 seconds. The probe of the PID was then inserted into the bag, and the highest reading obtained over an approximately 30-second interval was recorded. The USCS symbol, visual and olfactory notations for the samples, and PID readings were recorded on boring log forms, which are provided in Appendix A.

Soil samples collected from the soil borings were transferred directly into laboratory-prepared sample containers, and three soil samples from each boring were selected for laboratory analysis. Selected soil samples were collected in accordance with U.S. Environmental Protection Agency (EPA) Method 5035A for sampling and analysis of low-level volatile organic compounds. Soil samples were also collected using 4-ounce jars for analysis of DRPH, ORPH, and dry weight. The sample containers were labeled with a unique sample number and placed in an iced cooler. The soil samples were submitted to F&BI, under standard chain-of-custody protocols for laboratory analysis. Selected soil samples were analyzed for GRPH by NWTPH Method NWTPH-Gx and BTEX by EPA Method 8021B. Additional soil samples were analyzed for DRPH and ORPH by NWTPH-Dx, and naphthalene and MTBE by EPA Method 8260C. Copies of the laboratory analytical reports are provided in Appendix B.

Soil Results. The soil sample collected from boring B22 (MW03) at a depth of 18 feet contained a concentration of GRPH that exceeded the cleanup level, which suggested that PCS from the Site may have extended west of the Property and under the North Broadway ROW. Boring B29 (MW10) was advanced in the ROW to the west of boring B22; soil collected from boring B29 did not contain concentrations of petroleum hydrocarbons in excess of the applicable cleanup levels, thereby defining the western extent of PCS associated with the Site.

Concentrations of GRPH and/or one or more of the BTEX constituents that exceeded the applicable cleanup levels were present in one or more of the soil samples collected from borings B27 and B31 through B36 at depths of 5 and 27.5 feet bgs. Each of these borings was advanced within or immediately adjacent to the former UST excavation. None of the soil samples collected from these borings at depths greater than 27.5 feet bgs contained concentrations of GRPH or BTEX that exceeded the applicable cleanup level, thereby limiting the vertical extent of impacts associated with the Site to a depth of approximately 27.5 feet.

Concentrations of GRPH and BTEX were not detected at concentrations exceeding the applicable cleanup levels in soil borings B23 through B26, thereby delineating the northern extent of impacts associated with the Site. PCS was also not encountered in boring B28, which was advanced to the east of the Property boundary, or in boring B30, which was advanced along the southern Property boundary, thereby delineating the eastern and southern extents of impacts associated with the Site.

Concentrations of DRPH, ORPH, and MTBE did not exceed the laboratory detection limit in any sample submitted for laboratory analysis. The analytical results for the soil samples are presented in Table 2, and those results that exceeded the cleanup levels are shown on Figure 7. These results confirm that the full vertical and lateral extents of impacts to soil beneath the Site have been defined.

2.6.9 2010 Pilot Study

In December 2010, SoundEarth conducted a pilot study to further evaluate DPE as potential remedial technology for the Site. The pilot test was conducted on groundwater monitoring well MW08 and remediation wells RW03 and RW06. A vacuum truck was used to pull a vacuum on each of the test wells. An instrument train was used to monitor vacuum, bleed air flow rates, and bleed petroleum hydrocarbon vapor concentrations from the suction well. A stepped vacuum test was performed at each of the test wells. During the test at each of the test wells, the vacuum was measured in six to seven observation wells. Upon the conclusion of each test, an effluent vapor sample was collected in a PAC250 summa canister (250 milliliter volume) for analysis of GRPH and BTEX by Modified EPA Method TO-3. The samples were sent to Air Toxics, Ltd. for analysis. The results of the pilot study indicated that DPE would be a feasible remedial technology for the Site.

2.6.10 2012 Dual-Phase Extraction Remediation System Installation and Operation

In June 2012, SoundEarth installed an expanded DPE remediation system on the Property which was designed to remove petroleum-contaminated groundwater and soil vapor from the UST system excavation area and vicinity. The system utilizes nine wells (MW08, OW02, RW02, RW03, RW04, RW08, RW09, RW10, and RW11). The DPE remediation system was started in June 2012 and will remain operational at the Property until compliant results for groundwater have been achieved.

Recovered groundwater is treated with a tray stripper, which removes volatile organic compounds. The effluent soil vapor from the tray stripper and vacuum extraction are discharged to ambient air. The treated effluent water is discharged to the sanitary sewer system in accordance with the City of Everett Public Works Discharge Authorization No. 3070-08. System

operation and maintenance is performed on a monthly basis and includes compliance sampling for vapor and water.

2.6.11 Groundwater Monitoring

Quarterly groundwater monitoring has been conducted at the Site since May 2006. The groundwater monitoring events are conducted to evaluate the environmental quality, flow direction, and gradient of groundwater beneath the Site; to assess the effectiveness of previous and ongoing remediation efforts; and to eventually demonstrate compliance with applicable cleanup levels. Groundwater samples are submitted to F&BI for laboratory analysis of GRPH, DRPH, ORPH, and BTEX. Selected groundwater samples have also been analyzed for naphthalene, MTBE, EDB, EDC, and metals, including arsenic and lead.

Concentrations of GRPH and/or one or more BTEX constituents exceeding the applicable cleanup levels have been detected in groundwater samples collected from wells MW01, MW08, MW12, MW13, RW02, RW04, RW05, RW09, RW11, OW01, and OW02. Because the perched water-bearing zone beneath the Property is discontinuous, remediation wells RW04 and RW05 have only contained a sufficient volume of water to sample them once since their installation. A concentration of GRPH exceeding the cleanup level was detected once in monitoring well MW01 in 2004 and a concentration of benzene exceeding the cleanup level was detected once in well OW01 in 2008; subsequent sampling events have indicated that concentrations of petroleum hydrocarbons in groundwater remain below applicable cleanup levels in each of these wells.

Concentrations of DRPH and/or ORPH have been detected in wells MW08, RW01, RW02, RW05, RW07, RW09, RW11, and OW02; however, the results have been consistently flagged by the laboratory because the chromatograms resemble weathered gasoline, not diesel. Naphthalene has been detected in groundwater samples collected from monitoring well MW08 and remediation well RW02 at concentrations exceeding the applicable cleanup level. Concentrations of MTBE was detected in groundwater samples collected from OW02 during the first two groundwater monitoring events conducted in 2006, but remained below the cleanup level in each of the five subsequent monitoring events that included this analysis.

Lead and arsenic have been detected in groundwater samples collected from wells MW08 and RW07, respectively, at concentrations exceeding the applicable cleanup levels. Lead and arsenic are considered to be attributed to ASARCO smelter slag material beneath the Site and not related to the former operation of a gasoline station; the analysis of metals was discontinued in 2011.

GRPH, DRPH, ORPH, BTEX constituents, MTBE, and naphthalene have consistently remained below the applicable cleanup levels and/or laboratory reporting limits in groundwater samples collected from wells MW09, RW01, RW03, RW06, RW07, and RW10. Wells MW02 through MW07, MW10, MW11, and RW08 have not contained a sufficient volume of water to sample since they were installed.

3.0 CONCEPTUAL SITE MODEL

This section presents a conceptual understanding of the Site derived primarily from the results of the historical research and subsurface investigations performed at the Site. Included is a discussion of the confirmed and suspected source areas, the chemicals and media of concern, the contaminant distribution, the fate and transport characteristics of the release of hazardous substances, the potential

exposure pathways, and the definition of the Site. The CSM serves as the basis for developing technically feasible cleanup alternatives and selecting a final cleanup action. The CSM is considered to be dynamic and may be refined throughout the cleanup action process as additional information becomes available.

3.1 CONFIRMED AND SUSPECTED SOURCE AREAS

A source area is the location of a release of a hazardous substance (i.e. GRPH and benzene) that has affected one or more media at the Site. The observed distribution of petroleum hydrocarbons in soil and groundwater at the Site is inferred to be evidence of one or more historical releases from the former UST system on the Property. The location of the former UST system is shown on Figure 2. The UST system has been removed from the Property; therefore, it does not represent an ongoing primary source of contamination to soil or groundwater beneath the Site.

Although the location of the former waste oil UST is unknown, it has reportedly been removed from the Property and does not represent an ongoing primary source of contaminants to soil or groundwater beneath the Site.

Areas of PCS could not be excavated during the 2003 UST removal activities; the portions of the Site with residual PCS are shown on Figure 7. The PCS remaining at the Site may serve as an ongoing contaminant source for the remaining groundwater impacts within and proximal to the former UST excavation area.

The Site is located 2,000 feet from the former ASARCO smelter and is included within Ecology's Everett Smelter Site. Slag that is associated with the Everett Smelter Site has been encountered beneath the Site during previous subsurface investigations and has been found to contain concentrations of lead, antimony, and arsenic exceeding the applicable cleanup levels. However, since the Site is defined by the extent of impacts associated with releases from the gasoline station that formerly operated at the Property, and since the lead and arsenic are not associated with these releases, the slag is not considered a source area for the Site.

3.2 CHEMICALS AND MEDIA OF CONCERN

As discussed in the section above, the former gasoline UST system and waste oil UST were identified as potential sources of release(s) beneath the Property, requiring the testing of several potential chemicals of concern (COCs) as identified on Table 830-1, Required Testing for Petroleum Releases, of WAC 173-340-900. SoundEarth and others have analyzed soil and groundwater for petroleum hydrocarbons GRPH, DRPH, ORPH; volatile petroleum compounds, including BTEX; and fuel additives and blending compounds, including EDB, EDC, MTBE, and lead to satisfy the requirements for testing for a gasoline- or diesel-range release in association with the gasoline UST system. In addition, soil and/or groundwater were analyzed for carcinogenic PAHs, naphthalenes, PCBs, and halogenated VOCs to satisfy the requirements for testing for a heavy oil or waste oil release.

Based on the findings of the RI, PCBs, carcinogenic PAHs, EDB, EDC, and halogenated VOCs are not considered COCs for the Site because concentrations of these chemicals in soil and/or groundwater samples have remained below the applicable cleanup levels and/or laboratory reporting limits. Lead and arsenic have also been eliminated as COCs for the Site, as they are associated with the slag material associated with the ASARCO smelter site and not a release from the former gasoline station on the

Property. Further investigation of these chemicals appears to be unwarranted. The following primary COCs have been identified using the results of the RI:

- GRPH and BTEX constituents in soil, soil vapor, and groundwater
- DRPH and ORPH in groundwater

Secondary COCs identified at the Site include:

- Naphthalene in soil and groundwater
- MTBE in groundwater

The distribution of GRPH, DRPH, ORPH, BTEX, MTBE, and naphthalene in the affected media has been investigated sufficiently for definition of the Site under MTCA, identification of the media of concern for future cleanup action, and evaluation and recommendation of a cleanup alternative.

3.3 DISTRIBUTION OF CONTAMINANTS IN SOIL

The analytical data collected during the investigations conducted at the Site indicate that contaminant concentrations exceeding the applicable cleanup level are generally located beneath the central and northwestern portions of the Property in the vicinity of the UST excavation area and extend beneath a portion of the North Broadway ROW. The western extent of PCS is bound by boring B29 (MW10); the eastern and southern extents of PCS are bound by borings B28 (MW09) and B30 (MW11), as well as by borings P01, P02, and P03; and the northern extent of PCS is bound by B23 through B26 (MW04 through MW07, respectively). The maximum vertical extent of PCS was detected in boring B31 (RW08) at 27.5 feet.

3.4 DISTRIBUTION OF CONTAMINANTS IN GROUNDWATER

Based on analytical data collected to-date, petroleum-related contaminants have been detected in groundwater samples collected from several monitoring wells located within and around the perimeter of the backfilled UST and dispenser island excavation areas. Shallow groundwater encountered beneath the Site consists of discontinuous saturated intervals within, or at the base of, the fill materials overlying finer-grained silt or silty sand deposits. Groundwater monitoring data indicates that some of these saturated water-bearing zones have transient characteristics as a result of seasonal precipitation and/or operation of the groundwater extraction system.

The extent of the petroleum-contaminated groundwater appears to be limited to the immediate vicinity of the former USTs and dispenser islands. Monitoring data collected during the investigations indicate that residual petroleum-related contamination is present in some of the unexcavated soil around the former USTs and dispenser islands, resulting in localized areas of petroleum-contaminated groundwater when saturated conditions occur. Monitoring wells located downgradient from the excavation source area and screened across intervals similar to those located within the excavation area have either not exhibited saturated conditions or, when groundwater is present, have not contained COC concentrations above the laboratory reporting limits or the applicable cleanup levels.

3.5 Contaminant Fate and Transport

This section includes a discussion of the transport mechanisms and environmental fate of the petroleum hydrocarbons in the subsurface.

3.5.1 Environmental Fate in the Subsurface

The most significant fate process for petroleum hydrocarbons is biodegradation (i.e., natural attenuation). Biological degradation of contaminants in light non-aqueous phase liquids (LNAPL), dissolved, residual, and vapor phases, is possible under a variety of environmental conditions, although it occurs predominately in the aqueous, residual, and vapor phases. Degradation products of gasoline constituents are generally less toxic than their parent species. Petroleum hydrocarbons that are the most mobile (having the least viscosity and most solubility in water) are also the most easily biodegraded (e.g., aromatics). Because gasoline constituents contain thousands of carbon compounds, there is a vast array of biochemical transformations that occur in the soil and groundwater media. For example, hydroxylation can alter hydrocarbon compounds to ketone or alcohol products that are less toxic or more biologically available; aromatic reduction can convert aromatic groups to naphthenes; ring cleavage can destroy aromatic functional group species; and reduction can alter olefin functionality. The alteration and destruction of gasoline constituents occur by microbial enzyme catalytic reactions on the contaminant substrate or by direct digestion of contaminants as an electron donor or acceptor. Any number of reactions can occur within the subsurface by microorganisms that change the chemical distribution and concentrations of the contaminants.

The time frame over which these reactions occur vary depending on any number of limiting factors, primarily the availability of oxygen. For example, BTEX constituents are rapidly degraded under aerobic conditions but tend to persist for several years and/or decades under the anoxic conditions typical of most subsurface environments.

3.5.2 Transport Mechanism Affecting Distribution of Petroleum Hydrocarbons in the Subsurface

The environmental transport mechanisms of petroleum hydrocarbons are related to the separate phases in the subsurface. The four transport mechanisms for contaminant migration at the Site include:

- Vadose zone soil contamination leaching to saturated zone soil and/or groundwater
- Vadose zone soil contamination volatilizing to soil vapor/indoor air
- Saturated zone soil contamination leaching to groundwater
- Groundwater contamination volatilizing to soil vapor/indoor air

3.6 PRELIMINARY EXPOSURE PATHWAYS

This section discusses the confirmed and potential human health and ecological exposure pathways identified for the Site with the goal of identifying those pathways requiring remediation to reduce or eliminate unacceptable risks to human health or the environment and applying the findings to the development of potentially feasible remedial technologies.

3.6.1 Soil-to-Groundwater Pathway

Acknowledging the presence of residual soil contamination within the saturated zone and the presence of groundwater contamination in the vicinity of the former UST excavation, the soil-to-groundwater pathway is complete.

3.6.2 Direct-Contact Pathway

Direct contact with soil and groundwater exhibiting concentrations of petroleum hydrocarbons in excess of the cleanup levels is limited to human receptors that come into close contact with the media via direct exposure, including dermal contact or ingestion of excavated soil or groundwater. The standard point of compliance for soil contamination beneath a site is approximately 15 feet bgs, which represents a reasonable estimate of the depth that could be accessed during normal site redevelopment activities (WAC 173-340-740[6][d]). PCS and petroleum-contaminated groundwater are present within 15 feet of the ground surface, which means that the direct-contact pathway is complete. However, access to the subsurface is limited by the existing pavement, thereby minimizing risks associated with the direct-contact pathway.

3.6.3 Vapor Inhalation Pathway

The air between soil grains in the unsaturated zone or partially saturated zone is frequently referred to as soil gas. Soil gas can become contaminated from volatilization of a petroleum-compound source, and to a lesser degree, dissolved in groundwater. Ecology guidance for evaluating soil vapor intrusion risks (2009) into structures presents screening levels for groundwater and soil vapor that could result in vapor intrusion exposure risks. According to Ecology (2009), the presence of benzene concentrations in groundwater exceeding 2.4 micrograms per liter or in soil vapor beneath a building structure exceeding 3.2 micrograms per cubic meter has the potential to result in adverse risk via vapor intrusion to indoor air through a concrete floor slab. Since concentrations of benzene in both soil and groundwater beneath the Site exceed the screening/calculated risked-based cleanup levels, the vapor inhalation exposure pathway is considered to be complete at the Site.

According to *Vapor Intrusion Pathway: A Practical Guideline* (ITRC 2007), "For the vapor intrusion pathway to be complete, there must be three components—a source of volatile compounds in the subsurface environment (groundwater and/or soil), inhabited buildings or the potential for future inhabited buildings, and a migration route to connect them…" The building present on the Site is constructed on concrete slab, which acts as a vapor barrier and in combination with the depth to groundwater and soil contamination mitigate the potential risks for vapor intrusion. In areas with no structures, any vapors rising to the surface would be dispersed into the atmosphere, where dilution and degradation would occur.

3.6.4 Groundwater-to-Surface Water Pathway

The results of the RI confirm that impacts associated with the Site have not migrated toward surface waters, nor does groundwater from the Site discharge to the surface. As such, the groundwater-to-surface water pathway is incomplete.

3.6.5 Groundwater-to-Drinking Water Pathway

Shallow groundwater in the vicinity of the Site is not developed as a water resource and is not likely to be developed in the future due to the current zoning regulations. The presence of the Vashon till unit appears to hydrologically separate the shallow perched groundwater zone from

the underlying aquifer within the Vashon advance outwash by a distance of more than 40 vertical feet. In addition, a review of registered water wells on the Ecology Web site revealed that the Site is not located within 0.5 miles of any water supply wells (Ecology 2013). Therefore, contact with drinking water is not considered to be a pathway of exposure for the Site.

3.7 TERRESTRIAL ECOLOGICAL EVALUATION

The Terrestrial Ecological Evaluation (TEE) is required by WAC 173-340-7492 at locations where a release of a hazardous substance to soil has occurred. The regulation requires that one of the following actions be taken:

- Documenting a TEE exclusion using the criteria presented in WAC 173-340-7491.
- Conducting a simplified TEE in accordance with WAC 173-340-7492.
- Conducting a site-specific TEE in accordance with WAC 173-340-7493.

Results from the TEE indicate that the Site qualifies for an exclusion based on WAC 173-340-7491. The results of ranking for the simplified TEE under Table 749-1 of WAC yields a score of 9, which qualifies the Site for TEE exclusion under the criteria set forth in WAC 173-340-7492 (Appendix C). No further consideration of ecological impacts is required under MTCA.

3.8 SUMMARY OF CONCEPTUAL SITE MODEL

Data compiled during the RI indicates that the former operation of a retail gasoline station resulted in releases of petroleum hydrocarbons that impacted soil, groundwater, and soil vapor beneath the Site. The impacts are limited to the Property and a portion of the west-adjacent ROW, at depths up to 27.5 feet bgs. Previous and ongoing remedial actions taken at the Site have significantly reduced the concentrations of COCs in the media of concern, but the COCs remain at concentrations exceeding the MTCA Method A cleanup levels for soil and groundwater, as well as the screening levels for indoor air. Groundwater contamination has been shown to be limited to the Property and immediate vicinity and is not at risk of impacting surface water or drinking water sources, thereby limiting the exposure pathways to direct contact with contaminated soil and/or groundwater and vapor inhalation. The risks associated with these exposure pathways are significantly mitigated by the presence of the asphalt-paved parking lot and the concrete slab of the building on the Property. These risks are further mitigated by the ongoing operation of a dual-phase remediation system, which is effectively reducing contaminant concentrations, preventing the further migration of impacts in groundwater, and removing vapors from the subsurface, eliminating the risk of vapor inhalation in indoor air.

4.0 REFERENCES

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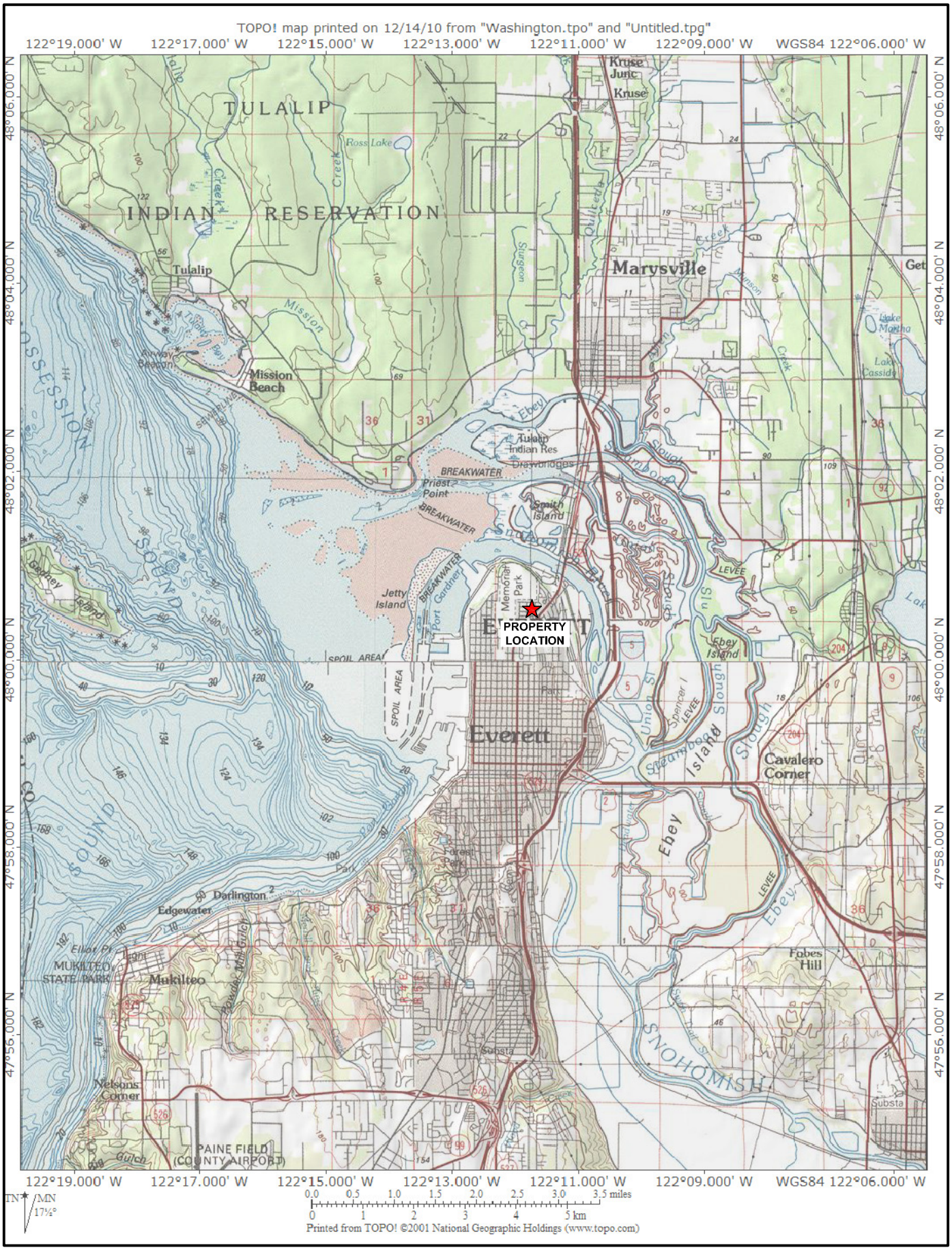
5.0 LIMITATIONS

The findings and conclusions documented in this report were prepared for the specific application to this project and were developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area. A potential always remains for the presence of unknown, unidentified, or unforeseen subsurface contamination on portions of the Site not sampled, such as under buildings. No warranty, expressed or implied, is made. This report is for the exclusive use of TOC Holdings Co. and its representatives.

FIGURES



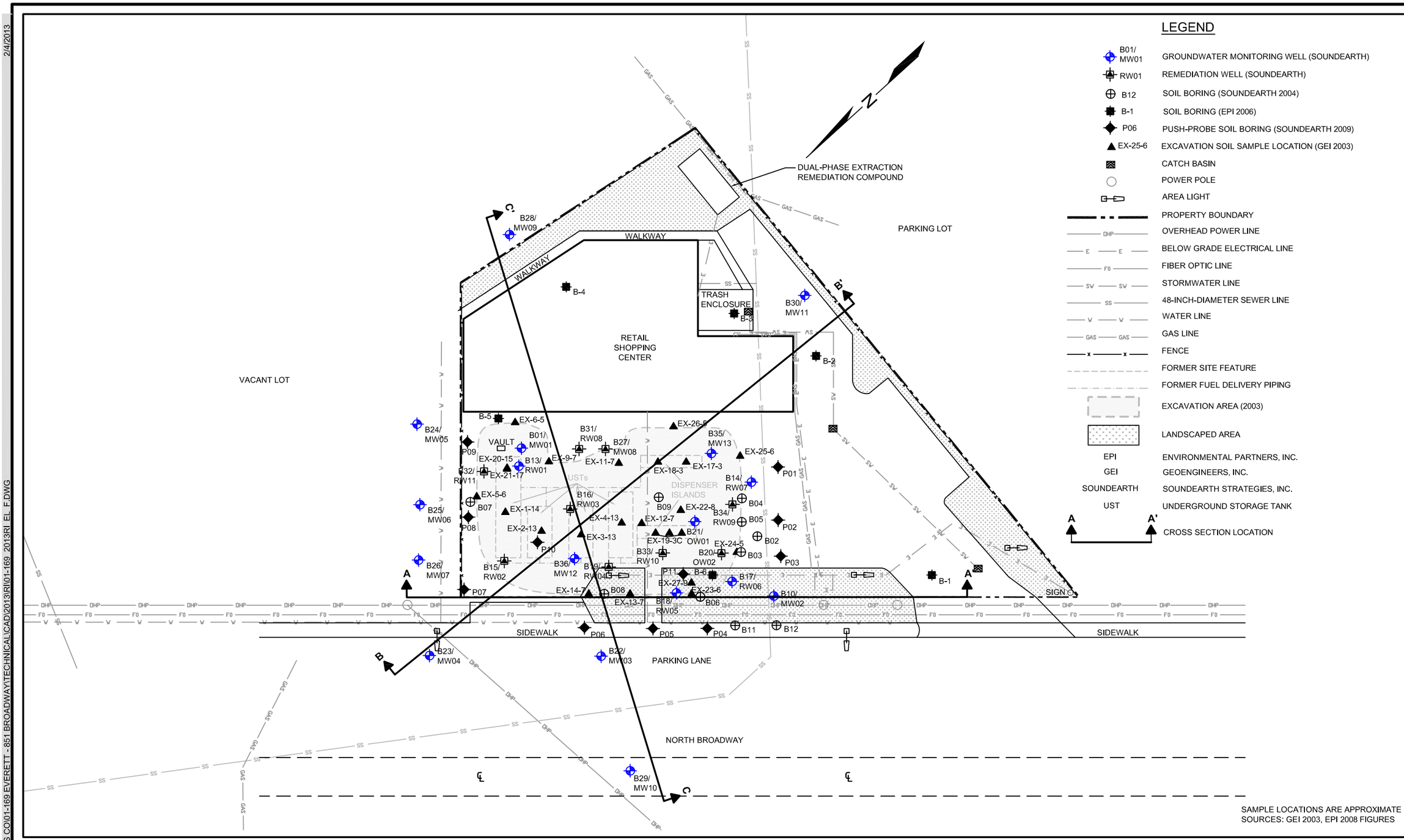
SoundEarth Strategies
WWW.SOUNDEARTHINC.COM

DATE:	02/07/12
DRAWN BY:	JQC
CHECKED BY:	RKB
CAD FILE:	01-169_Fig 1_TO

PROJECT NAME:	TOC HOLDINGS CO. FACILITY NO. 01-169
PROJECT NUMBER:	0440-002
STREET ADDRESS:	851 NORTH BROADWAY
CITY, STATE:	EVERETT, WASHINGTON

FIGURE 1
PROPERTY LOCATION MAP

2/7/2012
P:\0440 TOC HOLDINGS CO\01-169 EVERETT - 851 BROADWAY\TECHNICAL\CAD\FIGURE 1\01-169_FIG1_TO.DWG
WWW.SOUNDEARTHINC.COM



SoundEarth Strategies
WWW.SOUNDEARTHINC.COM

DATE: 08/20/12
DRAWN BY: NAC
CHECKED BY: RKB
CAD FILE: 01-169_2012RI_EL

PROJECT NAME: TOC HOLDINGS CO. FACILITY 01-169
PROJECT NUMBER: 0440-002
STREET ADDRESS: 851 NORTH BROADWAY
CITY, STATE: EVERETT, WASHINGTON

REGION:

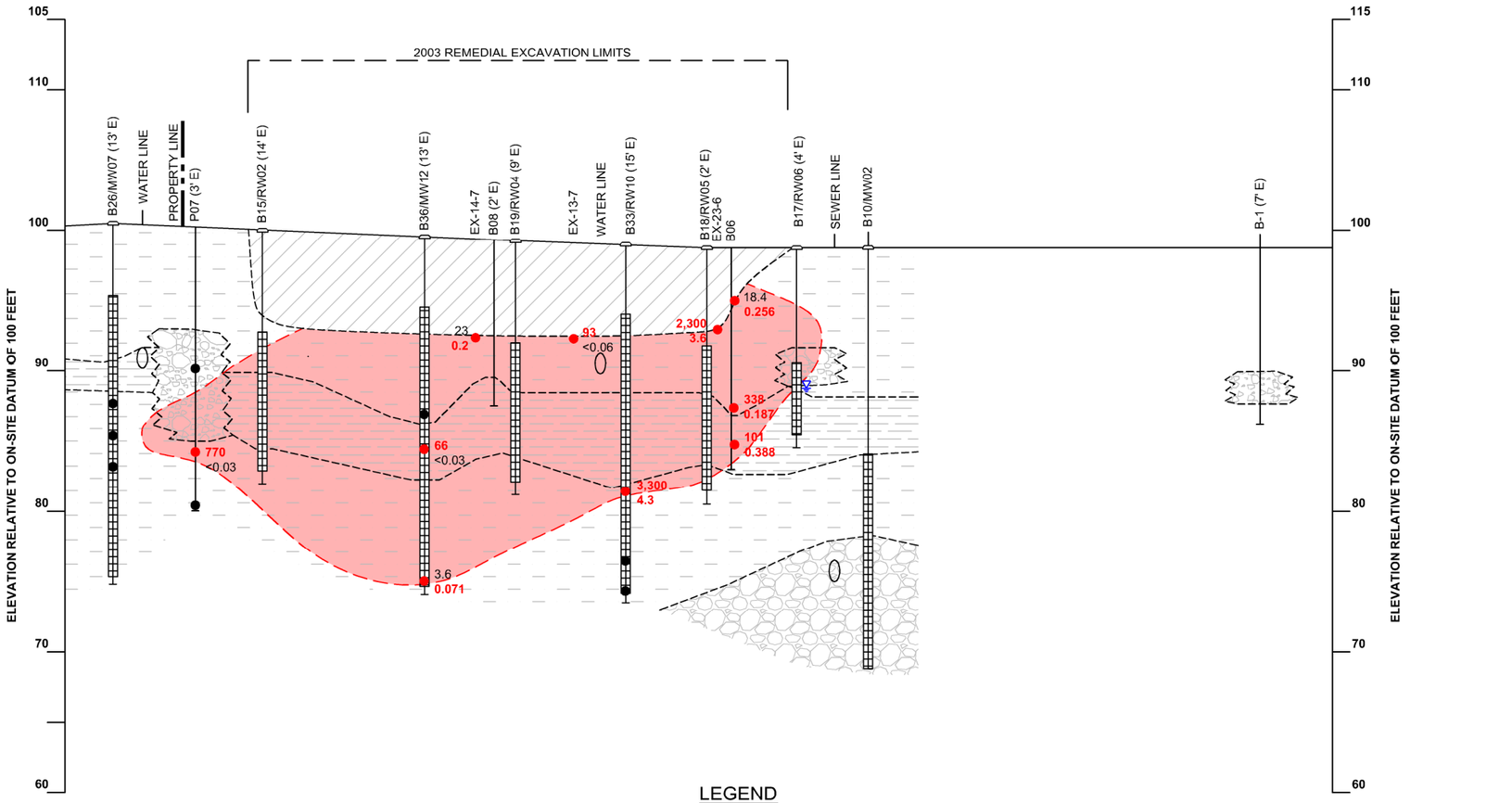
0 7.5 15 30 60
APPROXIMATE SCALE IN FEET

FIGURE 2
EXPLORATION LOCATION PLAN
WITH GEOLOGIC CROSS SECTION LOCATIONS

2/4/2013
P:\0440 TOC HOLDINGS CO\01-169 EVERETT - 851 BROADWAY\TECHNICAL\CAD\2013\RI\01-169_2013RI_EL_F.DWG
SOUNDEARTHINC.COM

A (NORTHEAST)

A' (SOUTHWEST)



LEGEND

- EXCAVATION BACKFILL
- SILTY SAND
- SLAG
- SILT
- GRAVEL
- APPROXIMATE EXTENT OF PETROLEUM HYDROCARBONS IN SOIL ABOVE MTCA METHOD A CLEANUP LEVELS
- GEOLOGIC CONTACT

23 GASOLINE-RANGE PETROLEUM HYDROCARBONS
0.2 BENZENE

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN SOIL (MILLIGRAMS PER KILOGRAM):

- CONCENTRATION BELOW MTCA METHOD A CLEANUP LEVEL
- CONCENTRATION ABOVE MTCA METHOD A CLEANUP LEVEL

< RESULT BELOW LABORATORY REPORTING LIMIT

MTCA WASHINGTON STATE MODEL TOXICS CONTROL ACT

(6' W) OFFSET 6' WEST FROM SECTION LINE

MONITORING WELL
SCREEN INTERVAL
GROUNDWATER LEVEL (AUGUST 14, 2012)

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.

VERTICAL SCALE IN FEET: 0, 5, 10
HORIZONTAL SCALE IN FEET: 0, 10, 20

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CAD FILE: 01-169_2012RI_XAA

PROJECT NAME: TOC HOLDINGS CO. FACILITY 01-169
PROJECT NUMBER: 0440-002
STREET ADDRESS: 851 NORTH BROADWAY
CITY, STATE: EVERETT, WASHINGTON

REGION:

SCALE DEPICTED ABOVE

FIGURE 3
CROSS SECTION A-A'

2/4/2013
P:\0440 TOC Holdings Co\01-169 Everett - 851 Broadway\Technical\CAD\2013\RI\01-169_2013RI_XAA_F.dwg
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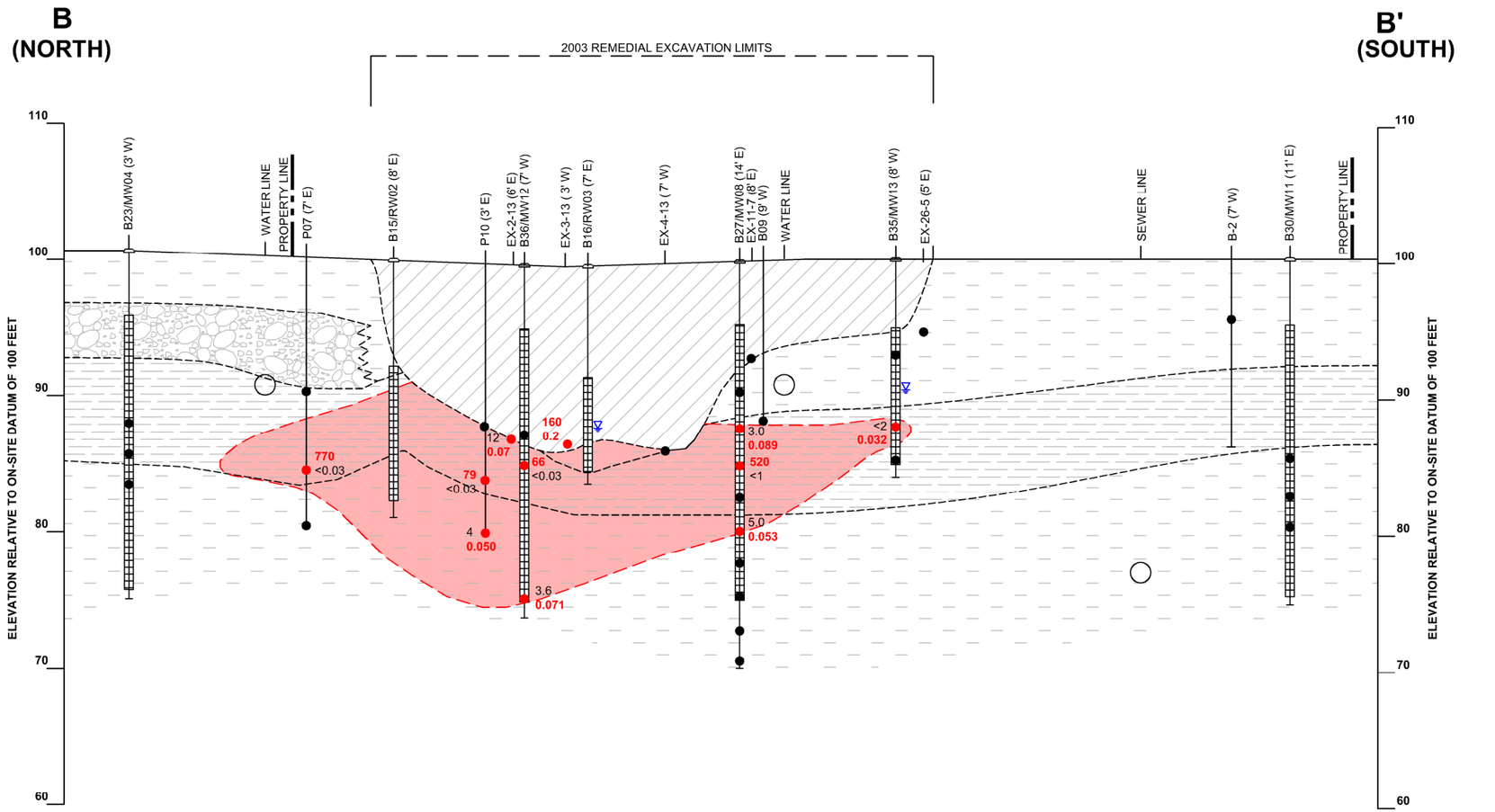

LEGEND

- EXCAVATION BACKFILL
- SILTY SAND
- SLAG
- SILT
- APPROXIMATE EXTENT OF PETROLEUM HYDROCARBONS IN SOIL ABOVE MTCA METHOD A CLEANUP LEVELS
- GEOLOGIC CONTACT

23 GASOLINE-RANGE PETROLEUM HYDROCARBONS
0.2 BENZENE

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN SOIL (MILLIGRAMS PER KILOGRAM):

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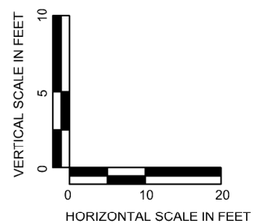
< RESULT BELOW LABORATORY REPORTING LIMIT

MTCA WASHINGTON STATE MODEL TOXICS CONTROL ACT

(6' W) OFFSET 6' WEST FROM SECTION LINE

- MONITORING WELL
- SCREEN INTERVAL
- GROUNDWATER LEVEL (AUGUST 14, 2012)

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.



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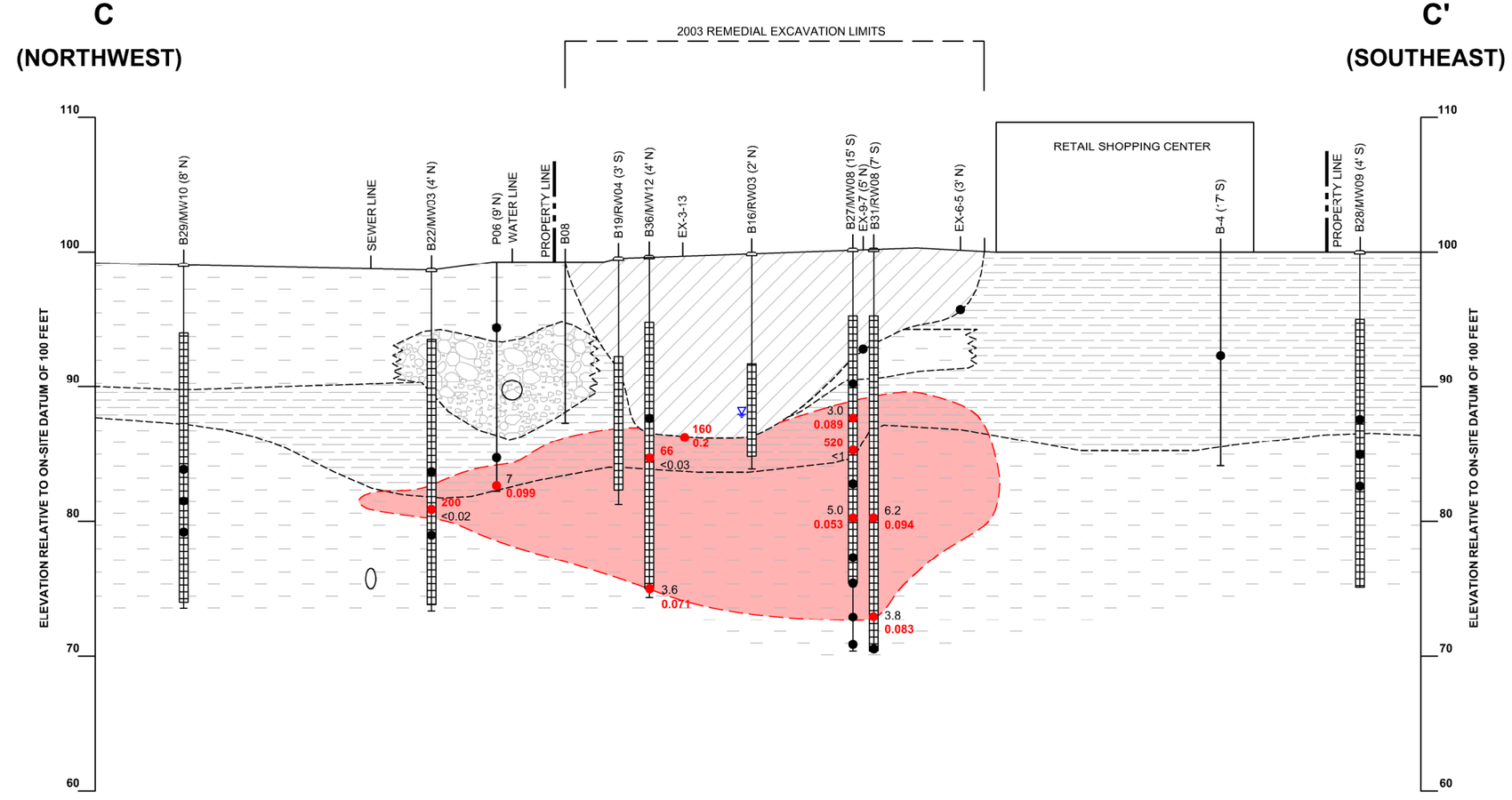
PROJECT NAME: TOC HOLDINGS CO. FACILITY 01-169
PROJECT NUMBER: 0440-002
STREET ADDRESS: 851 NORTH BROADWAY
CITY, STATE: EVERETT, WASHINGTON

REGION:

SCALE DEPICTED ABOVE

FIGURE 4
CROSS SECTION B-B'

C (NORTHWEST) — C' (SOUTHEAST)



LEGEND

- EXCAVATION BACKFILL
- SILTY SAND
- SLAG
- SILT
- APPROXIMATE EXTENT OF PETROLEUM HYDROCARBONS IN SOIL ABOVE MTCA METHOD A CLEANUP LEVELS
- GEOLOGIC CONTACT

23 GASOLINE-RANGE PETROLEUM HYDROCARBONS
0.2 BENZENE

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN SOIL (MILLIGRAMS PER KILOGRAM):

- CONCENTRATION BELOW MTCA METHOD A CLEANUP LEVEL
- CONCENTRATION ABOVE MTCA METHOD A CLEANUP LEVEL

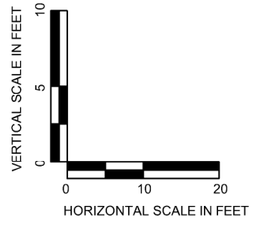
< RESULT BELOW LABORATORY REPORTING LIMIT

MTCA WASHINGTON STATE MODEL TOXICS CONTROL ACT

(6' W) OFFSET 6' WEST FROM SECTION LINE

MONITORING WELL
SCREEN INTERVAL
GROUNDWATER LEVEL (AUGUST 14, 2012)

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.



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CAD FILE: 01-169_2012RI_XCC

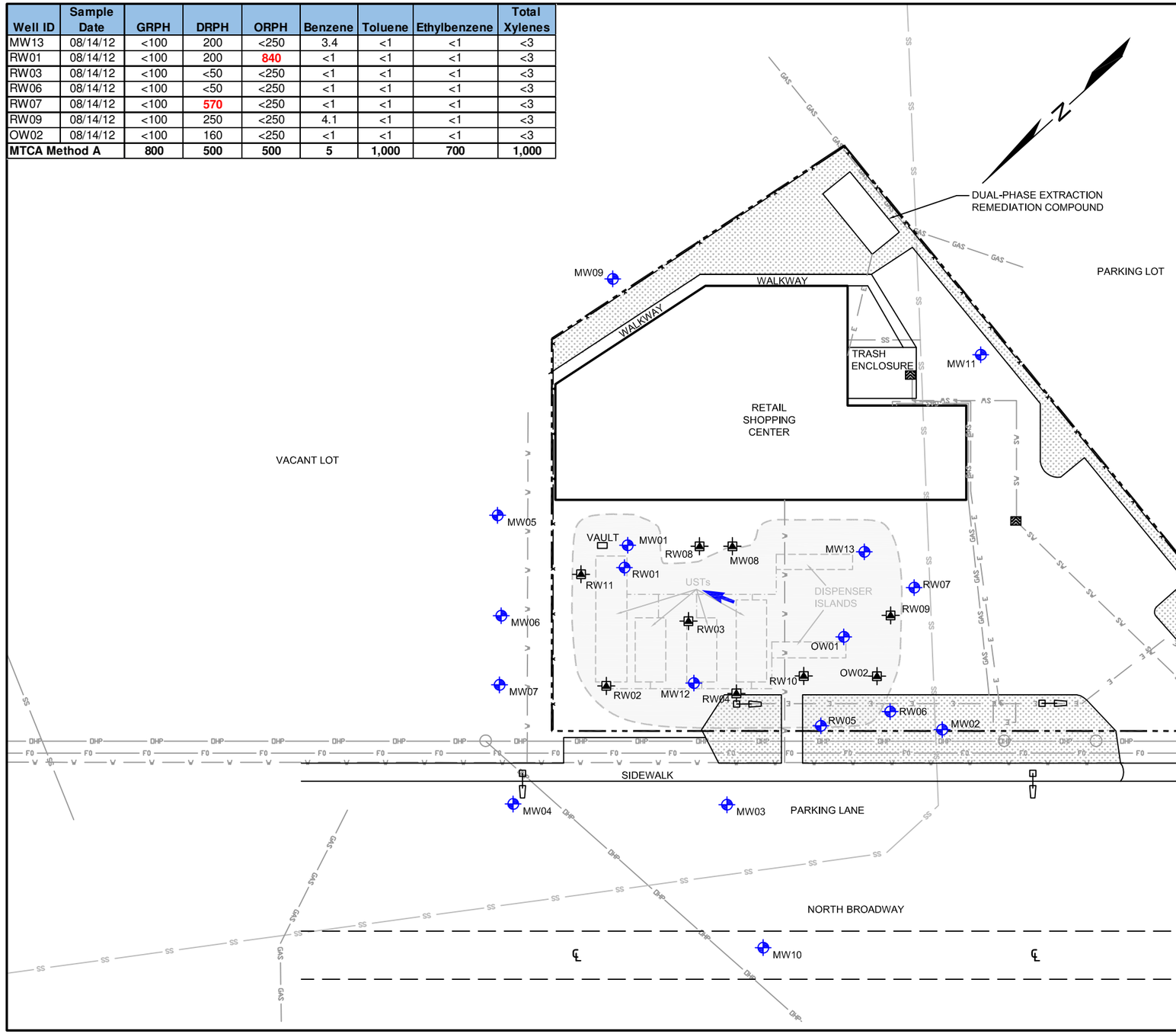
PROJECT NAME: TOC HOLDINGS CO. FACILITY 01-169
PROJECT NUMBER: 0440-002
STREET ADDRESS: 851 NORTH BROADWAY
CITY, STATE: EVERETT, WASHINGTON

REGION:

SCALE DEPICTED ABOVE

FIGURE 5
CROSS SECTION C-C'

Well ID	Sample Date	GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW13	08/14/12	<100	200	<250	3.4	<1	<1	<3
RW01	08/14/12	<100	200	840	<1	<1	<1	<3
RW03	08/14/12	<100	<50	<250	<1	<1	<1	<3
RW06	08/14/12	<100	<50	<250	<1	<1	<1	<3
RW07	08/14/12	<100	570	<250	<1	<1	<1	<3
RW09	08/14/12	<100	250	<250	4.1	<1	<1	<3
OW02	08/14/12	<100	160	<250	<1	<1	<1	<3
MTCA Method A		**800**	**500**	**500**	**5**	**1,000**	**700**	**1,000**



LEGEND

- B01/ MW01 — GROUNDWATER MONITORING WELL
- RW02 — REMEDIATION WELL
- CATCH BASIN
- POWER POLE
- AREA LIGHT
- PROPERTY BOUNDARY
- OVERHEAD POWER LINE
- BELOW GRADE ELECTRICAL LINE
- FIBER OPTIC LINE
- STORMWATER LINE
- 48-INCH-DIAMETER SEWER LINE
- WATER LINE
- GAS LINE
- FENCE
- FORMER SITE FEATURE
- FORMER FUEL DELIVERY PIPING
- EXCAVATION AREA (2003)
- LANDSCAPED AREA
- UST — UNDERGROUND STORAGE TANK
- GROUNDWATER FLOW DIRECTION (AUGUST 14, 2012)
- < — RESULT BELOW LABORATORY REPORTING LIMITS
- GRPH — GASOLINE-RANGE PETROLEUM HYDROCARBONS
- DRPH — DIESEL-RANGE PETROLEUM HYDROCARBONS
- ORPH — OIL-RANGE PETROLEUM HYDROCARBONS
- MTCA — WASHINGTON STATE MODEL TOXICS CONTROL ACT
- RED — DENOTES CONCENTRATION EXCEEDING MTCA METHOD A CLEANUP LEVEL FOR GROUNDWATER

RESULTS ARE PRESENTED IN MICROGRAMS PER LITER.

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DATE: 08/27/12
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PROJECT NAME: TOC HOLDINGS CO. FACILITY 01-169
PROJECT NUMBER: 0440-002
STREET ADDRESS: 851 NORTH BROADWAY
CITY, STATE: EVERETT, WASHINGTON

REGION:

0 7.5 15 30 60
APPROXIMATE SCALE IN FEET

FIGURE 6
GROUNDWATER ANALYTICAL RESULTS
(AUGUST 14, 2012)

3/6/2013
P:\0440 TOC HOLDINGS CO\01-169 EVERETT - 851 BROADWAY\TECHNICAL\CAD\2013RI\01-169_2013RI_GD_F.DWG
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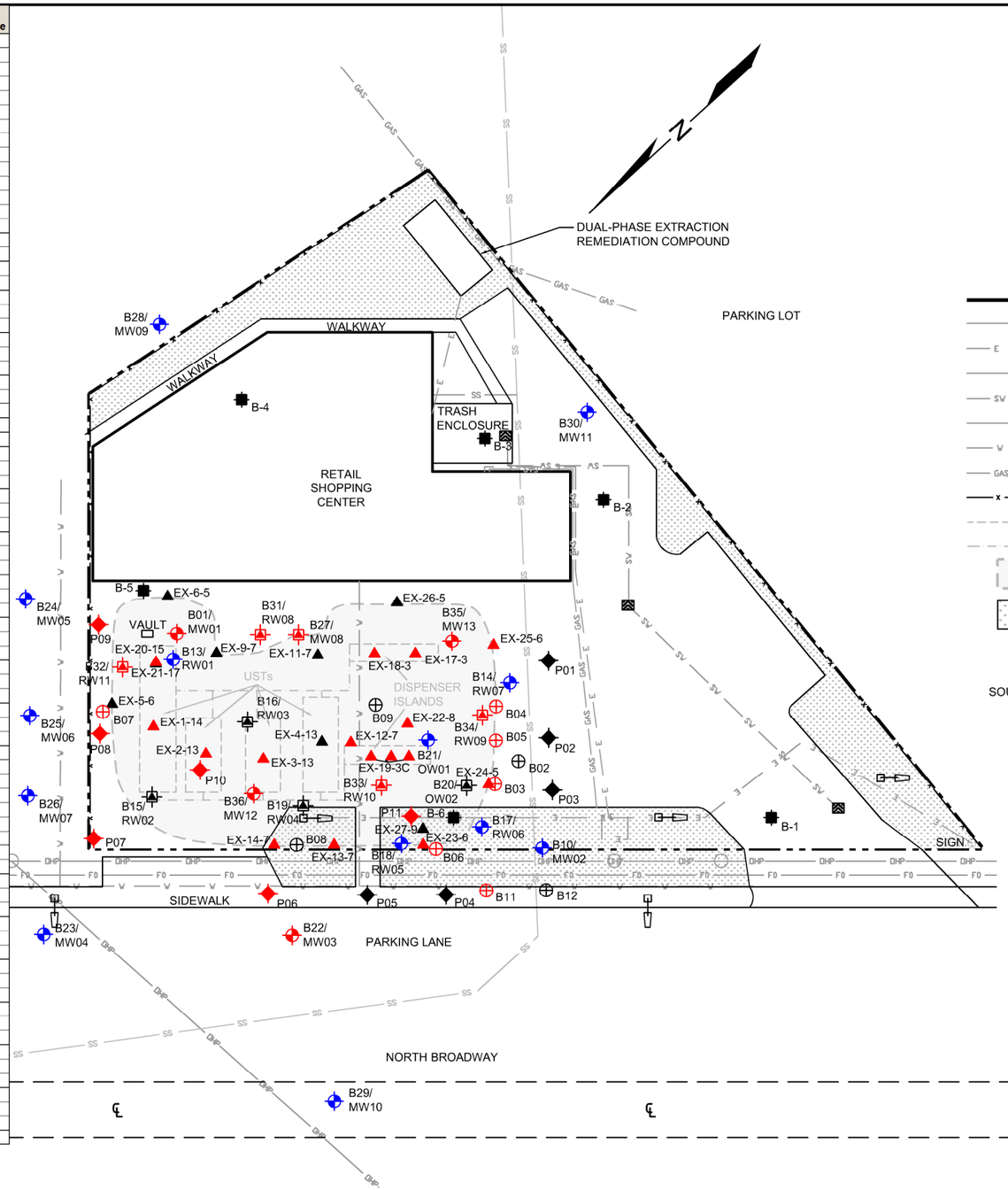
Sample Location	Sample Date	Sample Depth	GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
EX-1-14	12/02/03	14	120	0.2	<0.1	1.4	10	--
EX-2-13	12/02/03	13	12	0.07	0.1	0.3	2.3	--
EX-3-13	12/02/03	13	160	0.2	0.1	2.0	12	--
EX-12-7	12/02/03	7	69	0.3	<0.05	0.3	2.1	--
EX-13-7	12/02/03	7	93	<0.06	0.1	0.6	4.4	--
EX-14-7	12/02/03	7	23	0.2	1.4	0.4	2.0	--
EX-17-3	12/02/03	3	3,900	<3.0	10	22	150	--
EX 18-3	12/02/03	3	4,700	<3.0	50	39	220	--
EX 19-3C	12/02/03	3	990	0.8	3.4	90	51	--
EX-20-15	12/02/03	15	14,000	42	33	200	1,100	35
EX-22-8	12/05/03	8	<3	1.0	<0.05	<0.05	<0.2	--
EX-23-6	12/05/03	6	2,800	3.6	33	30	150	--
EX-24-5	12/05/03	5	6,200	<3.0	7.1	68	320	--
EX-25-6	12/05/03	6	6	0.05	<0.05	<0.05	0.4	--
B01/MW01	10/06/04	17	32.7	<0.03	<0.05	<0.05	0.419	--
	10/06/04	18	<8.08	<0.0485	<0.0808	<0.0808	<0.162	--
B03	10/06/04	7	64.3	0.628	0.0826	1.44	6.47	--
	10/06/04	8	62.5	0.692	<0.102	<0.102	0.286	--
B04	10/06/04	5	<5.00	0.0530	<0.0500	<0.0500	<0.100	--
	10/06/04	6	<6.34	0.215	<0.0634	<0.0634	0.384	--
	10/06/04	7	<5.99	0.124	<0.0599	<0.0599	0.305	--
B05	10/06/04	4	<6.21	0.0597	<0.0621	<0.0621	<0.124	--
	10/06/04	5	<6.66	0.101	<0.0666	<0.0666	0.294	--
	10/06/04	7	10.2	0.196	<0.0608	<0.0608	1.72	--
B06	10/06/04	4	18.4	0.256	<0.0366	0.314	2.01	--
	10/06/04	11.5	338	0.187	0.0780	1.36	6.76	--
	10/06/04	14	101	0.388	<0.0500	0.495	1.99	--
B07	10/07/04	16	364	0.208	1.51	2.72	13.4	--
B11	10/07/04	12	13.0	0.123	0.0832	0.112	0.298	--
P06	06/23/09	6	<2	<0.03	<0.05	<0.05	<0.2	<0.05
	06/23/09	15	<2	<0.03	<0.05	<0.05	<0.2	<0.05
	06/23/09	17	7	0.099	0.15	<0.05	1.7	0.11
P07	06/24/09	10	<2	<0.03	<0.05	<0.05	<0.2	<0.05
	06/24/09	16	770	<0.03	0.052	3.0	28	50
	06/24/09	20	<2	<0.03	<0.05	<0.05	<0.2	<0.05
P08	06/24/09	12	<2	<0.03	<0.05	<0.05	<0.2	<0.05
	06/24/09	15	54	0.11	0.094	0.64	3.6	1.1
	06/24/09	20	6	0.088	0.14	0.065	0.51	0.083
P09	06/24/09	12	9	0.58	<0.05	0.35	1.3	0.15
	06/24/09	15	2,100	6.9	110	42	253	18
	06/24/09	22	4	0.077	0.25	0.069	0.40	0.076
P10	06/24/09	12	<2	<0.03	<0.05	<0.05	<0.2	<0.05
	06/24/09	16	79	<0.03	<0.05	0.72	<1.4	0.29
	06/24/09	20	4	0.050	<0.05	0.13	<0.55	0.059
P11	06/24/09	12	<2	<0.03	<0.05	0.052	<0.2	<0.05
	06/24/09	16	<2	<0.03	<0.05	<0.05	<0.2	<0.05
	06/24/09	20	630	0.60	3.3	4.1	31	11
B22/MW03	11/15/10	15	<2	<0.02	<0.02	<0.02	<0.06	--
	11/15/10	18	200	<0.02	0.20	0.53	4.9	--
	11/15/10	20	<2	<0.02	0.22	<0.02	0.098	--
B27/MW08	11/16/10	10	<2	<0.02	<0.02	<0.02	<0.06	--
	11/16/10	12.5	3.0	0.089	<0.02	0.053	<0.06	--
	11/16/10	15	520	<1	3.0	6.1	42	--
	11/16/10	17.5	<20	<0.2	0.95	<0.2	1.4	--
	11/16/10	20	5.0	0.053	0.39	0.073	0.63	--
	11/16/10	22.5	<20	<0.2	0.48	<0.2	0.84	--
	11/16/10	25	<2	<0.02	0.077	<0.02	0.13	--
	11/16/10	27.5	<2	0.028	0.11	<0.02	0.16	--
	11/16/10	30	<2	<0.02	<0.02	<0.02	<0.06	--
B31/RW08	06/15/11	20	6.2	0.094	0.59	0.17	0.82	0.11
	06/15/11	27.5	3.8	0.083	0.45	0.066	0.43	--
	06/15/11	30	<2	0.026	0.20	0.045	0.22	--
B32/RW11	06/15/11	15	--	0.056	<0.05	<0.05	<0.2	<0.05
	06/15/11	20	<2	0.048	<0.02	0.080	0.14	--
	06/15/11	25	<2	<0.02	<0.02	<0.02	0.073	<0.05
B33/RW10	06/15/11	17.5	3,300	2.4	83	48	276	17
	06/15/11	22.5	6.2	0.024	0.16	0.095	0.51	--
	06/15/11	25	<2	0.024	0.093	0.031	0.18	--
B34/RW09	06/16/11	5	6.2	0.038	<0.05	<0.05	0.45	<0.05
	06/16/11	12.5	14	0.051	<0.02	<0.02	0.075	--
	06/16/11	15	<2	<0.02	<0.02	<0.02	<0.06	--
B35/MW13	06/16/11	7.5	<2	<0.02	<0.02	<0.02	<0.06	--
	06/16/11	12.5	<2	0.032	<0.02	<0.02	<0.06	--
	06/16/11	15	<2	<0.02	<0.02	<0.02	<0.06	--
B36/MW12	06/16/11	12.5	<2	<0.02	<0.02	<0.02	<0.06	--
	06/16/11	15	66	<0.03	<0.05	0.42	2.6	0.25
	06/16/11	25	3.6	0.071	0.19	0.053	0.30	--
MTCA Method A Cleanup Level			**30**	**0.03**	**7**	**6**	**9**	**5**



LEGEND

- B01/ MW01 — GROUNDWATER MONITORING WELL (SOUNDEARTH)
- RW01 — REMEDIATION WELL (SOUNDEARTH)
- B12 — SOIL BORING (SOUNDEARTH 2004)
- B-1 — SOIL BORING (EPI 2006)
- P06 — PUSH-PROBE SOIL BORING (SOUNDEARTH 2009)
- EX-25-6 — EXCAVATION SOIL SAMPLE LOCATION (GEI 2003)
- CATCH BASIN
- POWER POLE
- AREA LIGHT
- PROPERTY BOUNDARY
- OVERHEAD POWER LINE
- BELOW GRADE ELECTRICAL LINE
- FIBER OPTIC LINE
- STORMWATER LINE
- 48-INCH-DIAMETER SEWER LINE
- WATER LINE
- GAS LINE
- FENCE
- FORMER SITE FEATURE
- FORMER FUEL DELIVERY PIPING
- EXCAVATION AREA (2003)
- LANDSCAPED AREA

EPI	ENVIRONMENTAL PARTNERS, INC.
GEI	GEOENGINEERS, INC.
SOUNDEARTH	SOUNDEARTH STRATEGIES, INC.
UST	UNDERGROUND STORAGE TANK
<	RESULT BELOW LABORATORY REPORTING LIMIT
--	NOT ANALYZED/NOT MEASURED
GRPH	GASOLINE-RANGE PETROLEUM HYDROCARBONS
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT
RED	DENOTES CONCENTRATIONS EXCEEDING MTCA METHOD A CLEANUP LEVEL FOR SOIL

RESULTS ARE PRESENTED IN MILLIGRAMS PER KILOGRAM.

SAMPLE LOCATIONS ARE APPROXIMATE
SOURCES: GEI 2003, EPI 2008 FIGURES

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CAD FILE: 01-169_2012RI_SD

PROJECT NAME: TOC HOLDINGS CO. FACILITY 01-169
PROJECT NUMBER: 0440-002
STREET ADDRESS: 851 NORTH BROADWAY
CITY, STATE: EVERETT, WASHINGTON

REGION:

0 7.5 15 30 60
APPROXIMATE SCALE IN FEET

FIGURE 7
SOIL ANALYTICAL RESULTS FOR SAMPLE LOCATIONS EXCEEDING MTCA METHOD A CLEANUP LEVELS

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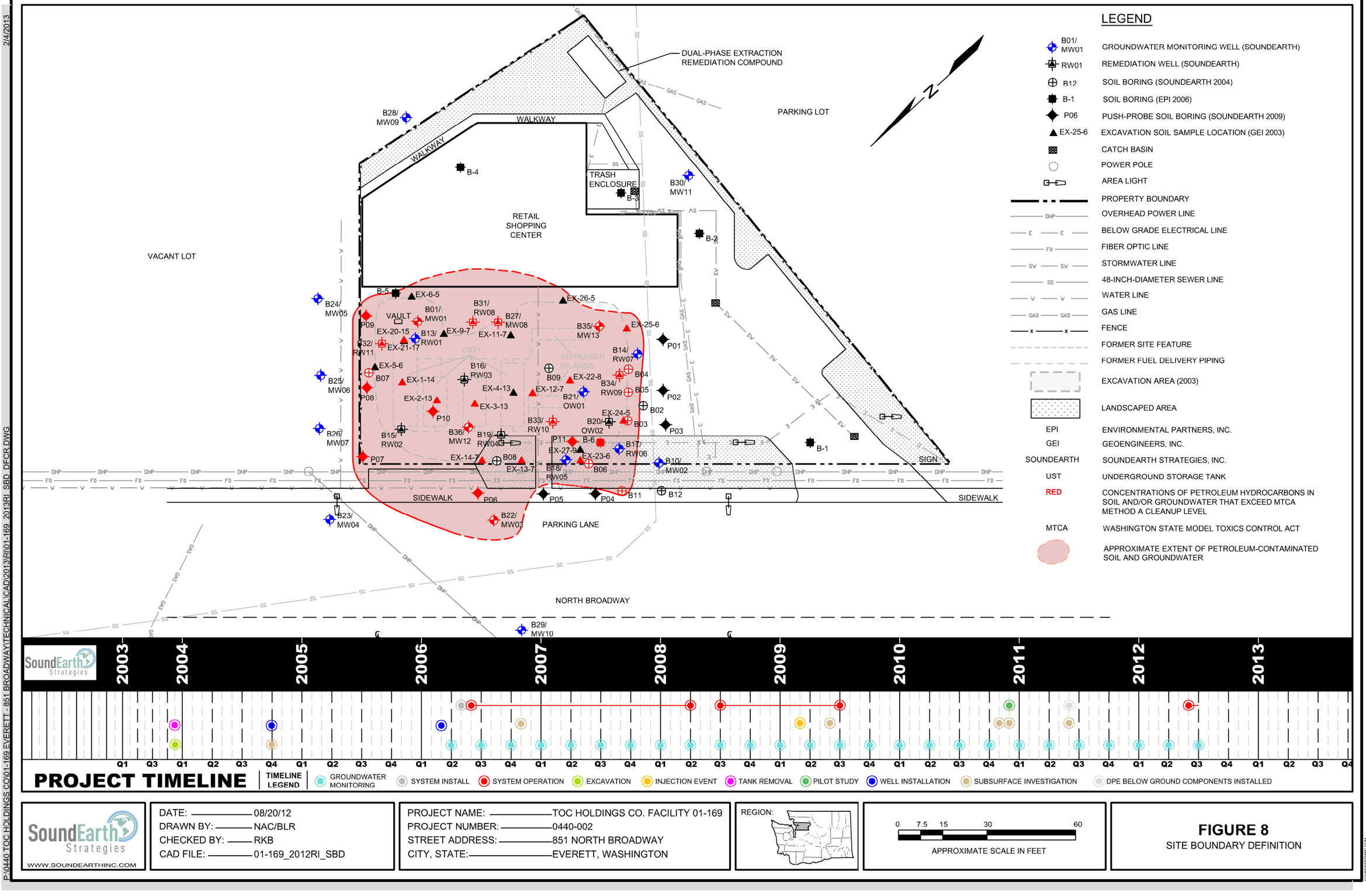

LEGEND

- B01/ MW01 — GROUNDWATER MONITORING WELL (SOUNDEARTH)
- RW01 — REMEDIATION WELL (SOUNDEARTH)
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- EXCAVATION AREA (2003)
- LANDSCAPED AREA

EPI	ENVIRONMENTAL PARTNERS, INC.
GEI	GEOENGINEERS, INC.
SOUNDEARTH	SOUNDEARTH STRATEGIES, INC.
UST	UNDERGROUND STORAGE TANK
RED	CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN SOIL AND/OR GROUNDWATER THAT EXCEED MTCA METHOD A CLEANUP LEVEL
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT

APPROXIMATE EXTENT OF PETROLEUM-CONTAMINATED SOIL AND GROUNDWATER

PROJECT TIMELINE

TIMELINE LEGEND: GROUNDWATER MONITORING | SYSTEM INSTALL | SYSTEM OPERATION | EXCAVATION | INJECTION EVENT | TANK REMOVAL | PILOT STUDY | WELL INSTALLATION | SUBSURFACE INVESTIGATION | DPE BELOW GROUND COMPONENTS INSTALLED

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DATE: 08/20/12
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CAD FILE: 01-169_2012RI_SBD

PROJECT NAME: TOC HOLDINGS CO. FACILITY 01-169
PROJECT NUMBER: 0440-002
STREET ADDRESS: 851 NORTH BROADWAY
CITY, STATE: EVERETT, WASHINGTON

REGION:

0 7.5 15 30 60
APPROXIMATE SCALE IN FEET

FIGURE 8
SITE BOUNDARY DEFINITION

P:\0440 TOC HOLDINGS CO\01-169 EVERETT - 851 BROADWAY\TECHNICAL\CAD\2013RI\01-169_2013RI_SBD_DFCR.DWG

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TABLES

SoundEarth Strategies

Table 1
Summary of Groundwater Data
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	Analytical Results (µg/L)											Lead[6]		Arsenic[6]	
				GRPH[3]	DRPH[4]	ORPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	Naphthalene[5]	MTBE[5]	EDB[5]	EDC[5]	Total	Dissolved	Total	Dissolved
MW01	10/07/04	--	--	**3,140**	<500	<1,000	0.666	0.736	57.9	239	19.1	<20.0	<10.0	<10.0	1.09	--	--	--
TOC (feet): 100.00	05/04/06	11.73	88.27	<50.0	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--
	07/20/06	19.29	80.71	<100	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--
	11/08/06	19.30	80.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/06/07	14.10	85.90	<100	--	--	<1	<1	<1	<3	--	--	--	--	5.90	<1	3.21	1.31
	06/08/07	11.16	88.84	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	1.26	1.15
	08/14/07	17.18	82.82	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	01/09/00	18.28	81.72	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/19/08	9.91	90.09	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	06/27/08	9.27	90.73	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/12/08	9.41	90.59	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/26/08	8.08	91.92	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	03/31/09	7.80	92.20	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	06/19/09	9.82	90.18	<100	--	--	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--
	08/28/09	9.81	90.19	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/25/09	7.56	92.44	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--
	01/28/10	7.82	92.18	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	06/09/10	7.15	92.85	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	08/18/10	8.38	91.62	<100	<50	<250	<0.35	<1	<1	<3	<5	<1	<1	<1	--	--	--	--
	11/09/10	7.58	92.42	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/16/11	7.46	92.54	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	05/19/11	7.50	92.50	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/18/11	11.20	88.80	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/21/11	10.95	89.05	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/15/12	10.73	89.27	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	05/17/12	9.87	90.13	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW02	05/04/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.30	07/19/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/08/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/06/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/08/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/29/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/19/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/27/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/12/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/26/08	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/31/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/25/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	01/28/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**800/1,000[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**		**5**	

SoundEarth Strategies

Table 1
Summary of Groundwater Data
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	Analytical Results (µg/L)															
				GRPH[3]	DRPH[4]	ORPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	Naphthalene[5]	MTBE[5]	EDB[5]	EDC[5]	Lead[6]		Arsenic[6]	
															Total	Dissolved	Total	Dissolved
MW02 (continued)	06/09/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.30	08/18/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/09/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW03	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.94	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW04	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 100.46	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/17/12	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW05	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 100.40	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 100.41	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW06	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 100.96	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 101.94	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**800/1,000[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**		**5**	

SoundEarth Strategies

Table 1
Summary of Groundwater Data
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	Analytical Results (µg/L)															
				GRPH[3]	DRPH[4]	ORPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	Naphthalene[5]	MTBE[5]	EDB[5]	EDC[5]	Lead[6]		Arsenic[6]	
															Total	Dissolved	Total	Dissolved
MW07	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 100.19	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 101.17	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW08	12/21/10	24.34	75.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.97	02/16/11	23.49	76.48	27,000	1,600[x]	<250	1,700	14,000	2,300	14,000	430	--	--	--	--	20.6	--	--
	05/19/11	24.12	75.85	30,000	1,800[x]	<250[j]	1,600	11,000	1,800	10,800	270	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.11	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.33	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW09	12/21/10	11.34	88.37	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
TOC (feet): 99.71	02/16/11	9.85	89.86	<100	130[x]	<250	<0.35	<1	<1	<3	<1	--	--	--	--	<1	--	--
	05/19/11	10.15	89.56	100	90	<250	<0.35	<1	<1	<3	<1	--	--	--	--	<1	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/16/12	16.59	83.12	<100	310[x]	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
TOC (feet): 99.69	05/18/12	10.84	88.85	<100	200	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW10	12/21/10	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.18	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW11	12/21/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.62	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**800/1,000[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**		**5**	

SoundEarth Strategies

Table 1
Summary of Groundwater Data
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	Analytical Results (µg/L)														
				GRPH[3]	DRPH[4]	ORPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	Naphthalene[5]	MTBE[5]	EDB[5]	EDC[5]	Lead[6]		Arsenic[6]	
															Total	Dissolved	Total	Dissolved
MW12	08/19/11	10.86	89.02	1,000	56[x]	<250	6.7	<1	44	<3	13	--	--	--	--	<1	--	--
TOC (feet): 99.88	11/22/11	10.65	89.23	190	<50	<250	1.3	<1	4.2	<3	<1	--	--	--	--	--	--	<1
	02/16/12	10.20	89.68	<100	<50	<250	<0.35	<1	<1	<3	<1	--	--	--	--	--	--	--
TOC (feet): 99.86	05/18/12	9.50	90.36	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW13	08/19/11	10.00	89.58	<100	<50	<250	21	<1	<1	<3	<1	--	--	--	--	<1	--	--
TOC (feet): 99.58	11/21/11	12.53	87.05	350[x]	<50	<250	160	<1	<1	<3	<1	--	--	--	--	--	--	<1
	02/16/12	11.22	88.36	<100	170[x]	<250	2.3	<1	<1	<3	--	--	--	--	--	--	--	--
	05/17/12	10.28	89.30	<100	170[x]	<250	6.1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	9.58	90.00	<100	200[x]	<250	3.4	<1	<1	<3	--	--	--	--	--	--	--	--
RW01	05/03/06	10.12	89.33	<50.0	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--
TOC (feet): 99.45	07/20/06	17.14	82.31	<100	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--
	11/08/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/06/07	10.39	89.06	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	<1	1.10[c]
	06/08/07	10.15	89.30	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	<1	1.04[c]
	08/14/07	10.71	88.74	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/29/07	10.97	88.48	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/19/08	9.32	90.13	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	06/27/08	8.71	90.74	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/12/08	9.15	90.30	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/26/08	7.62	91.83	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	03/31/09	7.25	92.20	<100	72[x]	300	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	06/19/09	9.29	90.16	<100	--	--	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--
	08/28/09	9.28	90.17	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/25/09	7.01	92.44	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--
	01/28/10	7.25	92.20	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	06/09/10	6.63	92.82	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	08/18/10	7.84	91.61	<100	<50	<250	<0.35	<1	<1	<3	<5	<1	<1	<1	--	--	--	--
	11/09/10	7.04	92.41	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/16/11	6.95	92.50	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	05/19/11	7.95	91.50	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/18/11	10.50	88.95	<100	<50	<250	<1	7.3	<1	<3	--	--	--	--	--	--	--	--
	11/21/11	10.18	89.27	<100	<50	<250	<1	<1	<1	<3	--	--	---	--	--	--	--	--
	02/15/12	9.73	89.72	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
TOC (feet): 99.47	05/18/12	9.08	90.39	<100	54[x]	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	15.86	83.61	<100	200[x]	840	<1	<1	<1	<3	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**800/1,000[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**		**5**	

SoundEarth Strategies

Table 1
Summary of Groundwater Data
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	Analytical Results (µg/L)															
				GRPH[3]	DRPH[4]	ORPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	Naphthalene[5]	MTBE[5]	EDB[5]	EDC[5]	Lead[6]		Arsenic[6]	
															Total	Dissolved	Total	Dissolved
RW02	05/03/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.63	07/20/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/08/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/06/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/08/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/29/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/19/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/27/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/12/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/26/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/31/09	15.45	84.18	560	510[x]	<250	3	15	4	81	--	--	--	--	--	--	--	--
	06/19/09	15.95	83.68	110	--	--	2.0	<1	1.0	15.1	<1	<1	<1	<1	--	--	--	--
	08/27/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/25/09	15.40	84.23	8,800	1,100[x]	<250	67	280	82	2,190	100	<1	<1	<1	--	3.61	--	--
	01/28/10	15.20	84.43	9,000	1,000[x]	<250	120	140	130	2,040	150	<1	<1	<1	--	--	--	--
	06/09/10	11.94	87.69	840	67[x]	<250	2.5	26	24	214	4.6	<1	<1	<1	--	--	--	--
	08/18/10	16.36	83.27	14,000	4,200[x]	<250	97	490	460	3,980	<500	<1	<1	<1	--	--	--	--
	11/09/10	14.48	85.15	22,000	1,200[x]	<250	140	420	820	5,400	360	--	--	--	--	--	--	--
	02/16/11	11.75	87.88	290	<50	<250	1.9	2.8	11	57	--	--	--	--	--	--	--	--
	05/18/11	12.82	86.81	17,000	1,500[x]	<250	44	160	790	3,770	220	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.67	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.88	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RW03	05/03/06	9.48	89.74	345	--	--	0.670	<0.500	4.71	41.7	--	<5.00	<0.500	<0.500	--	--	--	--
TOC (feet): 99.22	07/21/06	11.63	87.59	<100	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--
	11/08/06	11.50	87.72	<100	--	--	<1	<1	<1	<3	--	<1	<1	<1	--	<1	--	--
	02/06/07	9.68	89.54	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	<1	<1
	06/08/07	9.44	89.78	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	<1	1.05[c]
	08/14/07	10.06	89.16	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/29/07	10.62	88.60	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/19/08	8.91	90.31	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	06/27/08	8.27	90.95	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/12/08	8.65	90.57	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/26/08	8.22	91.00	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	03/31/09	7.04	92.18	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	06/19/09	8.92	90.30	<100	--	--	<1	<1	<1	<3	<1	1.5	<1	<1	--	<1	--	--
	08/28/09	8.90	90.32	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/25/09	6.82	92.40	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--
	01/29/10	7.05	92.17	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	06/09/10	6.58	92.64	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**800/1,000[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**		**5**	

SoundEarth Strategies

Table 1
Summary of Groundwater Data
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	Analytical Results (µg/L)											Lead[6]		Arsenic[6]	
				GRPH[3]	DRPH[4]	ORPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	Naphthalene[5]	MTBE[5]	EDB[5]	EDC[5]	Total	Dissolved	Total	Dissolved
RW03 (continued)	08/18/10	7.55	91.67	<100	<50	<250	<0.35	<1	<1	<3	<5	<1	<1	<1	--	--	--	--
TOC (feet): 99.22	11/09/10	6.90	92.32	<100	120[2]	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/16/11	6.80	92.42	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	05/18/11	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	10.15	89.07	<100	<50	<250	<1	4.1	<1	<3	--	--	--	--	--	--	--	--
TOC (feet): 99.41	11/21/11	10.03	89.38	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/16/12	9.61	89.80	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
TOC (feet): 99.66	05/18/12	8.94	90.72	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	11.88	87.78	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
RW04	05/03/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.87	07/19/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/08/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/06/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/08/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/29/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/19/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/27/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/12/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/26/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/31/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/25/09	15.66	83.21	350	<50	<250	27	40	5.6	88	<1	1.6	<1	<1	--	<1	--	--
	01/28/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/09/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/09/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.06	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.27	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RW05	05/03/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.30	07/19/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/08/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/06/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/08/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/29/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/19/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/27/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**800/1,000[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**		**5**	

SoundEarth Strategies

Table 1
Summary of Groundwater Data
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	Analytical Results (µg/L)															
				GRPH[3]	DRPH[4]	ORPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	Naphthalene[5]	MTBE[5]	EDB[5]	EDC[5]	Lead[6]		Arsenic[6]	
															Total	Dissolved	Total	Dissolved
RW05 (continued)	08/12/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.30	11/26/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/31/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.72	11/25/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	01/28/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.29	06/09/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/09/10	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/16/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	05/18/12	15.19	83.10	1,200	650[x]	<250	260	47	24	127	3.0	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RW06	05/04/06	10.82	87.43	77.4	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--
TOC (feet): 98.25	07/19/06	9.90	88.35	<100	--	--	<0.500	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--
	11/08/06	9.78	88.47	<100	--	--	<1	<1	<1	<3	--	<1	<1	<1	--	--	--	--
	02/06/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/08/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/29/07	10.89	87.36	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/19/08	9.82	88.43	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	06/27/08	10.86	87.39	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/12/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/26/08	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/31/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/09	9.92	88.33	<100	--	--	<1	<1	<1	<3	<1	<1	<1	<1	--	13.8	--	--
	08/28/09	9.80	88.45	<100	120	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/25/09	9.73	88.52	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--
	01/28/10	9.72	88.53	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	06/09/10	9.61	88.64	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	08/18/10	9.99	88.26	<100	81[z]	<250	<0.35	<1	<1	<3	<5	<1	<1	<1	--	--	--	--
	11/09/10	9.70	88.55	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/16/11	9.70	88.55	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	05/18/11	9.68	88.57	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/19/11	9.99	88.26	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/22/11	9.89	88.36	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/16/12	9.73	88.52	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
TOC (feet): 98.24	05/18/12	9.73	88.51	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	9.93	88.31	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**800/1,000[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**		**5**	

SoundEarth Strategies

Table 1
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TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	Analytical Results (µg/L)														
				GRPH[3]	DRPH[4]	ORPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	Naphthalene[5]	MTBE[5]	EDB[5]	EDC[5]	Lead[6]		Arsenic[6]	
															Total	Dissolved	Total	Dissolved
RW07	05/03/06	10.06	88.35	66.7	--	--	1.380	<0.500	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--
TOC (feet): 98.41	07/19/06	11.27	87.14	<100	--	--	4.10	3.63	<0.500	<3.00	--	<5.00	<0.500	<0.500	--	--	--	--
	11/08/06	10.70	87.71	<100	--	--	3.8	<1	<1	<3	--	<1	<1	<1	--	--	--	--
	02/06/07	9.13	89.28	<100	--	--	<1	<1	<1	<3	--	--	--	--	<1	<1	13.2	18.2[c]
	06/08/07	8.89	89.52	<100	--	--	3	<1	<1	<3	--	--	--	--	<1	<1	43.3	60.2[c]
	08/14/07	10.94	87.47	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/29/07	9.30	89.11	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/19/08	11.92	86.49	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	06/27/08	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/12/08	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/26/08	9.81	88.60	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	03/31/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/09	10.22	88.19	<100	--	--	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--
	08/28/09	8.87	89.54	<100	2,100[x]	1,900	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/25/09	9.10	89.31	<100	150[x]	840	<1	2.8	<1	<3	<1	5.9	<1	<1	--	<1	--	--
	01/29/10	9.29	89.12	<100	<50	<250	<1	<1	<1	<3	<1	4.7	<1	<1	--	--	--	--
	06/09/10	9.48	88.93	<100	62[x]	470	<0.35	<1	<1	<3	<1	4.5	<1	<1	--	--	--	--
	08/18/10	10.25	88.16	<100	470[x]	<250	<0.35	<1	<1	<3	<5	7.2	<1	<1	--	--	--	--
	11/09/10	9.73	88.68	<100	660[x]	360[x]	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/16/11	8.48	89.93	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	05/18/11	8.40	90.01	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/18/11	9.86	88.55	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	11/22/11	11.46	86.95	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/15/12	10.11	88.30	<100	620[x]	270[x]	<1	<1	<1	<3	--	--	--	--	--	--	--	--
TOC (feet): 98.40	05/17/12	11.38	87.02	<100	410	350[x]	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	10.33	88.07	<100	570[x]	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
RW08	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.32	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.49	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**800/1,000[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**		**5**	

SoundEarth Strategies

Table 1
Summary of Groundwater Data
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	Analytical Results (µg/L)											Lead[6]		Arsenic[6]	
				GRPH[3]	DRPH[4]	ORPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	Naphthalene[5]	MTBE[5]	EDB[5]	EDC[5]	Total	Dissolved	Total	Dissolved
RW09	08/19/11	11.58	86.54	170	<50	<250	**19**	<1	<1	<3	<1	--	--	--	--	<1	--	--
TOC (feet): 98.12	11/22/11	10.66	87.46	<100	<50	<250	**10**	<1	<1	<3	<1	--	--	--	--	<1	--	--
	02/16/12	10.19	87.93	<100	**770**[x]	330[x]	**10**	<1	<1	<3	--	--	--	--	--	--	--	--
TOC (feet): 98.09	05/17/12	11.45	86.64	<100	**520**	320[x]	**9.2**	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	10.82	87.27	<100	250[x]	<250	4.1	<1	<1	<3	--	--	--	--	--	--	--	--
RW10	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.76	11/22/11	20.06	78.70	<100	<50	<250	<0.35	<1	<1	<3	<1	--	--	--	--	<1	--	--
	02/16/12	15.85	82.91	<100	<50	<250	<1	<1	<1	3.8	--	--	--	--	--	--	--	--
TOC (feet): 99.02	05/18/12	8.94	90.08	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RW11	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.81	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	20.33	79.48	**3,400**	**1,200**[x]	<250	150	200	27	480	16	--	--	--	--	--	--	--
TOC (feet): 99.28	05/17/12	19.94	79.34	**14,000**	**1,200**[x]	<250	**560**	**1,400**	**360**	**2,770**	97	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OW01	05/03/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.95	07/19/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/08/06	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/06/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/08/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/29/07	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/19/08	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/27/08	7.99	90.96	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/12/08	9.94	89.01	180	--	--	**30**	2	2	<3	--	--	--	--	--	--	--	--
	11/26/08	6.88	92.07	<100	--	--	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	03/31/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/27/09	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/25/09	6.48	92.47	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	<1	--	--
	01/29/10	6.75	92.20	<100	<50	<250	<1	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	06/09/10	6.27	92.68	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	08/18/10	7.24	91.71	<100	<50	<250	<0.35	<1	<1	<3	<5	<1	<1	<1	--	--	--	--
	11/09/10	6.65	92.30	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/16/11	6.50	92.45	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	05/19/11	6.47	92.48	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/18/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/21/11	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/15/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 99.96	05/17/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08/14/12	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**800/1,000**[a]	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**		**5**	

SoundEarth Strategies

Table 1
Summary of Groundwater Data
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Well ID	Sample Date	Depth to Groundwater[1] (feet)	Groundwater Elevation[2] (feet)	Analytical Results (µg/L)											Lead[6]		Arsenic[6]	
				GRPH[3]	DRPH[4]	ORPH[4]	Benzene[5]	Toluene[5]	Ethylbenzene[5]	Total Xylenes[5]	Naphthalene[5]	MTBE[5]	EDB[5]	EDC[5]	Total	Dissolved	Total	Dissolved
OW02	05/04/06	10.42	88.52	**2,260**	--	--	**236**	7.63	70.1	313	--	**26.1**	<0.500	<0.500	--	--	--	--
TOC (feet): 98.94	07/19/06	9.87	89.07	**914**	--	--	**194**	0.990	45.3	8.72	--	**30.1**	<0.500	<0.500	--	--	--	--
	11/08/06	10.39	88.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/06/07	10.54	88.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/08/07	10.02	88.92	220	--	--	**22**	1	3	4	--	--	--	--	--	--	--	--
	08/14/07	10.02	88.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/29/07	10.55	88.39	300	--	--	**41**	3	5	13	--	--	--	--	--	--	--	--
	02/19/08	10.56	88.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/27/08	9.96	88.98	190	--	--	**38**	2	2	6	--	--	--	--	--	--	--	--
	08/12/08	10.24	88.70	180	--	--	**30**	2	2	<3	--	--	--	--	--	--	--	--
	11/26/08	10.10	88.84	260	--	--	**54**	3	6	8	--	--	--	--	--	--	--	--
TOC (feet): 99.05[b]	03/31/09	8.82	90.23	380	**1,400**	260[y]	**49**	2	10	38	--	--	--	--	--	--	--	--
	06/19/09	9.25	89.80	<100	--	--	**18**	<1	2.5	3	<1	3.8	<1	<1	--	<1	--	--
	08/28/09	9.31	89.74	<100	**510**	320	**23**	<1	2	<3	--	--	--	--	--	--	--	--
	11/25/09	9.33	89.72	<100	<50	<250	**7.6**	<1	<1	<3	<1	<1	<1	<1	--	1.17	--	--
	01/29/10	9.59	89.46	<100	<50	<250	3.5	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	06/09/10	8.95	90.10	<100	100[z]	**640**	1.5	<1	<1	<3	<1	<1	<1	<1	--	--	--	--
	08/18/10	9.60	89.45	<100	130[z]	<250	2.0	<1	<1	<3	<5	1.2	<1	<1	--	--	--	--
	11/09/10	9.91	89.14	<100	**660**[z]	**760**[z]	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	02/16/11	7.93	91.12	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	05/19/11	9.31	89.74	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/18/11	10.23	88.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOC (feet): 98.04	11/21/11	7.00	91.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02/16/12	8.55	89.49	<100	60[x]	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
TOC (feet): 97.83	05/18/12	8.53	89.30	<100	100[x]	250[x]	<1	<1	<1	<3	--	--	--	--	--	--	--	--
	08/14/12	8.49	89.34	<100	160[x]	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Groundwater[7]				**800/1,000[a]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**		**5**	

NOTES:

Red denotes concentrations exceeding the MTCA Method A cleanup level.

Samples analyzed by TestAmerica Laboratories, Inc. of Bothell, Washington, or Friedman & Bruya, Inc. of Seattle, Washington.

TOCs were surveyed relative to an arbitrary benchmark with an assumed elevation of 100.00 feet.

[1]Measured in feet below the top of the well casing.

[2]Calculated by subtracting the depth to groundwater from the TOC.

[3]Analyzed by Method NWTPH-Gx.

[4]Analyzed by Method NWTPH-Dx.

[5]Analyzed by EPA Method 8021B, 8260B, or 8260C.

[6]Analyzed by EPA Method 200.8.

[7]MTCA Cleanup Regulation, Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

[a]800 µg/L when benzene is present and 1,000 µg/L when benzene is not present.

[b]The TOC for OW02 was modified and resurveyed on March 16, 2009.

Laboratory Notes:

[c]The dissolved arsenic was greater than the total arsenic for the sample. The samples were reanalyzed by the laboratory with the same result.

[i]The result is below normal reporting limits. The value reported is an estimate.

[x,z]The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

[y]The pattern of peaks present is not indicative of motor oil.

-- = not analyzed/not measured

< = not detected at a concentration exceeding laboratory reporting limits

µg/L = micrograms per liter

DRPH = diesel-range petroleum hydrocarbons

Dry = measurable groundwater not encountered in well

EDB = ethylene dibromide (1,2-dibromoethane)

EDC = ethylene dichloride (1,2-dichloroethane)

EPA = U.S. Environmental Protection Agency

GRPH = gasoline-range petroleum hydrocarbons

MTBE = methyl tertiary-butyl ether

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbon

ORPH = oil-range petroleum hydrocarbons

TOC = top of well casing elevation

SoundEarth Strategies

Table 2
Summary of Soil Analytical Results for Petroleum Hydrocarbons
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Sample Depth (feet bgs)	Analytical Results (mg/kg)										
					GRPH[1]	DRPH[2]	ORPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]	Naphthalene[3]	MTBE[3]	EDB[3]	EDC[3]
UST Excavation	EX-1-14	12/02/03	GEI	14	120	--	--	0.2	<0.1	1.4	10	--	--	--	--
	EX-2-13	12/02/03	GEI	13	12	--	--	0.07	0.1	0.3	2.3	--	--	--	--
	EX-3-13	12/02/03	GEI	13	160	--	--	0.2	0.1	2.0	12	--	--	--	--
	EX-4-13	12/02/03	GEI	13	4	--	--	<0.03	<0.05	0.1	0.3	--	--	--	--
	EX-5-6	12/02/03	GEI	6	<3	--	--	<0.03	<0.05	<0.05	<0.2	--	--	--	--
	EX-6-5	12/02/03	GEI	5	<3	--	--	<0.03	<0.05	<0.05	<0.2	--	--	--	--
	EX-9-7	12/02/03	GEI	7	<3	--	--	<0.03	<0.05	<0.05	<0.2	--	--	--	--
	EX-11-7	12/02/03	GEI	7	<3	--	--	<0.03	<0.05	<0.05	<0.2	--	--	--	--
	EX-12-7	12/02/03	GEI	7	69	--	--	0.3	<0.05	0.3	2.1	--	--	--	--
	EX-13-7	12/02/03	GEI	7	93	--	--	<0.06	0.1	0.6	4.4	--	--	--	--
	EX-14-7	12/02/03	GEI	7	23	--	--	0.2	1.4	0.4	2.0	--	--	--	--
	EX-17-3[a]	12/02/03	GEI	3	3,900	--	--	<3.0	10	22	150	--	--	--	--
	EX 18-3[a]	12/02/03	GEI	3	4,700	--	--	<3.0	50	39	220	--	--	--	--
	EX 19-3C[4,a]	12/02/03	GEI	3	990	--	--	0.8	3.4	90	51	--	--	--	--
	EX-20-15[a]	12/02/03	GEI	15	14,000	--	--	42	33	200	1,100	35	<20	<1.1	<1.1
	EX-21-17	12/02/03	GEI	17	<3	--	--	<0.03	<0.05	<0.05	<0.2	<0.02	<0.1	<0.011	<0.011
	EX-22-8	12/05/03	GEI	8	<3	--	--	1.0	<0.05	<0.05	<0.2	--	--	--	--
	EX-23-6	12/05/03	GEI	6	2,800	--	--	3.6	33	30	150	--	--	--	--
	EX-24-5	12/05/03	GEI	5	6,200	--	--	<3.0	7.1	68	320	--	--	--	--
	EX-25-6	12/05/03	GEI	6	6	--	--	0.05	<0.05	<0.05	0.4	--	--	--	--
	EX-26-5	12/05/03	GEI	5	<3	--	--	<0.03	<0.05	<0.05	<0.2	--	--	--	--
	EX-27-9	12/05/03	GEI	9	<3	--	--	<0.03	<0.05	<0.05	<0.2	--	--	--	--
Stockpile	DSP-1	12/02/03	GEI	1	310	--	--	0.3	0.6	2.8	13	--	--	--	--
B01/MW01	B1-17	10/06/04	SoundEarth	17	32.7	--	--	<0.03	<0.05	<0.05	0.419	--	--	--	--
	B1-18	10/06/04	SoundEarth	18	<8.08	--	--	<0.0485	<0.0808	<0.0808	<0.162	--	--	--	--
B03	B3-7	10/06/04	SoundEarth	7	64.3	--	--	0.628	0.0826	1.44	6.47	--	--	--	--
	B3-8	10/06/04	SoundEarth	8	62.5	--	--	0.692	<0.102	<0.102	0.286	--	--	--	--
B04	B4-5	10/06/04	SoundEarth	5	<5.00	--	--	0.0530	<0.0500	<0.0500	<0.100	--	--	--	--
	B4-6	10/06/04	SoundEarth	6	<6.34	--	--	0.215	<0.0634	<0.0634	0.384	--	--	--	--
	B4-7	10/06/04	SoundEarth	7	<5.99	--	--	0.124	<0.0599	<0.0599	0.305	--	--	--	--
B05	B5-4	10/06/04	SoundEarth	4	<6.21	--	--	0.0597	<0.0621	<0.0621	<0.124	--	--	--	--
	B5-5	10/06/04	SoundEarth	5	<6.66	--	--	0.101	<0.0666	<0.0666	0.294	--	--	--	--
	B5-7	10/06/04	SoundEarth	7	10.2	--	--	0.196	<0.0608	<0.0608	1.72	--	--	--	--
MTCA Method A Cleanup Level for Soil[5]					**30/100[b]**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**	**5**	**0.1**	**0.005**	**NE**

SoundEarth Strategies

Table 2
Summary of Soil Analytical Results for Petroleum Hydrocarbons
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Sample Depth (feet bgs)	Analytical Results (mg/kg)										
					GRPH[1]	DRPH[2]	ORPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]	Naphthalene[3]	MTBE[3]	EDB[3]	EDC[3]
B06	B6-4	10/06/04	SoundEarth	4	18.4	--	--	**0.256**	<0.0366	0.314	2.01	--	--	--	--
	B6-11.5	10/06/04	SoundEarth	11.5	**338**	--	--	**0.187**	0.0780	1.36	6.76	--	--	--	--
	B6-14	10/06/04	SoundEarth	14	**101**	--	--	**0.388**	<0.0500	0.495	1.99	--	--	--	--
B07	B7-16	10/07/04	SoundEarth	16	**364**	--	--	**0.208**	1.51	2.72	**13.4**	--	--	--	--
B09	B9-12	10/07/04	SoundEarth	12	12.4	--	--	<0.0396	<0.0661	0.209	0.428	--	--	--	--
B11	B11-12	10/07/04	SoundEarth	12	13.0	--	--	**0.123**	0.0832	0.112	0.298	--	--	--	--
B12	B12-12	10/07/04	SoundEarth	12	20.6	--	--	<0.0300	<0.0500	0.107	0.120	--	--	--	--
B-1	B1@1.5	11/22/06	EPI	1.5	--	--	--	--	--	--	--	--	--	--	--
	B1@9.5	11/22/06	EPI	9.5	--	--	--	--	--	--	--	--	--	--	--
	B1@13	11/22/06	EPI	13	--	--	--	--	--	--	--	--	--	--	--
B-2	B2@2.5	11/22/06	EPI	2.5	--	--	--	--	--	--	--	--	--	--	--
	B2@4.5	11/22/06	EPI	4.5	<20	<25	230	--	--	--	--	--	--	--	--
	B2@14	11/22/06	EPI	14	--	--	--	--	--	--	--	--	--	--	--
B-3	B3@1.5	11/22/06	EPI	1.5	--	--	--	--	--	--	--	--	--	--	--
	B3@10	11/22/06	EPI	10	<20	<50	<100	--	--	--	--	--	--	--	--
	B3@15	11/22/06	EPI	15	--	--	--	--	--	--	--	--	--	--	--
B-4	B4@2	11/22/06	EPI	2	--	--	--	--	--	--	--	--	--	--	--
	B4@7.9	11/22/06	EPI	7.9	<20	<50	<100	--	--	--	--	--	--	--	--
	B4@16	11/22/06	EPI	16	--	--	--	--	--	--	--	--	--	--	--
B-5	B5@2.5	11/22/06	EPI	2.5	--	--	--	--	--	--	--	--	--	--	--
	B5@6	11/22/06	EPI	6	<20	<25	65	--	--	--	--	--	--	--	--
	B5@12	11/22/06	EPI	12	--	--	--	--	--	--	--	--	--	--	--
B-6	B6@2.5	11/22/06	EPI	2.5	--	--	--	--	--	--	--	--	--	--	--
	B6@10	11/22/06	EPI	10	<20	<50	<100	--	--	--	--	--	--	--	--
	B6@13	11/22/06	EPI	13	--	--	--	--	--	--	--		--	--	--
P01	P01-07	06/23/09	SoundEarth	7	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P01-10	06/23/09	SoundEarth	10	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P01-19	06/23/09	SoundEarth	19	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
P02	P02-12	06/23/09	SoundEarth	12	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P02-14	06/23/09	SoundEarth	14	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P02-17	06/23/09	SoundEarth	17	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
P03	P03-12	06/23/09	SoundEarth	12	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P03-14	06/23/09	SoundEarth	14	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P03-19	06/23/09	SoundEarth	19	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
MTCA Method A Cleanup Level for Soil[5]					**30/100[b]**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**	**5**	**0.1**	**0.005**	**NE**

SoundEarth Strategies

Table 2
Summary of Soil Analytical Results for Petroleum Hydrocarbons
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Sample Depth (feet bgs)	Analytical Results (mg/kg)										
					GRPH[1]	DRPH[2]	ORPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]	Naphthalene[3]	MTBE[3]	EDB[3]	EDC[3]
P04	P04-07	06/23/09	SoundEarth	7	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P04-16	06/23/09	SoundEarth	16	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P04-19	06/23/09	SoundEarth	19	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
P05	P05-06	06/23/09	SoundEarth	6	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P05-19	06/23/09	SoundEarth	19	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
P06	P06-06	06/23/09	SoundEarth	6	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P06-15	06/23/09	SoundEarth	15	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.005	<0.05	<0.05
	P06-17	06/23/09	SoundEarth	17	7	<50	<250	**0.099**	0.15	<0.05	1.7	0.11	<0.005	<0.05	<0.05
P07	P07-10	06/24/09	SoundEarth	10	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	P07-16	06/24/09	SoundEarth	16	**770**[d]	950[x]	<250	<0.03	0.052	3.0	**28**	**50**	<0.05	<0.05	<0.05
	P07-20	06/24/09	SoundEarth	20	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
P08	P08-12	06/24/09	SoundEarth	12	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	P08-15	06/24/09	SoundEarth	15	**54**	71[x]	<250	**0.11**	0.094	0.64	3.6	1.1	<0.05	<0.05	<0.05
	P08-20	06/24/09	SoundEarth	20	6	<50	<250	**0.088**	0.14	0.065	0.51	0.083	<0.05	<0.05	<0.05
P09	P09-12	06/24/09	SoundEarth	12	9	<50	<250	**0.58**	<0.05	0.35	1.3	0.15	<0.05	<0.05	<0.05
	P09-15	06/24/09	SoundEarth	15	**2,100**[d]	470[x]	<250	**6.9**	**110**	**42**	**253**	**18**	<0.05	<0.05	<0.05
	P09-22	06/24/09	SoundEarth	22	4	<50	<250	**0.077**	0.25	0.069	0.40	0.076	<0.05	<0.05	<0.05
P10	P10-12	06/24/09	SoundEarth	12	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	P10-16	06/24/09	SoundEarth	16	**79**	<50	<250	<0.03	<0.05	0.72	<1.4	0.29	<0.05	<0.05	<0.05
	P10-20	06/24/09	SoundEarth	20	4	<50	<250	**0.050**	<0.05	0.13	<0.55	0.059	<0.05	<0.05	<0.05
P11	P11-12	06/24/09	SoundEarth	12	<2	<50	<250	<0.03	<0.05	0.052	<0.2	<0.05	<0.05	<0.05	<0.05
	P11-16	06/24/09	SoundEarth	16	<2	<50	<250	<0.03	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	P11-20	06/24/09	SoundEarth	20	**630**[d]	150[x]	<250	**0.60**	3.3	4.1	**31**	**11**	<0.05	<0.05	<0.05
B22/MW03	B22-15	11/15/10	SoundEarth	15	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B22-17.5	11/15/10	SoundEarth	18	**200**	--	--	<0.02	0.20	0.53	4.9	--	--	--	--
	B22-20	11/15/10	SoundEarth	20	<2	--	--	<0.02	0.022	<0.02	0.098	--	--	--	--
B23/MW04	B23-15	11/15/10	SoundEarth	15	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B23-17.5	11/15/10	SoundEarth	17.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B23-20	11/15/10	SoundEarth	20	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
B24/MW05	B24-12.5	11/15/10	SoundEarth	12.5	2.3	--	--	0.025	0.086	<0.02	0.11	--	--	--	--
	B24-15	11/15/10	SoundEarth	15	3.9	--	--	<0.02	0.046	<0.02	0.15	--	--	--	--
	B24-17.5	11/15/10	SoundEarth	17.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
MTCA Method A Cleanup Level for Soil[5]					**30/100**[b]	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**	**5**	**0.1**	**0.005**	**NE**

SoundEarth Strategies

Table 2
Summary of Soil Analytical Results for Petroleum Hydrocarbons
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Sample Depth (feet bgs)	Analytical Results (mg/kg)										
					GRPH[1]	DRPH[2]	ORPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]	Naphthalene[3]	MTBE[3]	EDB[3]	EDC[3]
B25/MW06	B25-10	11/16/10	SoundEarth	10	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B25-12.5	11/16/10	SoundEarth	12.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B25-15	11/16/10	SoundEarth	15	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
B26/MW07	B26-12.5	11/16/10	SoundEarth	12.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B26-15	11/16/10	SoundEarth	15	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B26-17.5	11/16/10	SoundEarth	17.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
B27/MW08	B27-10	11/16/10	SoundEarth	10	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B27-12.5	11/16/10	SoundEarth	12.5	3.0	--	--	0.089	<0.02	0.053	<0.06	--	--	--	--
	B27-15	11/16/10	SoundEarth	15	520	--	--	<1	3.0	6.1	42	--	--	--	--
	B27-17.5	11/16/10	SoundEarth	17.5	<20	--	--	<0.2	0.95	<0.2	1.4	--	--	--	--
	B27-20	11/16/10	SoundEarth	20	5.0	--	--	0.053	0.39	0.073	0.63	--	--	--	--
	B27-22.5	11/16/10	SoundEarth	22.5	<20	--	--	<0.2	0.48	<0.2	0.84	--	--	--	--
	B27-25	11/16/10	SoundEarth	25	<2	--	--	<0.02	0.077	<0.02	0.13	--	--	--	--
	B27-27.5	11/16/10	SoundEarth	27.5	<2	--	--	0.028	0.11	<0.02	0.16	--	--	--	--
	B27-30	11/16/10	SoundEarth	30	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
B28/MW09	B28-12.5	12/06/10	SoundEarth	12.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B28-15	12/06/10	SoundEarth	15	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B28-17.5	12/06/10	SoundEarth	17.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
B29/MW10	B29-15	12/06/10	SoundEarth	15	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B29-17.5	12/06/10	SoundEarth	17.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B29-20	12/06/10	SoundEarth	20	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
B30/MW11	B30-15	12/06/10	SoundEarth	15	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B30-17.5	12/06/10	SoundEarth	17.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B30-20	12/06/10	SoundEarth	20	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
B31/RW08	B31-20	06/14/11	SoundEarth	20	6.2	<50	<250	0.094	0.59	0.17	0.82	0.11	<0.05	--	--
	B31-27.5	06/14/11	SoundEarth	27.5	3.8	--	--	0.083	0.45	0.066	0.43	--	--	--	--
	B31-30	06/14/11	SoundEarth	30	<2	--	--	0.026	0.20	0.045	0.22	--	--	--	--
B32/RW11	B32-15	06/14/11	SoundEarth	15	--	<50	<250	0.056	<0.05	<0.05	<0.2	<0.05	<0.05	--	--
	B32-20	06/14/11	SoundEarth	20	<2	--	--	0.048	<0.02	0.080	0.14	--	--	--	--
	B32-25	06/14/11	SoundEarth	25	<2	--	--	<0.02	<0.02	<0.02	0.073	<0.05	<0.05	--	--
B33/RW10	B33-17.5	06/14/11	SoundEarth	17.5	3,300	<50	<250	2.4	83	48	276	17	<0.05	--	--
	B33-22.5	06/14/11	SoundEarth	22.5	6.2	--	--	0.024	0.16	0.095	0.51	--	--	--	--
	B33-25	06/14/11	SoundEarth	25	<2	--	--	0.024	0.093	0.031	0.18	--	--	--	--
MTCA Method A Cleanup Level for Soil[5]					**30/100[b]**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**	**5**	**0.1**	**0.005**	**NE**

SoundEarth Strategies

Table 2
Summary of Soil Analytical Results for Petroleum Hydrocarbons
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Sample Depth (feet bgs)	Analytical Results (mg/kg)										
					GRPH[1]	DRPH[2]	ORPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]	Naphthalene[3]	MTBE[3]	EDB[3]	EDC[3]
B34/RW09	B34-05	06/15/11	SoundEarth	5	6.2	<50	<250	**0.038**	<0.05	<0.05	0.45	<0.05	<0.05	<0.05	<0.05
	B34-12.5	06/15/11	SoundEarth	12.5	14	--	--	**0.051**	<0.02	<0.02	0.075	--	--	--	--
	B34-15	06/15/11	SoundEarth	15	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
B35/MW13	B35-07.5	06/15/11	SoundEarth	7.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B35-12.5	06/15/11	SoundEarth	12.5	<2	--	--	**0.032**	<0.02	<0.02	<0.06	--	--	--	--
	B35-15	06/15/11	SoundEarth	15	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
B36/MW12	B36-12.5	06/15/11	SoundEarth	12.5	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--
	B36-15	06/15/11	SoundEarth	15	**66**	<50	<250	<0.03	<0.05	0.42	2.6	0.25	<0.05	<0.05	<0.05
	B36-25	06/15/11	SoundEarth	25	3.6	--	--	**0.071**	0.19	0.053	0.30	--	--	--	--
MTCA Method A Cleanup Level for Soil[5]					**30/100[b]**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**	**5**	**0.1**	**0.005**	**NE**

NOTES:

Red denotes concentration exceeds MTCA Method A cleanup level.

Samples from 2003 and 2006 analyzed by CCI Analytical Laboratories of Everett, Washington.

Samples from 2004 analyzed by North Creek Analytical of Bothell, Washington.

Samples from 2010/11 analyzed by Friedman & Bruya, Inc., of Seattle, Washington.

[1]Analyzed by Method NWTPH-HCID or NWTPH-Gx.

[2]Analyzed by Method NWTPH-HCID or NWTPH-Dx.

[3]Analyzed by U.S. Environmental Protection Agency Method 8021B or 8260C.

[4]Sample composited from three locations beneath the fuel-dispensing pump island.

[5]MTCA Method A Cleanup Levels, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

[a]Sample subsequently overexcavated.

[b]30 mg/kg when benzene is present and 100 mg/kg when benzene is not present.

Laboratory Notes:

[d]The sample was diluted. Detection limits may be raised due to dilution.

[x]The pattern of peaks is not indicative of diesel.

-- = not analyzed

< = not detected at a concentration exceeding the laboratory reporting limit

bgs = below ground surface

DRPH = diesel-range petroleum hydrocarbons

EDB = ethylene dibromide (1,2-dibromoethane)

EDC = ethylene dichloride (1,2-dichloroethane)

EPI = Environmental Partners, Inc.

GEI = GeoEngineers, Inc.

GRPH = gasoline-range petroleum hydrocarbons

mg/kg = milligrams per kilogram

MTBE = methyl tertiary-butyl ether

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbon

ORPH = oil-range petroleum hydrocarbons

SoundEarth = SoundEarth Strategies, Inc.

SoundEarth Strategies

Table 3
Summary of Soil Analytical Results for Metals
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Sample Depth (feet bgs)	Analytical Results (milligrams/kilogram)									
					Antimony[1]	Arsenic[1]	Cadmium[1]	Copper[1]	Lead[1]	Chromium[1]	Selenium[1]	Silver[1]	Barium[1]	Total Mercury[2]
UST Excavation	EX-4-13	12/02/03	GEI	13	--	--	--	--	<4.2	--	--	--	--	--
Stockpile	DSP-1	12/02/03	GEI	1	--	--	--	--	<4.7	--	--	--	--	--
B-1	B1@1.5	11/22/06	EPI	1.5	3.8	<5	<1	17	8.7	--	--	--	--	--
	B1@9.5	11/22/06	EPI	9.5	**50**	**200**	<1	1,300	**8,500**	--	--	--	--	--
	B1@13	11/22/06	EPI	13	**43**	**180**	2	1,500	**9,000**	--	--	--	--	--
B-2	B2@2.5	11/22/06	EPI	2.5	<3	6.9	<1	35	31	--	--	--	--	--
	B2@14	11/22/06	EPI	14	<3	<5	<1	14	21	--	--	--	--	--
B-3	B3@1.5	11/22/06	EPI	1.5	<3	<5	<1	29	150	--	--	--	--	--
	B3@15	11/22/06	EPI	15	<3	20	<1	41	110	--	--	--	--	--
B-4	B4@2	11/22/06	EPI	2	<3	<5	<1	22	33	--	--	--	--	--
	B4@16	11/22/06	EPI	16	<3	<5	<1	61	7.0	--	--	--	--	--
B-5	B5@2.5	11/22/06	EPI	2.5	<3	<5	<1	15	<5	--	--	--	--	--
	B5@6	11/22/06	EPI	6	<3	12	<1	22	55	--	--	--	--	--
	B5@12	11/22/06	EPI	12	<3	14	<1	15	11	--	--	--	--	--
B-6	B6@2.5	11/22/06	EPI	2.5	<3	<5	<1	17	<5	--	--	--	--	--
	B6@10	11/22/06	EPI	10	**43**	**310**	1.3	1,900	**11,000**	--	--	--	--	--
	B6@13	11/22/06	EPI	13	8.0	17	<1	120	180	--	--	--	--	--
B31	B31-20	06/15/11	SoundEarth	20	--	1.31	<1	--	1.69	8.56	<1	<1	30.6	<0.1
B32	B32-15	06/15/11	SoundEarth	15	--	19.6	2.31	--	86.3	33.0	<1	<1	98.2	<0.1
B33	B33-17.5	06/15/11	SoundEarth	17.5	--	10.9	<1	--	6.04	36.5	<1	<1	98.4	<0.1
B34	B34-05	06/16/11	SoundEarth	5	--	17.4	<1	--	11.6	14.9	<1	<1	55.9	<0.1
B36	B36-15	06/16/11	SoundEarth	15	--	5.73	<1	--	4.68	32.0	<1	<1	82.5	<0.1
MTCA Cleanup Levels for GW					**32[a]**	**20[b]**	**2[b]**	**3,000[a]**	**250[b]**	**2,000[b]**	**400[a]**	**400[a]**	**16,000[a]**	**2[b]**

NOTES:

Red denotes concentration exceeds MTCA Method A or B cleanup level.

Samples analyzed by CCI Analytical Laboratories of Everett, Washington and Friedman & Bruya, Inc. of Seattle, Washington.

[1]Analyzed by EPA Method 6010 or Method 200.8.

[2]Analyzed by EPA Method 1631E.

[a]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Non-carcinogen, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[b]MTCA Method A Cleanup Levels, Table 740-1 of Section 900 of Chapter 173-340 of the WAC, revised November 2007.

< = not detected at a concentration exceeding the laboratory reporting limit
bgs = below ground surface
CLARC = Cleanup Levels and Risk Calculations
EPA = U.S. Environmental Protection Agency
EPI = Environmental Partners, Inc.
GEI = GeoEngineers, Inc.
MTCA = Washington State Model Toxics Control Act
SoundEarth = SoundEarth Strategies, Inc.
UST = underground storage tank
WAC = Washington Administrative Code

Table 4
Summary of Soil Analytical Results for PCBs and cPAHs
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Sample Depth (feet bgs)	Analytical Results for PCBs[1]								Analytical Results for cPAHs (Toxicity Equivalency)[2]							Total TEQ Soil Concentration[1]
					Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total Aroclors[3]	Benzo(a) anthracene TEF 0.1	Chrysene TEF 0.01	Benzo(a)pyrene TEF 1	Benzo(b) fluoranthene TEF 0.1	Benzo(k) fluoranthene TEF 0.1	Indeno(1,2,3-cd)pyrene TEF 0.1	Dibenz(a,h) anthracene TEF 0.1	
B-2	B2@4.5	11/22/06	EPI	4.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.02	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02
B-5	B5@6	11/22/06	EPI	6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02
MTCA Cleanup Levels for Soil					**5.6[a]**	**NE**	**NE**	**NE**	**NE**	**1.6[a]**	**NE**	**1[b]**	**0.1[b]**							**0.1[b]**

NOTES:

Results reported in milligrams per kilogram.

Soil samples analyzed by U.S. Environmental Protection Agency Method 6010.

Red denotes concentration exceeds MTCA Method A or B cleanup level.

Samples from 2006 analyzed by CCI Analytical Laboratories of Everett, Washington.

[1]Analyzed by EPA Method 8082A.

[2]Analyzed by EPA Method 8270D. Analytical result for each cPAH compound is multiplied by the TEF and all seven cPAH values are added. When analytical results are reported as less than the LRL, half of the LRL is used for the calculation, as shown.

[a]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Non-carcinogen, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[b]MTCA Method A Cleanup Levels, Table 740-1 of Section 900 of Chapter 173-340 of the WAC, revised November 2007.

< = not detected at a concentration exceeding the laboratory reporting limit

bgs = below ground surface

CLARC = Cleanup Levels and Risk Calculations

EPA = U.S. Environmental Protection Agency

EPI = Environmental Partners, Inc.

LRL = laboratory reporting limit

MTCA = Washington State Model Toxics Control Act

NE = not established

cPAH = carcinogenic polycyclic aromatic hydrocarbon

PCB = polychlorinated biphenyl

TEF = toxicity equivalency factor

TEQ = toxicity equivalent

WAC = Washington Administrative Code

Table 5
Summary of Reconnaissance Groundwater Analytical Results for Petroleum Hydrocarbons
TOC Holdings Co. Facility No. 01-169
851 North Broadway
Everett, Washington

Sample Location[1]	Sample ID	Sample Date	Sampled By	Analytical Results (µg/L)				
				GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
B-6	B6 H2O	11/22/06	EPI	390	<1	<1	1	<3
MTCA Method A Cleanup Level for Groundwater[4]				**800/1000[a]**	**5**	**1,000**	**700**	**1,000**

Sample analyzed by CCI Analytical Laboratories of Everett, Washington.

[1]Reconnaissance groundwater sample collected from soil boring.

[2]Analyzed by Method NWTPH-HCID or NWTPH-Gx.

[3]Analyzed by U.S. Environmental Protection Agency Method 8021B or 8260C.

[4]MTCA Method A Cleanup Levels, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

[a]800 µg/L when benzene is present and 1,000 µg/L when benzene is not present.

< = not detected at a concentration exceeding the laboratory reporting limit

µg/L = micrograms per liter

bgs = below ground surface

EPI = Environmental Partners, Inc.

GRPH = gasoline-range petroleum hydrocarbons

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbon

APPENDIX A

Boring Logs

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/6/2004
Surface Conditions: Asphalt
Well Location N/S: 15' North from NW corner of building
Well Location E/W: 12' West from NW corner of building
Reviewed by: PJK/RKB
Date Completed: 10/6/2004

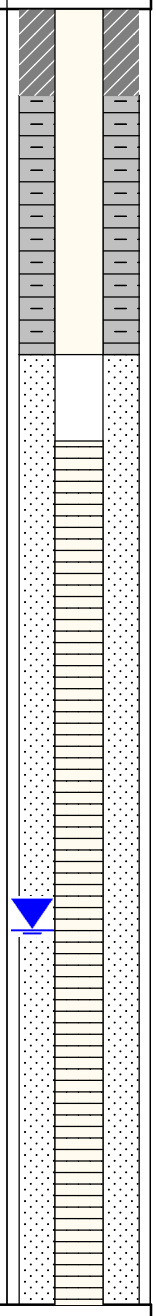
BORING LOG | B01 MW01

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 16 feet bgs

Water Depth After Completion 10.5 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**No samples collected to 16 feet below ground surface (bgs).**	
5									
10									
15									



Drilling Co./Driller: ESN/Don
Drilling Equipment: Combo Rig
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 20 feet bgs
Total Well Depth: 20 feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 5 to 20 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/6/2004
Surface Conditions: Asphalt
Well Location N/S: 15' North from NW corner of building
Well Location E/W: 12' West from NW corner of building
Reviewed by: PJK/RKB
Date Completed: 10/6/2004

BORING LOG | B01 MW01

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 16 feet bgs
Water Depth After Completion 10.5 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15						FILL		**Wet, sandy GRAVEL, gray, moderate hydrocarbon odor.**	
			100		B-1-17	SM		**Damp to moist, silty fine to medium SAND, trace gravel, weak hydrocarbon odor.**	
			100		B-1-18				
			100		B-1-19				
20					B-1-20			**Boring terminated at 20 feet bgs and completed as two-inch-diameter monitoring well MW01.**	
25									
30									

Drilling Co./Driller: ESN/Don
Drilling Equipment: Combo Rig
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 20 feet bgs
Total Well Depth: 20 feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 5 to 20 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/6/2004
Surface Conditions: Asphalt
Well Location N/S: 9' North from SW corner of building
Well Location E/W: 47' W from SW corner of building
Reviewed by: PJK/RKB
Date Completed: 10/6/2004

BORING LOG B02 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.**	
						FILL		**Moist, plastic, CLAY, grayish blue.**	
			100	3.7				**@1': Damp, silty fine to medium SAND, some fine to coarse gravel (gravel ends at 3.5 feet below ground surface), gray, terra cotta pipe fragments, no hydrocarbon odor.**	
5				1.8					
			100					**@7': Wet.**	
								@8': Damp.	
10			100	6					
						CL		**Damp to moist, plastic CLAY, bluish-gray to dark grayish-brown, no hydrocarbon odor.**	
						SM		**Damp, silty medium SAND, gray.**	
				6.3				**@13': Wet from 13 to 13.2 feet bgs.**	
			100			**CL-ML**		**Damp, silty CLAY, grayish-green to buff (at 16 feet bgs), mottled/oxidized from 14 to 16 feet bgs, no hydrocarbon odor.**	
15									

Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	29	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/6/2004
Surface Conditions: Asphalt
Well Location N/S: 9' North from SW corner of building
Well Location E/W: 47' W from SW corner of building
Reviewed by: PJK/RKB
Date Completed: 10/6/2004

BORING LOG | B02
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15						CL-ML		**Same as above, some sand, buff.**	
			100	0		SP		**Damp, gravelly medium SAND, fine gravel, gray, no hydrocarbon odor.**	
20						SC-SM		**Damp, silty clayey SAND, gray.**	
			100			SM		**Dry, silty fine SAND, trace gravel, buff, no hydrocarbon odor.**	
25			100						
30								**Boring terminated at 29 feet bgs. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.**	

Drilling Co./Driller: ESN/Don
Drilling Equipment: Direct Push
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 29 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/6/2004
Surface Conditions: Asphalt
Well Location N/S: 50' West of SW corner of building
Well Location E/W: 21' North of SW corner of building
Reviewed by: PJK/RKB
Date Completed: 10/6/2004

BORING LOG B03
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.**	
						FILL		**Damp, silty SAND, some fine to coarse gravel, gray.**	
					B-3-1				
					B-3-2				
			100	0					
					B-3-3			**@3': Weak hydrocarbon odor.**	
				6					
					B-3-4			**@4': No hydrocarbon odor.**	
				0					
5					B-3-5				
				0					
			100		B-3-6				
				25					
					B-3-7			**@7': Moderate hydrocarbon odor from 7 to 8 feet bgs.**	
				30	B-3-8				
				20					
				3					
10			100					**Damp, coarse, black slag, no hydrocarbon odor.**	
								Damp, fine sandy SILT, two-inch gravel seam at 12 feet bgs, grayish-blue to buff, no hydrocarbon odor.	
						CL-ML		**Silty CLAY, buff, no hydrocarbon odor.**	
			100						
15									

Drilling Co./Driller: ESN/Don
Drilling Equipment: Combo Rig
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 16 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/6/2004
Surface Conditions: Asphalt
Well Location N/S: 50' West of SW corner of building
Well Location E/W: 21' North of SW corner of building
Reviewed by: PJK/RKB
Date Completed: 10/6/2004

BORING LOG | B03
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15						CL-ML			
								Boring terminated at 16 feet bgs. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.	
20									
25									
30									

Drilling Co./Driller: ESN/Don
Drilling Equipment: Combo Rig
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 16 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	WHR
Date Started:	10/6/2004
Surface Conditions:	Asphalt
Well Location N/S:	29' West of SW corner of building
Well Location E/W:	14' North of SW corner of building
Reviewed by:	PJK/RKB
Date Completed:	10/6/2004

BORING LOG B04 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt underlain by gravel.**	
			100			**FILL**		**Damp, silty SAND, some gravel, buff to bluish-gray.**	
					B-4-4				
				3					
5					B-4-5			**Wet from 7 to 9 feet below ground surface (bgs).**	
				10					
			100		B-4-6				
				6					
					B-4-7			**@7': Wet.**	
				10					
								@9': Damp.	
						ML		**Moist, semi-plastic, sandy clayey SILT, some fine gravel, bluish-gray.**	
10			100						
								Boring terminated at 12 feet bgs. Backfilled with bentonite chips and finished flush to surface with asphalt plug.	
15									

						Notes/Comments:
Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	NE = not encountered
Drilling Equipment:	Combo Rig		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	12	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/6/2004
Surface Conditions: Asphalt
Well Location N/S: 13' West of B04
Well Location E/W: 1' North of B04
Reviewed by: PJK/RKB
Date Completed: 10/6/2004

BORING LOG | B05
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt with gravel subbase.**	
						FILL		**Damp, silty fine to medium SAND, bluish-gray, no hydrocarbon odor.**	
			100						
				3	B-5-4			**@3': Weak hydrocarbon odor.**	
			100					**Wet from 5 to 6.5 feet below ground surface (bgs).**	
				2.5	B-5-5				
5				0	B-5-6			**@5': Wet, weak hydrocarbon odor from 3 to 6 feet bgs, very faint hydrocarbon odor from 6 to 7 feet bgs.**	
				0	B-5-7			**@6': Very faint hydrocarbon odor.**	
								@6.5': Damp.	
				27				**@7': No hydrocarbon odor.** **Damp, clay with slag, dark gray, no hydrocarbon odor.**	
			100					**Damp, silty fine SAND, bluish-gray, no hydrocarbon odor.**	
10				8					
								Pot shard at 11 feet bgs. Terra cotta piping fragment. **Damp to moist, clayey silty SAND, trace gravel, gray to brown, no hydrocarbon odor.**	
			100					**Wet from 12.1 to 12.3 feet below ground surface(bgs).**	
				3.5					
15									

Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Combo Rig		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	16	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	WHR
Date Started:	10/6/2004
Surface Conditions:	Asphalt
Well Location N/S:	13' West of B04
Well Location E/W:	1' North of B04
Reviewed by:	PJK/RKB
Date Completed:	10/6/2004

BORING LOG B05 --

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15						FILL			
								Boring terminated at 16 feet bgs, and finished flush to surface with asphalt plug.	
20									
25									
30									

Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Combo Rig		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	16	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	WHR
Date Started:	10/6/2004
Surface Conditions:	Asphalt
Well Location N/S:	58' West of building
Well Location E/W:	24' North of SW corner
Reviewed by:	PJK/RKB
Date Completed:	10/6/2004

BORING LOG | B06

--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.**	
						FILL		**Damp to moist, silty gravelly SAND, gray.**	
			100						
				10	B-6-4				
			100						
				2.5					
5				0					
				1					
				0				**Wet, slag, black, very strong hydrocarbon odor.**	
			100						
				0					
				0					
10									
				800				**Strong sheer from 11.3 to 11.5 feet below ground surface (bgs).**	
				85	B-6-11.5			**Damp, silty SAND, some organics, brown, very faint hydrocarbon odor.**	
			100			**ML**		**Damp, clayey SILT, gray and orange mottling, faint to moderate hydrocarbon odor.**	
				300	B-6-14				
15									

Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Combo Rig		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	16	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	WHR
Date Started:	10/6/2004
Surface Conditions:	Asphalt
Well Location N/S:	58' West of building
Well Location E/W:	24' North of SW corner
Reviewed by:	PJK/RKB
Date Completed:	10/6/2004

BORING LOG B06 --

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				8					
								Boring terminated at 16 feet bgs. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.	
20									
25									
30									

Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Combo Rig		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	16	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	WHR
Date Started:	10/7/2004
Surface Conditions:	Asphalt
Well Location N/S:	26' North of NW corner of building
Well Location E/W:	33' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	10/7/2004

BORING LOG | B07 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt with gravel subbase.**	
			100			FILL		**Damp, silty fine to medium SAND, some fine to coarse gravel, gray, no hydrocarbon odor.**	
			100	6					
5				0				**Moist to wet, silty, gravelly, fine to medium SAND, some lenses of organic plant material, gray, very faint hydrocarbon odor.**	
			100						
10						ML		**Wet, clayey SILT, brown, very faint hydrocarbon odor.**	
			100	0		CL		**Damp, silty CLAY, grayish-green, some mottling, no hydrocarbon odor.**	
15						SM		**Damp to moist, silty, fine SAND, gray, no hydrocarbon odor.**	

Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Combo Rig		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/7/2004
Surface Conditions: Asphalt
Well Location N/S: 26' North of NW corner of building
Well Location E/W: 33' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 10/7/2004

BORING LOG | B07 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling: NE feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				110					
			100	27	B-7-16	SP		**Moist, fine to medium SAND, some fine to coarse gravel, trace silt, buff.**	
20				20				**Boring terminated at 20 feet bgs. Backfilled with bentonite chips, and capped flush to surface with asphalt plug.**	
25									
30									

Drilling Co./Driller: ESN/Don
Drilling Equipment: Combo Rig
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 20 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	WHR
Date Started:	10/7/2004
Surface Conditions:	Asphalt
Well Location N/S:	14' South of NW corner of building
Well Location E/W:	57' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	10/7/2004

BORING LOG B08 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt with gravel subbase.**	
			85			**FILL**		**Damp, fine SAND, trace fine gravel and silt, tan with some mottling, no hydrocarbon odor.**	
5			75					**Dry, slag, black, no hydrocarbon odor.**	
				0					
10			100					**Wet from 10 to 10.2 feet below ground surface (bgs).** **Damp, silty SAND, gray, no hydrocarbon odor.**	
						ML		**Damp, clayey SILT, gray with some mottling.**	
								Boring terminated at 12 feet bgs. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.	
15									

Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Combo Rig		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	12	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	WHR
Date Started:	10/7/2004
Surface Conditions:	Asphalt
Well Location N/S:	41' North of SW corner of building
Well Location E/W:	31' West of SW corner of building
Reviewed by:	PJK/RKB
Date Completed:	10/7/2004

BORING LOG | B09 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt with gravel subbase.**	
			100			**FILL**		**Dry, gravelly SAND, no hydrocarbon odor.**	
5			100						
10			100					**Moist.**	
				18	B-9-12	**CL**		**Damp, silty CLAY, gray to grayish-green with some mottling, very faint hydrocarbon odor.**	
								Boring terminated at 12 feet bgs. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.	
15									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Combo		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	12	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/7/2004
Surface Conditions: Asphalt
Well Location N/S: 60' West of SW corner of building
Well Location E/W: 7' North of SW corner of building
Reviewed by: PJK/RKB
Date Completed: 10/7/2004

BORING LOG | B10 MW02

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt with gravel subbase.**	
			100			**FILL**		**Damp to moist, silty fine SAND, grayish-green, no hydrocarbon odor.**	
5			100						
10			100					**Damp, angular slag, black, no hydrocarbon odor.**	
			100			**CL-ML**		**Wet from 12 to 12.2 feet below ground surface (bgs), silty CLAY, gray with some mottling, no hydrocarbon odor.**	
15									

Drilling Co./Driller: ESN/Don
Drilling Equipment: Combo Rig
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 30 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 15 to 30 feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: Concrete
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/7/2004
Surface Conditions: Asphalt
Well Location N/S: 60' West of SW corner of building
Well Location E/W: 7' North of SW corner of building
Reviewed by: PJK/RKB
Date Completed: 10/7/2004

BORING LOG | B10 MW02

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15								**Some fine SAND.**	
						GP		**(Augered from 16 to 30 feet bgs, driller reports gravel at 20 feet bgs, harder drilling to 30 feet bgs)**	
20				0					
			0						
25									
30								**Boring terminated at 30 feet bgs and completed as two-inch-diameter monitoring well MW02.**	

Drilling Co./Driller: ESN/Don
Drilling Equipment: Combo Rig
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 30 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 15 to 30 feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: Concrete
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: WHR
Date Started: 10/7/2004
Surface Conditions: Concrete
Well Location N/S: 12' West of B06
Well Location E/W: 8.8' South of B06
Reviewed by: PJK/RKB
Date Completed: 10/7/2004

BORING LOG | B11
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Concrete.**	
						FILL		**Damp, silty fine SAND, some fine to coarse gravel, tan, no hydrocarbon odor.**	
			30						
5								**Damp, slightly plastic, fine sandy SILT, some clay, no hydrocarbon odor.**	
			100					**@6: Wet.**	
								@6.8: Damp.	
								Dry, slag, black, no hydrocarbon odor.	
10			100						
								@11.5: Wet.	
				25	B-11-12	**SP-SM**		**Wet, clayey silty SAND, gray, moderate hydrocarbon odor.**	
			100	0				**@12.5: Damp, no hydrocarbon odor.**	
								No recovery.	
15			0	0					

Drilling Co./Driller: ESN/Don
Drilling Equipment: Combo Rig
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 16 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	WHR
Date Started:	10/7/2004
Surface Conditions:	Concrete
Well Location N/S:	12' West of B06
Well Location E/W:	8.8' South of B06
Reviewed by:	PJK/RKB
Date Completed:	10/7/2004

BORING LOG B11
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15									
								Boring terminated at 16 feet bgs. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.	
20									
25									
30									

Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Combo Rig		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	16	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	WHR
Date Started:	10/7/2004
Surface Conditions:	Concrete
Well Location N/S:	23' South of B06
Well Location E/W:	12' West of B06
Reviewed by:	PJK/RKB
Date Completed:	10/7/2004

BORING LOG | B12

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Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Concrete.**	
			80			**FILL**		**Damp, silty fine SAND, some fine to coarse gravel, tan, no hydrocarbon odor.**	
5			100					**Damp, slightly plastic, fine sandy SILT, some clay, gray, no hydrocarbon odor.** **@6: Wet.** **@6.8: Damp.** **Dry, slag, black, no hydrocarbon odor.**	
10			75	80	B-12-12			**@11.5: Wet, moderate hydrocarbon odor.** **Damp, clayey silty SAND, gray, no hydrocarbon odor.**	
			50					**No recovery.**	
15									

Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Combo Rig		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	16	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	WHR
Date Started:	10/7/2004
Surface Conditions:	Concrete
Well Location N/S:	23' South of B06
Well Location E/W:	12' West of B06
Reviewed by:	PJK/RKB
Date Completed:	10/7/2004

BORING LOG B12
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15									
								Boring terminated at 16 feet below ground surface. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.	
20									
25									
30									

Drilling Co./Driller:	ESN/Don		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Combo Rig		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	16	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: TJL
Date Started: 3/20/2006
Surface Conditions: Asphalt
Well Location N/S: 14.3' North of NW corner of building
Well Location E/W: 19' West of NW corner of building
Reviewed by: RJK/RKB
Date Completed: 3/20/2006

BORING LOG | B13 RW01

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 11.5 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0						Asphalt		**Asphalt.**	
						FILL		**Damp, very dense, silty SAND, some gravel, brown, no hydrocarbon odor.**	
		50/6	33	0.0	B-13-02				
						FILL		**Same as above.**	
		50/6	33	0.0	B-13-3.5	FILL		**Same as above, medium to coarse SAND, with subangular to subrounded gravel.**	
5		50/6	33	0.0	B-13-5				
		50/6	33	0.0	B-13-6.5	FILL		**Same as above.**	
		50/6	33	0.0	B-13-8	FILL		**Same as above.**	
		50/6	33	12	B-13-9.5	FILL		**Same as above.**	
10		10 11 16	100	275	B-13-11	FILL		**Wet, medium dense SAND, weak hydrocarbon odor.**	
		50/6	33	19.1	B-13-13	FILL		**Same as above.**	
		50/6	33	121					
15					B-13-15				

Drilling Co./Driller: Cascade
Drilling Equipment: Hollow Stem Auger
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 19 feet bgs
Total Well Depth: 18.5 feet bgs
State Well ID No.: --

Well/Auger Diameter: 4 inches
Well Screened Interval: 8 to 18 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 Samd
Surface Seal: Concrete
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	TJL
Date Started:	3/20/2006
Surface Conditions:	Asphalt
Well Location N/S:	14.3' North of NW corner of building
Well Location E/W:	19' West of NW corner of building
Reviewed by:	RJK/RKB
Date Completed:	3/20/2006

BORING LOG | B13 RW01

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 11.5 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15									
		50/6	33			FILL		**Wet, very dense, silty SAND to sandy SILT, some gravel, dark gray, weak hydrocarbon odor.**	
		13	100	19.0		ML		**Wet, medium dense, sandy SILT, gray, weak hydrocarbon odor**	
		15							
		15							
		20	100	12.5	B-13-19				
20								**Boring terminated at 19 feet below ground surface (bgs) and completed as four-inch-diameter recovery well RW01.**	
25									
30									

Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	4	inches	**Notes/Comments:**
Drilling Equipment:	Hollow Stem Auger		**Well Screened Interval:**	8 to 18	feet bgs	
Sampler Type:	--		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	#2/12 Samd		
Total Boring Depth:	19	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	18.5	feet bgs	**Annular Seal:**	Bentonite Chips		
State Well ID No.:	--		**Monument Type:**	Flush Mount		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	TJL
Date Started:	3/20/2006
Surface Conditions:	Asphalt
Well Location N/S:	14.5' North of SW corner of building
Well Location E/W:	23.5' West of SW corner of building
Reviewed by:	RJK/RKB
Date Completed:	3/20/206

BORING LOG | B14 RW07

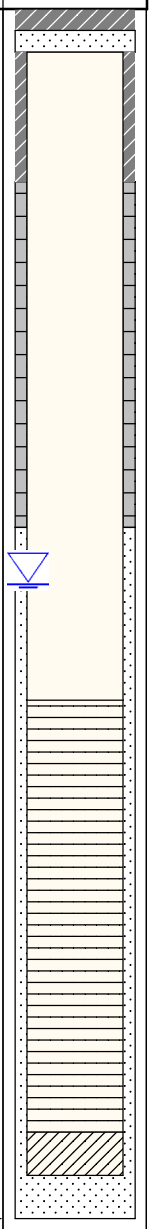
Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 6.5 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0				0.0		FILL		**Asphalt -3 inches. Underlain by damp, gravelly, silty SAND, black, no hydrocarbon odor.**
				0.0				**Logged from soil cuttings: Damp, sandy SILT, with gravel and organics, olive gray, no hydrocarbon odor.**
								Damp, SILT, some organics, olive gray, no hydrocarbon odor.
5			100	0.0	B-14-05	ML		**Damp to moist, sandy SILT, dark gray, no hydrocarbon odor.**
								Logged from soil cuttings: Wet, SAND, tan, no hydrocarbon odor.
			100	0.0	B-14-7.5	ML		**Damp to moist, sandy SILT, dark gray, no hydrocarbon odor**
10								
			100	0.0	B-14-12	ML		**Damp, sandy SILT, dark gray with green, no hydrocarbon odor.**
15								**Boring terminated at 14 feet below ground surface (bgs) and completed as four-inch-diameter recovery well RW07.**

Well Construction Detail



Drilling Co./Driller:	Cascade		
Drilling Equipment:	Air Knife		
Sampler Type:	--		
Hammer Type/Weight:	--	lbs	
Total Boring Depth:	14	feet bgs	
Total Well Depth:	13.5	feet bgs	
State Well ID No.:	--		

Well/Auger Diameter:	4	inches
Well Screened Interval:	8 to 13	feet bgs
Screen Slot Size:	0.010	inches
Filter Pack Used:	#2 2/12 Sand	
Surface Seal:	Cement	
Annular Seal:	Bentonite Chips	
Monument Type:	Flush Mount	

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: TJL
Date Started: 3/20/2006
Surface Conditions: Asphalt
Well Location N/S: 21' North of NW corner of building
Well Location E/W: 44' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 3/20/2006

BORING LOG | B15 RW02

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 7.5 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0						Asphalt		**Asphalt.**	
						FILL		**Damp, silty gravelly SAND, brown, no hydrocarbon odor.**	
		13 15 17	33	0.0		FILL		**Damp, dense, gravelly, silty SAND, brown, no hydrocarbon odor.**	
5		7 8 18	33	0.0	B-15-05	FILL		**Moist, medium dense, silty SAND, tan, no hydrocarbon odor.**	
		7 8 12	33	0.0	B-15-09	FILL		**Wet, medium dense, silty SAND, some gravel, brown, no hydrocarbon odor.**	
10		50/6	33	0.0	B-15-10	FILL		**Same as above, moist, very dense, weak hydrocarbon odor.**	
		50/6		0.0		ML		**Damp, hard, sandy SILT, olive, no hydrocarbon odor.**	
		50/6	33	0.0		ML		**Same as above.**	
15		50/4	33	0.0		ML		**Dry to damp, hard, sandy SILT, greenish tan, no hydrocarbon odor.**	

Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	4	inches
Drilling Equipment:	Hollow Stem Auger		**Well Screened Interval:**	8 to 18	feet bgs
Sampler Type:	-		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	#2/12 Sand	
Total Boring Depth:	19	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	18.5	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	TJL
Date Started:	3/20/2006
Surface Conditions:	Asphalt
Well Location N/S:	21' North of NW corner of building
Well Location E/W:	44' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	3/20/2006

BORING LOG | B15 RW02

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 7.5 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	X	50/6	33	210	B-15-16.5	SM		**Damp, very dense, silty SAND, tan, moderate hydrocarbon odor.**	
	X	50/6	33	181		SM		**Same as above.**	
	X	50/6	33	181		SM		**Same as above.**	
20								**Boring terminated at 19 feet below ground surface (bgs) and completed as four-inch-diameter recovery well RW02.**	
25									
30									

Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	4	inches
Drilling Equipment:	Hollow Stem Auger		**Well Screened Interval:**	8 to 18	feet bgs
Sampler Type:	-		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	#2/12 Sand	
Total Boring Depth:	19	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	18.5	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: TJL
Date Started: 3/20/2006
Surface Conditions: Asphalt
Well Location N/S: 2' South of NW corner of building
Well Location E/W: 32' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 3/20/2006

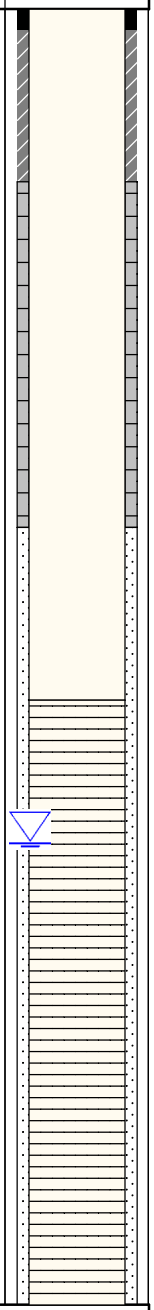
BORING LOG | B16 RW03

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 9.5 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0		10 12 10	100	0.0		FILL		**Asphalt** **Damp, medium dense, silty SAND, some gravel, tan, no hydrocarbon odor.**
		50/6	33	0.0		FILL		**Same as above, very dense.**
		50/6	33	0.0		FILL		**Same as above.**
5		50/6	33	0.0	B-16-05	FILL		**Same as above.**
		50/6	33	0.0		FILL		**Same as above.**
		50/6	33	0.0		FILL		**Same as above.**
		50/6	33	0.0	B-16-10	FILL		**Wet, very dense, silty SAND, some rounded gravel, tan, no hydrocarbon odor.**
10		50/6	33	0.0		FILL		**Same as above.**
		50/6	33	0.0		FILL		**Same as above.**
		50/6 12	50	0.0		FILL		**Same as above.**
15								

Well Construction Detail



Drilling Co./Driller:	Cascade		
Drilling Equipment:	Hollow Setm Auger		
Sampler Type:	--		
Hammer Type/Weight:	--	lbs	
Total Boring Depth:	16	feet bgs	
Total Well Depth:	15.5	feet bgs	
State Well ID No.:	--		

Well/Auger Diameter:	4	inches
Well Screened Interval:	8 to 15	feet bgs
Screen Slot Size:	0.010	inches
Filter Pack Used:	#2/12 Sand	
Surface Seal:	Cement	
Annular Seal:	Bentonite Chip	
Monument Type:	Flush Mount	

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: TJL
Date Started: 3/20/2006
Surface Conditions: Asphalt
Well Location N/S: 2' South of NW corner of building
Well Location E/W: 32' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 3/20/2006

BORING LOG | B16 RW03

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 9.5 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		12 50/6	50	0.0		ML		**Damp, hard, SILT, greenish gray, no hydrocarbon odor.**	
								Boring terminated at 16 feet below ground surface (bgs) and completed as four-inch-diameter recovery well RW03.	
20									
25									
30									

Drilling Co./Driller: Cascade
Drilling Equipment: Hollow Setm Auger
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 16 feet bgs
Total Well Depth: 15.5 feet bgs
State Well ID No.: --

Well/Auger Diameter: 4 inches
Well Screened Interval: 8 to 15 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite Chip
Monument Type: Flush Mount

Notes/Comments:

SoundEarth Strategies

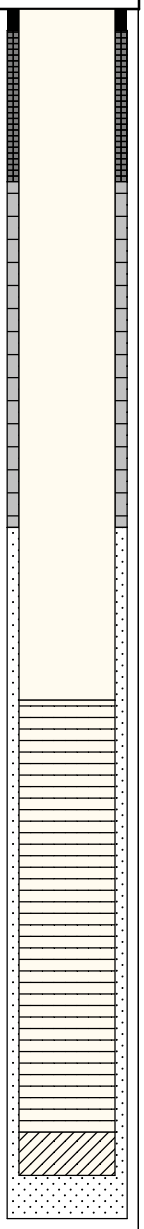
Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: TJL
Date Started: 3/20/2006
Surface Conditions: Asphalt
Well Location N/S: 17.5' North of SW corner of building
Well Location E/W: 54.75' West of SW corner of building
Reviewed by: PJK/RKB
Date Completed: 3/21/2006

BORING LOG | B17 RW06

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling: NE feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0						FILL		**Asphalt, underlain by dry, silty SAND, tan, no hydrocarbon odor.**	
								Logged from soil cuttings: Damp, SILT, greenish brown, no hydrocarbon odor.	
				0.0	B-17-2.5	FILL		**Damp, sandy SILT to silty SAND, greenish gray/brown, no hydrocarbon odor.**	
5				800	B-17-5	FILL		**Damp, silty SAND, some gravel, greenish-gray/brown, moderate hydrocarbon odor.**	
				0.0				**Logged from soil cuttings: Damp, sandy SILT to silty SAND, some gravel, greenish-gray/brown, moderate hydrocarbon odor.**	
				0.0				**Dry, GRAVEL, possibly slag, black, no hydrocarbon odor.**	
				0.0					
10				0.0				**Damp, SILT, some sand and gravel, greenish-gray/rust-brown, no hydrocarbon odor.**	
								Damp, SILT, some sand, greenish gray, no hydrocarbon odor.	
				0.0					
15								**Boring terminated at 14 feet below ground surface (bgs) and completed as four-inch-diameter recovery well RW06.**	



Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	4	inches	**Notes/Comments:**
Drilling Equipment:	Air Knife		**Well Screened Interval:**	8 to 13	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	#2/12 Sand		
Total Boring Depth:	14	feet bgs	**Surface Seal:**	Cement		
Total Well Depth:	13.5	feet bgs	**Annular Seal:**	Bentonite Chips		
State Well ID No.:	--		**Monument Type:**	Flush Mount		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	TJL
Date Started:	3/21/2006
Surface Conditions:	Asphalt
Well Location N/S:	35.8' North of SW corner of building
Well Location E/W:	59.5' West of SW corner of building
Reviewed by:	PJK/RKB
Date Completed:	3/21/2006

BORING LOG | B18 RW05

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 11 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0								
		13 13 15		0.0		FILL		**Asphalt, with gravel subbase. Damp, very stiff, sandy SILT, some gravel, greenish-gray, no hydrocarbon odor.**
		10 9 6						**Stiff.**
		14 12 10						**Very stiff.**
5		10 11 12						**Moist.**
		22 50/6		0.0		FILL		**Same as above, hard.**
		50/6				FILL		**Dry, very dense, GRAVEL, black, no hydrocarbon odor.**
10		50/6		830	B-19-10	OL		**Damp, hard, organic SILT, black, no hydrocarbon odor**
		50/6				OL		**Same as above, wet.**
		50/6				OL		**Same as above.**
15		50/6				OL		**Same as above, damp.**

Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	4	inches
Drilling Equipment:	Hollow Stem Auger		**Well Screened Interval:**	7 to 17	feet bgs
Sampler Type:	--		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	#2/12 Sand	
Total Boring Depth:	18	feet bgs	**Surface Seal:**	Cement	
Total Well Depth:	17.5	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

Notes

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: TJL
Date Started: 3/21/2006
Surface Conditions: Asphalt
Well Location N/S: 35.8' North of SW corner of building
Well Location E/W: 59.5' West of SW corner of building
Reviewed by: PJK/RKB
Date Completed: 3/21/2006

BORING LOG | B18 RW05

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 11 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		50/6 50/4		0.0	B-19-15.5	SM		**Damp, very dense, silty SAND, some gravel, green, no hydrocarbon odor**	
		50/6		0.0		SM		**Same as above.**	
20								**Boring terminated at 18 feet below ground surface (bgs) and completed as four-inch-diameter recovery well RW05.**	
25									
30									

Drilling Co./Driller: Cascade
Drilling Equipment: Hollow Stem Auger
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 18 feet bgs
Total Well Depth: 17.5 feet bgs
State Well ID No.: --

Well/Auger Diameter: 4 inches
Well Screened Interval: 7 to 17 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:
Notes

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	TJL
Date Started:	3/21/2006
Surface Conditions:	Asphalt
Well Location N/S:	14.5' South of NW corner of building
Well Location E/W:	49.5' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	3/21/2006

BORING LOG | B19 RW04

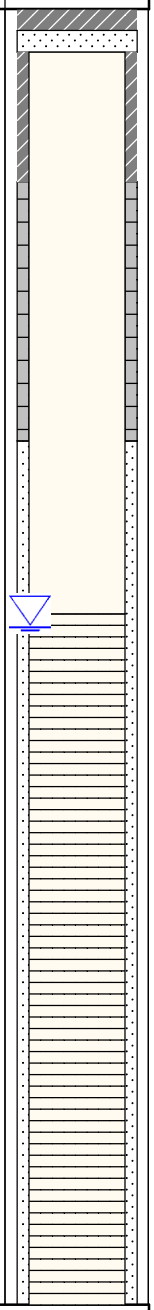
Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 7 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0								**Asphalt.**
		10 10 10				**FILL**		**Damp, medium dense, silty gravelly SAND, tan, no hydrocarbon odor.**
		12 19 16		0.0				**Dense.**
5		12 18 17						
		18 20 30		0.0				**Moist to wet, very dense.**
		50/6						**Moist.**
		50/6				**OL**		**Damp, hard, organic SILT, brownish black, very faint hydrocarbon odor.**
10		50/6 50/6		830	B-19-10	**OL**		**Same as above, moist, moderate hydrocarbon odor.**
		50/6				**OL**		**Same as above, no hydrocarbon odor.**
		50/6				**OL**		**Same as above, very faint hydrocarbon odor.**
15								

Well Construction Detail



Drilling Co./Driller:	Cascade		
Drilling Equipment:	Hollow Stem Auger		
Sampler Type:	--		
Hammer Type/Weight:	--	lbs	
Total Boring Depth:	18	feet bgs	
Total Well Depth:	17.5	feet bgs	
State Well ID No.:	--		

Well/Auger Diameter:	4	inches
Well Screened Interval:	7 to 17	feet bgs
Screen Slot Size:	0.010	inches
Filter Pack Used:	#2/12 Sand	
Surface Seal:	Concrete	
Annular Seal:	Bentonite Chips	
Monument Type:	Flush Mount	

Notes/Comments:

Notes

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: TJL
Date Started: 3/21/2006
Surface Conditions: Asphalt
Well Location N/S: 14.5' South of NW corner of building
Well Location E/W: 49.5' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 3/21/2006

BORING LOG | B19 RW04

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 7 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		50/6				ML		**Damp to moist, hard, sandy SILT, green, very faint hydrocarbon odor.**	
		50/6		0.0		SM		**Damp, very dense, silty SAND, green, no hydrocarbon odor.**	
		50/6				SM		**Same as above.**	
								Boring terminated at 18 feet below ground surface (bgs) and completed as four-inch-diameter recovery well RW04.	
20									
25									
30									

Drilling Co./Driller: Cascade
Drilling Equipment: Hollow Stem Auger
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 18 feet bgs
Total Well Depth: 17.5 feet bgs
State Well ID No.: --

Well/Auger Diameter: 4 inches
Well Screened Interval: 7 to 17 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:
Notes

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	TJL
Date Started:	3/21/2006
Surface Conditions:	Asphalt
Well Location N/S:	22.9' North of SW corner of building
Well Location E/W:	46' West of SW corner of building
Reviewed by:	PJK/RKB
Date Completed:	3/21/2006

BORING LOG | B20 OW02

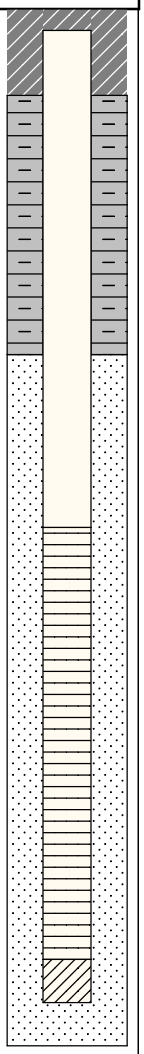
Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0				0.0				**Asphalt.**
								Logged from soil cuttings: Damp, silty gravelly SAND, black, no hydrocarbon odor.
								Logged from soil cuttings: Same as above, bluish gray.
5		7 6 12	100	24.3		FILL		**Damp, medium dense, silty gravelly SAND, bluish-gray, very faint hydrocarbon odor.**
10				0.0		FILL		**Damp to moist, silty gravelly SAND, bluish gray, no hydrocarbon odor.**
								Boring terminated at 12 feet below ground surface (bgs) and completed as two-inch-diameter observation well OW02.
15								

Well Construction Detail



Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	2	inches
Drilling Equipment:	Hollow Stem Auger		**Well Screened Interval:**	6 to 11	feet bgs
Sampler Type:	--		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	#2/12 Sand	
Total Boring Depth:	12	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	12	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: TJL
Date Started: 3/21/2006
Surface Conditions: Asphalt
Well Location N/S: 37' North of SW corner of building
Well Location E/W: 36.5' West of SW corner of building
Reviewed by: PJK/RKB
Date Completed: 3/21/2006

BORING LOG | B21 OW01

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling: NE feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt**	
								Damp, silty, gravelly SAND, tan, no hydrocarbon odor. (Soil cuttings)	
5		12		0.0		FILL		**Damp, medium dense, silty, gravelly, SAND, tannish brown, no hydrocarbon odor.**	
		12		0.0					
		14							
								Damp, sandy SILT, bluish gray, no hydrocarbon odor. (Soil cuttings)	
								Same as above, moist. (Soil cuttings)	
								Same as above, damp. (Soil cuttings)	
10		17		0.0		OL		**Damp, hard, organic SILT, green with black, no hydrocarbon odor.**	
		50						**Same as above (Soil cuttings)**	
								Boring terminated at 12 feet below ground surface (bgs) and completed as two-inch-diameter observation well OW01.	
15									

Drilling Co./Driller: Cascade
Drilling Equipment: Hollow Stem Auger
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 12 feet bgs
Total Well Depth: 12 feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 6 to 11 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: CCC
Date Started: 11/15/2010
Surface Conditions: Concrete
Well Location N/S: 44.6' S of NW corner of building
Well Location E/W: 79.1' W of NW corner of building
Reviewed by: JAC
Date Completed: 11/15/2010

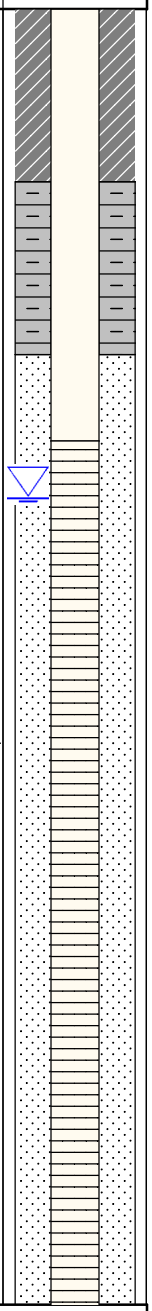
BORING LOG | B22 MW03

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 5.5 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0								**Concrete.**
								Soil Cuttings: Silty gravelly SAND.
5		19 20 21	90	0.0		FILL		**Moist, black clinker SLAG, with silty sand and gravel, no hydrocarbon odor (Fill).**
10		7 7 8	100	0.0		ML		**Moist, stiff, SILT, some clay, trace sand and gravel, possible organics, gray with brown oxidation, no hydrocarbon odor (90-5-5).**
		8 10 10	100	0.0	B22-12.5	ML		**Same as above, very stiff, no clay, no hydrocarbon odor.**
15								

Well Construction Detail



Drilling Co./Driller:	Cascade/D. Gose		**Well/Auger Diameter:**	2	inches
Drilling Equipment:	Hollow Stem Auger		**Well Screened Interval:**	5 to 25	feet bgs
Sampler Type:	D & M		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Cement	
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: CCC
Date Started: 11/15/2010
Surface Conditions: Concrete
Well Location N/S: 44.6' S of NW corner of building
Well Location E/W: 79.1' W of NW corner of building
Reviewed by: JAC
Date Completed: 11/15/2010

BORING LOG | B22 MW03

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 5.5 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		8 10 10	100	0.0	B22-15	ML		**Same as above, increasing sand and gravel content, no hydrocarbon odor.**	
		50/6	100	329	B22-17.5	SM		**Damp, very dense, silty, fine SAND, some gravel, moderate hydrocarbon odor.**	
20		50/6	100	0.0	B22-20	SM		**Same as above, gray, hydrocarbon odor.**	
		50/6	100	0.0	B22-22.5	SM		**Same as above, rounded to subrounded gravel, faint hydrocarbon odor.**	
25		50/6	80	0.0	B22-25	SM		**Same as above, no hydrocarbon odor.**	
								Boring terminated at 25.5 feet bgs and completed as well MW03 as shown in well construction detail.	
30									

Drilling Co./Driller: Cascade/D. Gose
Drilling Equipment: Hollow Stem Auger
Sampler Type: D & M
Hammer Type/Weight: 300 lbs
Total Boring Depth: 25.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 5 to 25 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	CCC
Date Started:	11/15/2010
Surface Conditions:	Concrete
Well Location N/S:	11' N of NW corner of building
Well Location E/W:	79.1' W of NW corner of building
Reviewed by:	JAC
Date Completed:	11/15/2010

BORING LOG | B23 MW04

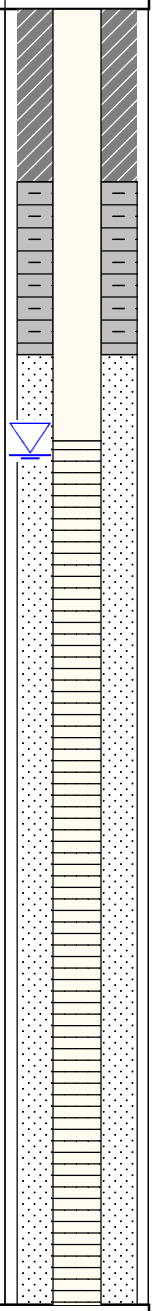
Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 5 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0								**Concrete (10 inches).**
5		5 6 7	100	0.0		**FILL**		**Black SLAG, some silty fine sand, no hydrocarbon odor.**
10		7 8 10	100	0.0		**ML**		**Moist, stiff, SILT, some clay, brown with gray, no hydrocarbon odor (100-0-0).**
		10 15 17	100	0.0	B23-12.5	**SM**		**Damp, hard, fine sandy SILT to silty fine SAND, trace gravel at base, no hydrocarbon odor (60-40-0).**
15								

Well Construction Detail



Drilling Co./Driller:	Cascade/D. Gose		**Well/Auger Diameter:**	2	inches	**Notes/Comments:**
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 25	feet bgs	
Sampler Type:	D & M		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Sand		
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Cement		
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite Chips		
State Well ID No.:	--		**Monument Type:**	Flush Mount		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: CCC
Date Started: 11/15/2010
Surface Conditions: Concrete
Well Location N/S: 11' N of NW corner of building
Well Location E/W: 79.1' W of NW corner of building
Reviewed by: JAC
Date Completed: 11/15/2010

BORING LOG | B23 MW04

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 5 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		50/6	100	0.0	B23-15	SM		**Damp, very dense, silty fine SAND, some gravel, gray, no hydrocarbon odor (20-70-10).**	
		50/6	100	0.0	B23-17.5	SM		**Same as above.**	
20		50/6	100	0.0	B23-20	SM		**Same as above.**	
		50/6	100	0.0	B23-22.5	SM		**Same as above.**	
25		50/6	100	0.0	B23-25	SM		**Same as above.**	
								Boring terminated at 25.5 feet bgs and completed as well MW04 as shown in well construction detail.	
30									

Drilling Co./Driller: Cascade/D. Gose
Drilling Equipment: HSA
Sampler Type: D & M
Hammer Type/Weight: 300 lbs
Total Boring Depth: 25.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 5 to 25 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	CCC
Date Started:	11/15/2010
Surface Conditions:	Soil/Gravel
Well Location N/S:	14.7' N of NW corner of building
Well Location E/W:	3.6' W of NW corner of building
Reviewed by:	JAC
Date Completed:	11/15/2010

BORING LOG | B24 MW05

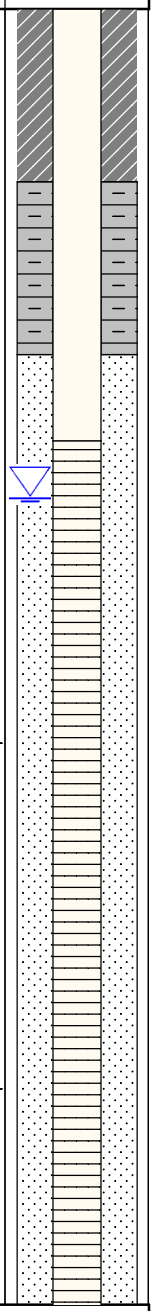
Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 5.5 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0								**Soil and gravel.** **Soil Cuttings: Moist, silty gravelly SAND, brown, no hydrocarbon odor.**
5		6 7 7	100	0.0		SP-SM		**Wet to damp, medium dense, silty gravelly fine SAND, wood fragments in lower 4 inches, no hydrocarbon odor (20-55-25) (Fill).**
10		3 6 10	100	0.0		SM-ML		**Damp, medium dense, silty SAND to stiff, sandy SILT, some gravel, brown with gray, no hydrocarbon odor (40-45-15).**
		50/6	100	4.3	B24-13	SM		**Damp, very dense, silty fine SAND, some gravel, faint hydrocarbon odor (20-70-10).**
15								

Well Construction Detail



Drilling Co./Driller:	Cascade/D. Gose		**Well/Auger Diameter:**	2	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 25	feet bgs
Sampler Type:	D & M		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Cement	
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: CCC
Date Started: 11/15/2010
Surface Conditions: Soil/Gravel
Well Location N/S: 14.7' N of NW corner of building
Well Location E/W: 3.6' W of NW corner of building
Reviewed by: JAC
Date Completed: 11/15/2010

BORING LOG | B24 MW05

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 5.5 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	X	50/6	100	0.0	B24-15	SM		**Damp, very dense, silty fine SAND, some gravel, gray, faint hydrocarbon odor (20-70-10).**	
	X	50/6	100	0.0	B24-17.5	SM		**Damp, very dense, silty fine SAND, some gravel, gray, very faint hydrocarbon odor (20-70-10).**	
20	X	50/6	100	0.0	B24-20	SM		**Damp, very dense, silty fine SAND, some gravel, gray, no hydrocarbon odor (20-70-10).**	
	X	50/6	100	0.0	B24-22.5	SM		**Damp, very dense, silty fine SAND, some gravel, no hydrocarbon odor (15-75-10).**	
25	X	50/6	100	0.0	B24-25	SM		**Damp, very dense, silty fine SAND, some gravel, very faint hydrocarbon odor (20-70-10).**	
								Boring terminated at 25.5 feet bgs and completed as well MW05 as shown in well construction detail.	
30									

Drilling Co./Driller: Cascade/D. Gose
Drilling Equipment: HSA
Sampler Type: D & M
Hammer Type/Weight: 300 lbs
Total Boring Depth: 25.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 5 to 25 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: CCC
Date Started: 11/16/2010
Surface Conditions: Asphalt
Well Location N/S: 14.1' N of NW corner of building
Well Location E/W: 30.1' W of NW corner of building
Reviewed by: JAC
Date Completed: 11/16/2010

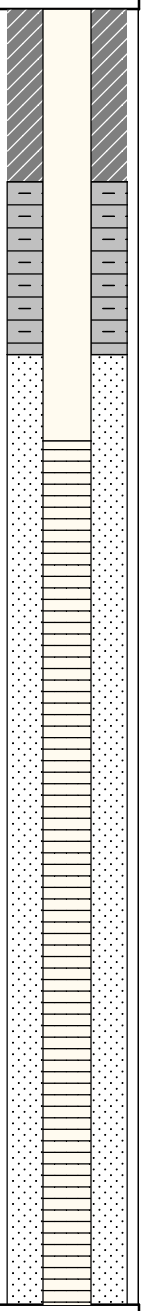
BORING LOG | B25 MW06

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling: NE feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0						Asphalt		**Asphalt (3 inches).** **Soil Cuttings: Damp to moist, sandy SILT, with gravel, no hydrocarbon odor.**
5		3 4 4	100	0.0		SM		**Moist, silty, fine SAND, some gravel.** **Soil cuttings: silty SAND to sandy SILT, some gravel, gray, no hydrocarbon odor.**
10		5 6 9	100	0.0	B25-10	ML		**Damp to moist, SILT, with clay, gray with brown, no hydrocarbon odor (100-0-0).**
		50/6	100	0.0	B25-12.5	SM		**Damp, silty SAND, some gravel, gray, very faint hydrocarbon odor (20-65-15).**
15								

Well Construction Detail



Drilling Co./Driller:	Cascade/D. Gose		**Well/Auger Diameter:**	2	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 25	feet bgs
Sampler Type:	D & M		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Cement	
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:
NE = not encountered

SoundEarth Strategies

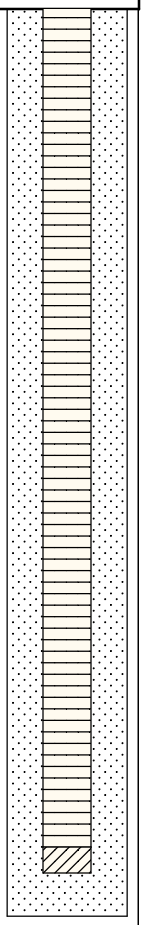
Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: CCC
Date Started: 11/16/2010
Surface Conditions: Asphalt
Well Location N/S: 14.1' N of NW corner of building
Well Location E/W: 30.1' W of NW corner of building
Reviewed by: JAC
Date Completed: 11/16/2010

BORING LOG | B25 MW06

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		50/6	100	0.0	B25-15	SP		**Damp, gravelly fine SAND, some silt, gray, very faint hydrocarbon odor (15-60-25).**	
		50/6	100	0.0	B25-17.5	SM		**Damp, silty, fine SAND, some gravel, gray, very faint paint thinner odor (20-70-10).**	
20		50/6	100	0.0	B25-20	SM		**Damp, silty, fine SAND, some gravel, gray, very faint paint thinner odor (20-65-15).**	
		50/5	30	0.0		NR		**Minor recovery.**	
25		50/4	100	0.0	B25-25	SP		**Damp, gravelly fine SAND, some silt, gray, no hydrocarbon odor (15-55-30).**	
								Boring terminated at 25.5 feet bgs and completed as well MW06 as shown in well construction detail.	
30									



Drilling Co./Driller:	Cascade/D. Gose		**Well/Auger Diameter:**	2	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 25	feet bgs
Sampler Type:	D & M		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Cement	
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: CCC
Date Started: 11/16/2010
Surface Conditions: Asphalt
Well Location N/S: 14.1' N of NW corner of building
Well Location E/W: 48' W of NW corner of building
Reviewed by: JAC
Date Completed: 11/16/2010

BORING LOG | B26 MW07

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling: NE feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.** **Soil cuttings: Damp, silty SAND, some gravel, dark gray, no hydrocarbon odor.**	
5		6 7 7	100	0.0		SP-SM		**Damp to moist, gravelly silty SAND, brown, no hydrocarbon odor (25-50-25).**	
10		7 9 9	100	0.0		ML		**Moist, SILT, gray with brown, no hydrocarbon odor (100-0-0).**	
		17 50/6	100	0.0	B26-12.5	SM		**Damp to moist, silty SAND, some gravel, tan-brown, gray at 13.25 feet bgs, no hydrocarbon odor (20-70-10).**	
15									

Drilling Co./Driller: Cascade/D. Gose
Drilling Equipment: HSA
Sampler Type: D & M
Hammer Type/Weight: 300 lbs
Total Boring Depth: 25.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 5 to 25 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite Chips
Monument Type: Flush Mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: CCC
Date Started: 11/16/2010
Surface Conditions: Asphalt
Well Location N/S: 14.1' N of NW corner of building
Well Location E/W: 48' W of NW corner of building
Reviewed by: JAC
Date Completed: 11/16/2010

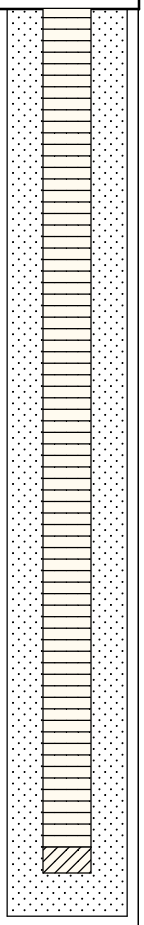
BORING LOG | B26 MW07

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling: NE feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
15		50/6	100	0.0	B26-15	SM		**Damp, silty fine SAND, some gravel, gray, no hydrocarbon odor (25-65-10).**
		50/6	100	0.0	B26-17.5	SP-SM		**Damp, silty gravelly fine SAND, gray, no hydrocarbon odor (20-55-25).**
20		50/6	100	0.0	B26-20	SP-SM		**Damp, silty gravelly fine SAND, gray, no hydrocarbon odor (20-60-20).**
		50/6	100	0.0	B26-22.5	SM		**Damp, silty SAND, some gravel, gray, no hydrocarbon odor (20-70-10).**
25		50/6	100	0.0	B26-25	SM		**Same as above.**
								Boring terminated at 25.5 feet bgs and completed as well MW07 as shown in well construction detail.
30								

Well Construction Detail



Drilling Co./Driller:	Cascade/D. Gose		**Well/Auger Diameter:**	2	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 25	feet bgs
Sampler Type:	D & M		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	#2/12 Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Cement	
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite Chips	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:
NE = not encountered

SoundEarth Strategies

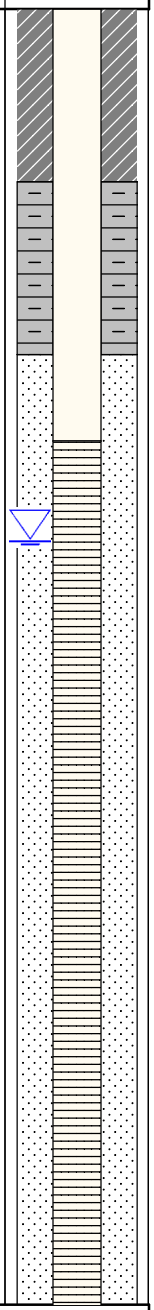
Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: CCC
Date Started: 11/16/10
Surface Conditions: Asphalt
Well Location N/S: 46' S of NW corner of building
Well Location E/W: 14' W of NW corner of building
Reviewed by: JAC
Date Completed: 11/16/10

BORING LOG | B27 MW08

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling 6 feet bgs
Water Depth After Completion 22.33 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0						Asphalt		**Asphalt (2.5 inches).**
								Hand cleared to 3 feet below ground surface (bgs). Damp, silty SAND, with gravel and cobbles, brown grading to gray, no hydrocarbon odor (Fill).
5		3 4 5	100	0.0		SP		**Wet, loose, gravelly fine to medium SAND, some silt, dark gray, no hydrocarbon odor (15-65-20) (Fill).**
		5 5 7	100	0.0	B27-7.5	SM		**Damp to moist, medium dense, silty SAND, with gravel, silt-rich inclusions, and wood fragments, brown with gray, no hydrocarbon odor (Fill).**
10		4 5 9	100	0.0	B27-10	ML		**Damp, stiff, SILT, trace fine sand, gray with brown oxidation, no hydrocarbon odor (95-5-0).**
		9 11 17	100	0.0	B27-12.5	ML		**Same as above, very stiff SILT, no sand, dark brown with gray.**
15								



Drilling Co./Driller:	Cascade/David		**Well/Auger Diameter:**	2	inches	**Notes/Comments:**
Drilling Equipment:	HSA		**Well Screened Interval:**	5	feet bgs	
Sampler Type:	D&M Split Spoon		**Screen Slot Size:**	25	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Sand		
Total Boring Depth:	30.5	feet bgs	**Surface Seal:**	Cement		
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	Flush Mount		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: CCC
Date Started: 11/16/10
Surface Conditions: Asphalt
Well Location N/S: 46' S of NW corner of building
Well Location E/W: 14' W of NW corner of building
Reviewed by: JAC
Date Completed: 11/16/10

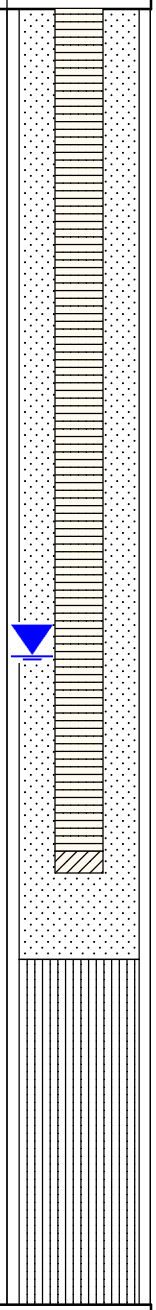
BORING LOG | B27 MW08

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling 6 feet bgs
Water Depth After Completion 22.33 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
15		10 14 14	100	778	B27-15	ML		**Moist, very stiff, fine sandy SILT to SILT, with strong partings, gray with oxidation, strong hydrocarbon odor.**
		13 50/6	100	168	B27-17.5	SM		**Damp to moist, very dense, silty fine SAND, with silt rich inclusions, moderate hydrocarbon odor (40-60-10).**
20		50/6	100	67	B27-20	SM		**Damp, very dense, silty, fine SAND, trace to some gravel, moderate hydrocarbon odor (35-60-5).**
		50/6	100	68	B27-22.5	SM		**Same as above, faint hydrocarbon odor.**
25		50/6	100	22.7	B27-25	SM		**Same as above, faint hydrocarbon odor.**
		50/6	100	0.0	B27-27.5	SM		**Damp, very dense, silty fine SAND, some gravel, faint hydrocarbon odor (20-70-10).**
30								

Well Construction Detail



Drilling Co./Driller:	Cascade/David		**Well/Auger Diameter:**	2	inches	**Notes/Comments:**
Drilling Equipment:	HSA		**Well Screened Interval:**	5	feet bgs	
Sampler Type:	D&M Split Spoon		**Screen Slot Size:**	25	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Sand		
Total Boring Depth:	30.5	feet bgs	**Surface Seal:**	Cement		
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	Flush Mount		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	CCC
Date Started:	11/16/10
Surface Conditions:	Asphalt
Well Location N/S:	46' S of NW corner of building
Well Location E/W:	14' W of NW corner of building
Reviewed by:	JAC
Date Completed:	11/16/10

BORING LOG | B27 MW08

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling 6 feet bgs

Water Depth After Completion 22.33 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	X	50/6	100	0.0	B27-30	SM		**Same as above, very faint hydrocarbon odor.**	
								Boring terminated at 30.5' bgs and completed as MW08 as shown in well construction detail.	
35									
40									
45									

Drilling Co./Driller:	Cascade/David		**Well/Auger Diameter:**	2	inches	**Notes/Comments:**
Drilling Equipment:	HSA		**Well Screened Interval:**	5	feet bgs	
Sampler Type:	D&M Split Spoon		**Screen Slot Size:**	25	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Sand		
Total Boring Depth:	30.5	feet bgs	**Surface Seal:**	Cement		
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	Flush Mount		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	ATL
Date Started:	12/06/10
Surface Conditions:	Grass
Well Location N/S:	14.4' S of NW corner of building
Well Location E/W:	57.4' E of NW corner of building
Reviewed by:	JAC
Date Completed:	12/06/10

BORING LOG | B28 MW09

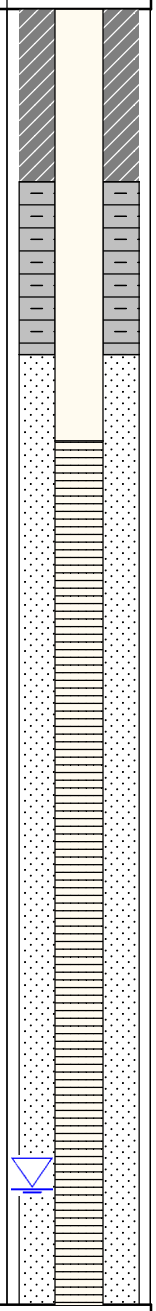
Site Address: 851 Broadway, Everett, Washington

Water Depth At Time of Drilling 13.5 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0								**Grass.** **Soil cuttings 0 to 5 feet below ground surface (bgs): Damp, silty fine to medium SAND, with subrounded gravel, brown, no hydrocarbon odor.**
5		3 4 4	100	0.0		ML		**Damp, medium stiff, sandy SILT, some subrounded to angular gravel, variegated, no hydrocarbon odor (45-45-10).**
10		3 7 11	100	0.0	B28-10	ML		**Damp, stiff, sandy SILT, with fine sand, trace organic fragments, gray with tan brown mottling, no hydrocarbon odor (50-50-10).**
		5 10 15	100	0.0	B28-12.5	ML		**Same as above.**
						SM		**Moist to wet, medium dense, silty fine to medium SAND, trace gravel, gray, possible hydrocarbon odor (20-75-5).**
15								

Well Construction Detail



Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	2	inches
Drilling Equipment:	Driller Equipt. Type		**Well Screened Interval:**	5 to 25	feet bgs
Sampler Type:	Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	Flush Mount	

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: ATL
Date Started: 12/06/10
Surface Conditions: Grass
Well Location N/S: 14.4' S of NW corner of building
Well Location E/W: 57.4' E of NW corner of building
Reviewed by: JAC
Date Completed: 12/06/10

BORING LOG | B28 MW09

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling 13.5 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		50/6	100	0.0	B28-15	SM		**Wet, very dense, silty fine to coarse SAND, some subrounded gravel, white and dark gray, faint hydrocarbon odor (20-70-10).**	
		50/6	100	0.0	B28-17.5	SM		**Damp, very dense, silty fine SAND, trace subrounded gravel, brown, no hydrocarbon odor (25-70-5).**	
20		50/6	100	0.0	B28-20	SM		**Damp, very dense, silty fine SAND, trace subrounded to wellrounded gravel, brown, no hydrocarbon odor (25-70-5).**	
		50/4	100	0.0	B28-22.5	SM		**Damp, very dense, silty fine SAND, trace subrounded to wellrounded gravel, brown, no hydrocarbon odor (30-65-5).**	
25		50/4	100	0.0	B28-25	SM		**Same as above.**	
								Boring terminated at 25.5 ft bgs and completed as monitoring well MW09 as shown in well construction detail.	
30									

Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	2	inches	**Notes/Comments:**
Drilling Equipment:	Driller Equipt. Type		**Well Screened Interval:**	5 to 25	feet bgs	
Sampler Type:	Split Spoon		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Sand		
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	Flush Mount		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: ATL
Date Started: 12/06/10
Surface Conditions: Asphalt
Well Location N/S: 45.2' S of NW corner of building
Well Location E/W: 116' W of NW corner of building
Reviewed by: JAC
Date Completed: 12/06/10

BORING LOG | B29 MW10

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt (3 to 4 inches). Structural Fill (1 inch). Concrete (4 inches).**	
								Hand cleared to 3 feet below ground surface (bgs).	
5		1 1 2	100	0.0		SM		**Damp, very loose, silty fine to coarse SAND, trace gravel, organics/wood fragments, and possible brick fragments, dark brown to gray (mottled) (45-50-5) (Fill).**	
								Moderate sewage odor.	
10		3 3 3	100	0.0	B29-10	ML		**Damp, medium stiff, SILT, gray with mottled brown oxidation, roots, no hydrocarbon odor (Fill).**	
		6 10 10	100	0.0	B29-12.5	SM		**Damp, medium dense, silty fine SAND, gray with mottled brown oxidation, no hydrocarbon odor (40-60-0).**	
15									

Drilling Co./Driller: Cascade/David
Drilling Equipment: HSA
Sampler Type: Split Spoon
Hammer Type/Weight: 300 lbs
Total Boring Depth: 25.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 5 to 25 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: ATL
Date Started: 12/06/10
Surface Conditions: Asphalt
Well Location N/S: 45.2' S of NW corner of building
Well Location E/W: 116' W of NW corner of building
Reviewed by: JAC
Date Completed: 12/06/10

BORING LOG | B29 MW10

Site Address: 851 Broadway, Everett, Washington

Water Depth At Time of Drilling: NE feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		6 7 7	100	0.0	B29-15	SM		**Damp to moist, medium dense, silty fine to coarse SAND, some subrounded to wellrounded gravel, gray with mottled brown oxidation, no hydrocarbon odor (35-55-10).**	
		7 20 24	100	0.0	B29-17.5	SP-SM		**Damp to moist, very dense, silty gravelly fine to coarse SAND, with interbedded fine and coarse cobbles, brown to orange-brown, no hydrocarbon odor (30-40-30).**	
20		50/6	100	0.0	B29-20	SM		**Damp, very dense, silty, fine SAND, some subrounded gravel, light grayish brown, no hydrocarbon odor (25-65-10).**	
		50/6	100	0.0	B29-22.5	SM		**Same as above.**	
25		50/6	100	0.0	B29-25	SM		**Same as above.**	
								Boring terminated at 25.5 feet bgs and completed as well MW10 as shown in well construction detail.	
30									

Drilling Co./Driller:	Cascade/David		**Well/Auger Diameter:**	2	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 25	feet bgs
Sampler Type:	Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	300	lbs	**Filter Pack Used:**	2/12 Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	Flush mount	

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: ATL
Date Started: 12/06/10
Surface Conditions: Asphalt
Well Location N/S: 110' S of NW corner of building
Well Location E/W: 37.3' E of NW corner of building
Reviewed by: JAC
Date Completed: 12/06/10

BORING LOG | B30 MW11

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.**	
5		4 3 2	100	0.0		SM		**Moist, loose, silty fine to medium SAND, brownish gray with localized oxidation, no hydrocarbon odor (40-60-0) (Fill).**	
10		3 2 2	100	0.0	B30-10	ML		**Moist to wet, soft, fine sandy SILT, some gravel and organics (wood chips), dark brownish gray, mottled with local green-gray and brown areas, no hydrocarbon odor (50-40-10) (Fill).**	
		2 3 5	100	0.0	B30-12.5	ML		**Damp, medium stiff, sandy SILT, dark gray with trace organics (70-30-0) (Fill).**	
15									

Drilling Co./Driller: Cascade/David
Drilling Equipment: HSA
Sampler Type: Split Spoon
Hammer Type/Weight: 300 lbs
Total Boring Depth: 25.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 5 to 25 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: ATL
Date Started: 12/06/10
Surface Conditions: Asphalt
Well Location N/S: 110' S of NW corner of building
Well Location E/W: 37.3' E of NW corner of building
Reviewed by: JAC
Date Completed: 12/06/10

BORING LOG | B30 MW11

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		7 7 10	100	0.0	B30-15	SM		**Damp, medium dense, silty fine SAND, gray with brown oxidation along bedding planes, no hydrocarbon odor (30-70-0).**	
		50/6	100	0.0	B30-17.5	SP		**Damp, very dense, gravelly fine to coarse SAND, with subrounded to subangular gravel, some silt and small cobbles, light brownish gray to orange-brown, no hydrocarbon odor (15-50-35).**	
20		50/5	100	0.0	B30-20	SM		**Damp, very dense, silty fine SAND, some subrounded gravel, light tan-brown to orange-brown, no hydrocarbon odor (25-65-10).**	
		50/6	100	0.0	B30-22.5	SM		**Damp, very dense, silty fine SAND, some subangular to subrounded gravel, light tan-brown, no hydrocarbon odor (25-60-15).**	
25		50/6	100	0.0	B30-25	SM		**Damp, very dense, silty fine SAND, some subangular to subrounded gravel, light tan-brown, no hydrocarbon odor (25-65-10).**	
								Boring terminated at 25.5 ft bgs and completed as well MW11 as shown in well construction detail.	
30									

Drilling Co./Driller: Cascade/David
Drilling Equipment: HSA
Sampler Type: Split Spoon
Hammer Type/Weight: 300 lbs
Total Boring Depth: 25.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: --

Well/Auger Diameter: 2 inches
Well Screened Interval: 5 to 25 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	06/14/2011
Surface Conditions:	Asphalt
Well Location N/S:	36.6' S of NW corner of building
Well Location E/W:	14' W of NW corner of building
Reviewed by:	DNM
Date Completed:	06/14/2011

BORING LOG | B31 RW08

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.**	
5		1 1 2	100	0.3	B31-05	SM		**Moist, loose, silty SAND, with trace gravel, dark brown, no hydrocarbon odor (30-65-5) (Fill).**	
10		5 6 5	100	0.2	B31-09	ML		**Damp, loose SILT, with sand, wood waste and brick fragments, dark brown, no hydrocarbon odor (40-60-0) (Fill).**	
		6 12 17	100	0.2	B31-12.5	ML		**Moist, loose SILT, with sand and brick fragments, dark brown, no hydrocarbon odor (40-60-0) (Fill).**	
15						SM		**Damp, dense silty SAND, with native tan gravel, light brown to gray (40-55-5).**	

Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	4	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 30	feet bgs
Sampler Type:	Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	10/20 Silicon Sand	
Total Boring Depth:	31.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	30	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHA010		**Monument Type:**	Flush mount	

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 06/14/2011
Surface Conditions: Asphalt
Well Location N/S: 36.6' S of NW corner of building
Well Location E/W: 14' W of NW corner of building
Reviewed by: DNM
Date Completed: 06/14/2011

BORING LOG | B31 RW08

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		3 4 6	100	37	B31.15	SM		**Damp, loose, silty fine SAND, with trace gravel, light brown with gray streaks, moderate hydrocarbon odor (30-65-5).**	
20		17 22 34	100	85.9	B31.20	SM		**Damp, dense, silty fine SAND, with trace gravel, grayish brown, moderate hydrocarbon odor (25-70-5).**	
25		50/6	33	35.7	B31.25	SM		**Damp, very dense, silty fine SAND, with trace gravel, grayish brown, slight hydrocarbon odor (25-70-5).**	
		50/5	33	91.8	B31-27.5	SM		**Damp, very dense, silty fine SAND, with trace gravel, grayish brown, no hydrocarbon odor (25-70-5).**	
30									

Drilling Co./Driller: Cascade
Drilling Equipment: HSA
Sampler Type: Split Spoon
Hammer Type/Weight: 140 lbs
Total Boring Depth: 31.5 feet bgs
Total Well Depth: 30 feet bgs
State Well ID No.: BHA010

Well/Auger Diameter: 4 inches
Well Screened Interval: 5 to 30 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 10/20 Silicon Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 06/14/2011
Surface Conditions: Asphalt
Well Location N/S: 36.6' S of NW corner of building
Well Location E/W: 14' W of NW corner of building
Reviewed by: DNM
Date Completed: 06/14/2011

BORING LOG | B31 RW08

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30		50/6	33	28.2	B31-30	SM		**Damp, very dense, silty SAND, with gravel, grayish brown, slight hydrocarbon odor (25-70-5).**	
								Boring terminated at 31.5' bgs, screened from 5 to 30 feet and completed as recovery well RW08.	
35									
40									
45									

Drilling Co./Driller: Cascade
Drilling Equipment: HSA
Sampler Type: Split Spoon
Hammer Type/Weight: 140 lbs
Total Boring Depth: 31.5 feet bgs
Total Well Depth: 30 feet bgs
State Well ID No.: BHA010

Well/Auger Diameter: 4 inches
Well Screened Interval: 5 to 30 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 10/20 Silicon Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	06/14/2011
Surface Conditions:	Asphalt
Well Location N/S:	5.5' S of NW corner of building
Well Location E/W:	19.3' E of NW corner of building
Reviewed by:	DNM
Date Completed:	06/14/2011

BORING LOG | B32 RW11

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.**	
5		3 2 1	100	0.0	B32-05	SM		**Damp, loose, silty SAND, with gravel, dark brown, no hydrocarbon odor (30-60-10).**	
		2 4 6	100	0.0		ML		**Damp, loose, SILT, with fine sand, wood waste and brick fragments, dark brown, mottled with local green-gray and brown areas, no hydrocarbon odor (40-60-0).**	
10		5 7 13		0.7	B32-10	ML		**Moist, loose, SILT, with fine sand, wood waste and brick fragments, dark brown, moderate hydrocarbon odor (40-60-0).**	
		12 16 24		9.5	B32-12.5	ML		**Damp, dense, SILT with fine sand, trace gravel, light brown with gray streaks, no hydrocarbon odor (35-60-5).**	
15									

Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	4" / 6.25"	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 25	feet bgs
Sampler Type:	Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	10/20 Silica Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	25	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHA011		**Monument Type:**	Flush mount	

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 06/14/2011
Surface Conditions: Asphalt
Well Location N/S: 5.5' S of NW corner of building
Well Location E/W: 19.3' E of NW corner of building
Reviewed by: DNM
Date Completed: 06/14/2011

BORING LOG | B32 RW11

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		50/5	33	57.8	B32-15	ML		**Damp, very dense, SILT, with sand, trace gravel, light brown with gray streaks, slight hydrocarbon odor (35-60-5).**	
20		50/6	33	31.4	B32-20	SM		**Damp, very dense, silty SAND, with gravel, grayish brown, slight hydrocarbon odor (25-65-10).**	
25		50/6	33	2.4	B32-25	SM		**Damp, very dense, silty SAND, with gravel, grayish brown, no hydrocarbon odor (25-65-10).**	
								Boring terminated at 25.5 feet, screened from 5 to 25 feet, and completed as recovery well RW11.	
30									

Drilling Co./Driller: Cascade
Drilling Equipment: HSA
Sampler Type: Split Spoon
Hammer Type/Weight: 140 lbs
Total Boring Depth: 25.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: BHA011

Well/Auger Diameter: 4" / 6.25" inches
Well Screened Interval: 5 to 25 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 10/20 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	06/14/2011
Surface Conditions:	Asphalt
Well Location N/S:	64.1' S of NW corner of building
Well Location E/W:	46.8' W of NW corner of building
Reviewed by:	DNM
Date Completed:	06/14/2011

BORING LOG | B33 RW10

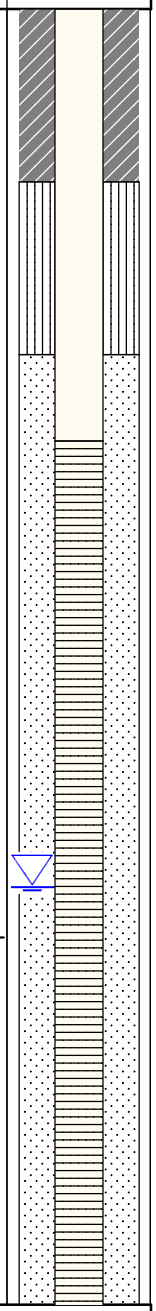
Site Address: 851 Broadway, Everett, Washington

Water Depth At Time of Drilling: 10 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0								**Asphalt.**
5		6 6 7	100	0.2	B33-05	SP		**Damp, loose, fine to medium SAND, with gravel, brown, no hydrocarbon odor (10-70-20).**
		5 3 2	100	0.4	B33-07.5	SP		**Moist, loose, fine to medium SAND, with gravel brown, no hydrocarbon odor (10-70-20).**
10		3 2 2	100	2.6	B33-10	SP		**Wet, loose, fine to medium SAND, with gravel, brown, no hydrocarbon odor (10-70-20).**
						ML		**Damp, loose, SILT, with wood waste, black, no hydrocarbon odor (40-60-0).**
		4 5 7	100	2.2	B33-12.5	ML		**Damp, loose, SILT, with fine sand, gray with brown streaks, no hydrocarbon odor (50-50-0).**
15								

Well Construction Detail



Drilling Co./Driller:	Cascade		
Drilling Equipment:	HSA		
Sampler Type:	Split Spoon		
Hammer Type/Weight:	140	lbs	
Total Boring Depth:	25.5	feet bgs	
Total Well Depth:	25	feet bgs	
State Well ID No.:	BHA012		

Well/Auger Diameter:	4" / 6.25"	inches
Well Screened Interval:	5 to 25	feet bgs
Screen Slot Size:	0.010	inches
Filter Pack Used:	10/20 Sand	
Surface Seal:	Concrete	
Annular Seal:	Bentonite	
Monument Type:	Flush mount	

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 06/14/2011
Surface Conditions: Asphalt
Well Location N/S: 64.1' S of NW corner of building
Well Location E/W: 46.8' W of NW corner of building
Reviewed by: DNM
Date Completed: 06/14/2011

BORING LOG | B33 RW10

Site Address: 851 Broadway, Everett, Washington

Water Depth At Time of Drilling: 10 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		5 8 9	100	8.8	B33-15	ML		**Damp, loose, silty fine SAND, gray with brown streaks, no hydrocarbon odor (40-60-0).**	
		17 50/6	100	296	B33-17.5	SM		**Damp, very dense, silty SAND, with gravel, gray, strong hydrocarbon odor (30-50-20).**	
20		50/5	0	--				**No recovery.**	
		50/6	33	26.6	B33-22.5	SM		**Damp, very dense, silty SAND, gray, slight hydrocarbon odor (30-70-0).**	
25		50/5	33	10.8	B33-25	SM		**Damp, very dense, silty SAND, gray, slight hydrocarbon odor.**	
								Boring terminated at 25.5 feet, screened from 5 to 25 feet, and completed as recovery well RW10.	
30									

Drilling Co./Driller: Cascade
Drilling Equipment: HSA
Sampler Type: Split Spoon
Hammer Type/Weight: 140 lbs
Total Boring Depth: 25.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: BHA012

Well/Auger Diameter: 4" / 6.25" inches
Well Screened Interval: 5 to 25 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	06/15/2011
Surface Conditions:	Asphalt
Well Location N/S:	85.5' S of NW corner of building
Well Location E/W:	31.3' W of NW corner of building
Reviewed by:	DNM
Date Completed:	06/15/2011

BORING LOG | B34 RW09

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.**	
5		3 2 1	100	4.8	B34-05	ML		**Damp, loose, SILT, with sand and wood waste, gray, slight hydrocarbon odor (40-60-0).**	
		2 6 6	100	0.8	B34-07.5	ML		**Damp, loose, SILT, with sand, with wood waste and brick fragments, no hydrocarbon odor (40-60-0).**	
10		7 7 10	0					**No recovery.**	
		5 7 9	20	0.1	B34-12.5	ML		**Damp, loose SILT, with sand, large pieces of wood in sample limits recovery, gray, no hydrocarbon odor (40-60-0).**	
15									

Drilling Co./Driller:	Cascade/David		**Well/Auger Diameter:**	4" / 6.25"	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 15	feet bgs
Sampler Type:	Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	10/20 Silica Sand	
Total Boring Depth:	16.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	15	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	Flush mount	

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 06/15/2011
Surface Conditions: Asphalt
Well Location N/S: 85.5' S of NW corner of building
Well Location E/W: 31.3' W of NW corner of building
Reviewed by: DNM
Date Completed: 06/15/2011

BORING LOG | B34 RW09

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		7 9 10	100	0.3	B34-15	**ML**		**Damp, dense, SILT, with sand, brown with gray streaks, no hydrocarbon odors (40-60-0) (Native).**	
								Boring terminated at 16.5 feet, screened from 5 to 15 feet, and completed as recovery well RW09.	
20									
25									
30									

Drilling Co./Driller: Cascade/David
Drilling Equipment: HSA
Sampler Type: Split Spoon
Hammer Type/Weight: 140 lbs
Total Boring Depth: 16.5 feet bgs
Total Well Depth: 15 feet bgs
State Well ID No.: --

Well/Auger Diameter: 4" / 6.25" inches
Well Screened Interval: 5 to 15 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 10/20 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	06/15/2011
Surface Conditions:	Asphalt
Well Location N/S:	78.7' S of NW corner of building
Well Location E/W:	14.9' W of NW corner of building
Reviewed by:	DNM
Date Completed:	06/15/2011

BORING LOG | B35 MW13

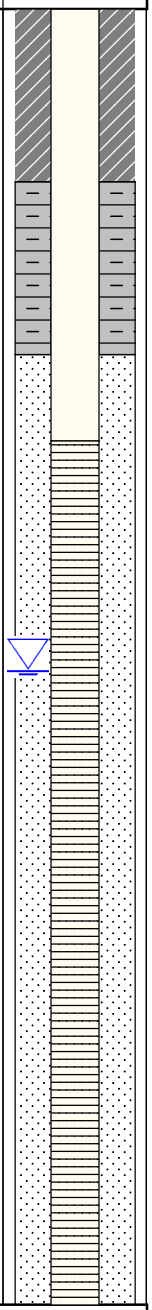
Site Address: 851 Broadway, Everett, Washington

Water Depth At Time of Drilling 7.5 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0								
5		10 14 14	100	0.0	B35-05	SP		**Asphalt.**
		5 4 6	100	0.0	B35-07.5	SP		**Damp, dense, fine to medium SAND, with gravel and trace silt, brown, no hydrocarbon odor (5-80-15) (Fill).**
						SP		**Wet, loose, medium to fine SAND, with gravel, trace silt, brown, no hydrocarbon odor (5-80-15) (Fill).**
10		4 5 5	100	0.0	B35-10	ML		**Moist, loose, SILT, with sand, wood waste, gray (40-0-0) (Fill).**
		6 6 7	20	NR	B35-12.5	ML		**Damp, loose SILT, with sand, wood waste and brick fragments, gray, no hydrocarbon odor (40-60-0) (Fill).**
15								

Well Construction Detail



Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	2" / 4.25"	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 15	feet bgs
Sampler Type:	Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	10/20 Silicon Sand	
Total Boring Depth:	16.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	15	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BHA014		**Monument Type:**	Flush mount	

Notes/Comments:

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	06/15/2011
Surface Conditions:	Asphalt
Well Location N/S:	78.7' S of NW corner of building
Well Location E/W:	14.9' W of NW corner of building
Reviewed by:	DNM
Date Completed:	06/15/2011

BORING LOG | B35 MW13

Site Address: 851 Broadway
Everett, Washington

Water Depth At Time of Drilling 7.5 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		15 17 20	100	0.0	B35-15	**ML**		**Damp, dense, silty fine SAND, brown with orange streaks, no hydrocarbon odor (Native).**	
								Boring terminated at 16.5 feet, screened from 5 to 15 feet, and completed as well MW13.	
20									
25									
30									

Drilling Co./Driller:	Cascade		**Well/Auger Diameter:**	2" / 4.25"	inches	**Notes/Comments:**
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 15	feet bgs	
Sampler Type:	Split Spoon		**Screen Slot Size:**	0.010	inches	
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	10/20 Silicon Sand		
Total Boring Depth:	16.5	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	15	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	BHA014		**Monument Type:**	Flush mount		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 06/15/2011
Surface Conditions: Asphalt
Well Location N/S: 33.9' S of NW corner of building
Well Location E/W: 48.5' W of NW corner of building
Reviewed by: DNM
Date Completed: 06/15/2011

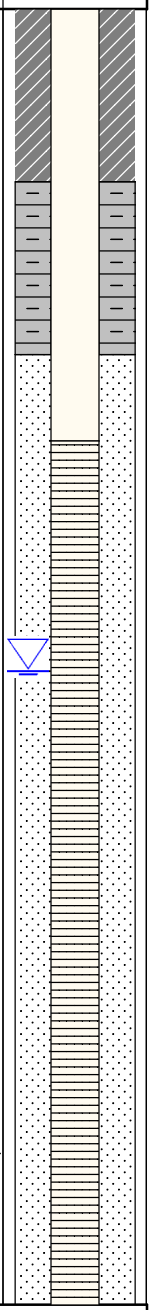
BORING LOG | B36 MW12

Site Address: 851 Broadway, Everett, Washington

Water Depth At Time of Drilling 7.5 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
0								**Asphalt.**
5		6 7 10	100	0.0	B36-05	SP		**Damp, loose, fine to medium SAND, with gravel, trace silt, brown, no hydrocarbon odor (5-80-15).**
		3 4 3	100	0.0	B36-07.5	SP		**Wet, loose, medium to fine SAND, with gravel, trace silt, brown, no hydrocarbon odor (5-80-15).**
10		4 4 4	100	0.0	B36-10	SP		**Wet, loose, fine to medium fine SAND, with gravel, trace silt, brown, no hydrocarbon odor (5-80-15).**
		12 12 14	100	0.3	B36-12.5	SP		**Same as above.**
						ML		**Damp, dense, SILT, with fine sand, brown with gray streaks, no hydrocarbon odor (40-60-0).**
15								

Well Construction Detail



Drilling Co./Driller:	Cascade/Frank		**Well/Auger Diameter:**	2" / 4.25"	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 15	feet bgs
Sampler Type:	Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	10/20 Silicon Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	15	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	Flush mount	

Notes/Comments:

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	06/15/2011
Surface Conditions:	Asphalt
Well Location N/S:	33.9' S of NW corner of building
Well Location E/W:	48.5' W of NW corner of building
Reviewed by:	DNM
Date Completed:	06/15/2011

BORING LOG | B36 MW12

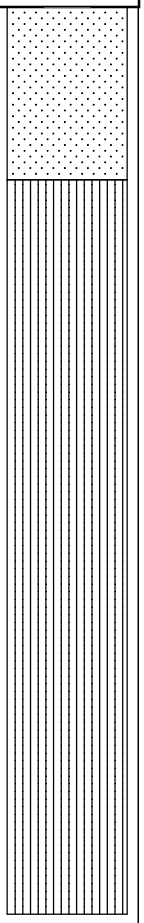
Site Address: 851 Broadway, Everett, Washington

Water Depth At Time of Drilling 7.5 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description
15		15 16 18	100	154.7	B36-15	ML		**Damp, dense, SILT, with fine sand, gray with brown banding, strong hydrocarbon odor (40-60-0).**
		50/6	33	120.8	B36-17.5	SM		**Damp, very dense, silty fine SAND, with gravel, gray, strong hydrocarbon odor (30-50-20).**
20		15 15 30	100	54.4	B36-20	SM		**Damp, dense, fine to medium SAND, gray, slight hydrocarbon odor (25-70-5).**
		40 50/5	100	47.5	B36-22.5	SM		**Damp, very dense, silty SAND, with trace gravel, gray, slight hydrocarbon odor (25-70-5).**
25		100/6	60	8.5	B36-25	SM		**Damp, very dense, silty SAND, trace gravel, gray, no hydrocarbon odor (25-70-5).**
								Boring terminated at 25.5 feet, screened from 5 to 15, backfilled from 15 to 25.5 with bentonite, and completed as well MW12.
30								

Well Construction Detail



Drilling Co./Driller:	Cascade/Frank		**Well/Auger Diameter:**	2" / 4.25"	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	5 to 15	feet bgs
Sampler Type:	Split Spoon		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	10/20 Silicon Sand	
Total Boring Depth:	25.5	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	15	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	Flush mount	

Notes/Comments:

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/23/2009
Surface Conditions:	Asphalt
Well Location N/S:	107' South of NW corner of building
Well Location E/W:	18.1' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/23/2009

BORING LOG | P01

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Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt with gravel subbase.**	
				0.0		FILL		**Damp, silty SAND, gray, no hydrocarbon odor.**	
			100	0.0					
				0.0	P01-04				
5				0.0				**Wood waste.**	
			100					**Moist, silty SAND, trace fine subrounded gravel, gray, no hydrocarbon odor.**	
				0.0	P01-07				
				0.0				**Damp, SILT, some sand, dark gray, no hydrocarbon odor.**	
				0.0				**Moist, SILT, some fine subrounded gravel, some rootlets/ wood, no hydrocarbon odor.**	
10			100	0.0				**Damp, SILT, some fine sand, gray, no hydrocarbon odor.**	
				0.0					
			100					**Moist, SILT, some fine sand, trace fine subrounded gravel and rootlets/wood, slag at 13 feet below ground surface (bgs), no hydrocarbon odor.**	
15									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	-	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	19	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/23/2009
Surface Conditions:	Asphalt
Well Location N/S:	107' South of NW corner of building
Well Location E/W:	18.1' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/23/2009

BORING LOG | P01
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15					P01-15	**ML**		**Damp, SILT, some fine sand, no hydrocarbon odor.**	
								Dark gray, rootlets.	
			100						
						SP-SM		**Damp, fine SAND, some silt, some fine to coarse subrounded gravel, brown, no hydrocarbon odor.**	
					P01-19				
20								**Boring terminated at 19 feet bgs. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.**	
25									
30									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	-	inches
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs
Sampler Type:	--		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	19	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	--	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/23/2009
Surface Conditions:	Asphalt
Well Location N/S:	107' South of NW corner of building
Well Location E/W:	35' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/23/2009

BORING LOG | P02 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 17 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt with gravel subbase.**	
				0.0		FILL		**Damp, medium SAND, some silt and fine subrounded gravel, no hydrocarbon odor.**	
				0.0					
			100						
								Damp, fine to medium SAND, some silt, trace fine subrounded gravel, no hydrocarbon odor.	
5				0.0					
				0.0	P02-06				
			100						
								Damp, silty SAND, some fine subrounded gravel and slag, dark gray, no hydrocarbon odor.	
			100	0.2					
10								**Damp, SILT, some fine sand and slag, dark gray, no hydrocarbon odor.**	
				0.6	P02-12				
								Rootlets.	
				0.0					
			100						
				0.5	P02-14			**Damp, SILT, trace slag, no hydrocarbon odor.**	
15									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	19	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 6/23/2009
Surface Conditions: Asphalt
Well Location N/S: 107' South of NW corner of building
Well Location E/W: 35' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 6/23/2009

BORING LOG | P02 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 17 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				0.0				**Damp, SILT, few fine sand, brownish gray, no hydrocarbon odor.**	
			100		P02-17	**SP**		**Wet, fine to medium SAND, some silt, dark gray, no hydrocarbon odor.**	
						SP		**Damp, fine SAND, some silt, some fine to coarse subrounded gravel, brownish-gray, no hydrocarbon odor.**	
20								**Boring terminated at 19 feet below ground surface. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.**	
25									
30									

Drilling Co./Driller: ESN
Drilling Equipment: Direct Push
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 19 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/23/2009
Surface Conditions:	Asphalt
Well Location N/S:	107' South of NW corner of building
Well Location E/W:	46.8' West of NW corner of building
Reviewed by:	PJK/RAH
Date Completed:	6/23/2009

BORING LOG | P03 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt with gravel subbase.**	
				0.0		FILL		**Damp, fine to medium SAND, some fine to coarse subrounded gravel, brown, no hydrocarbon odor.**	
			100	0.0					
								Damp, silty SAND, gray, no hydrocarbon odor.	
				0.0	P03-04			**Some slag.**	
5									
				0.0				**Some fine to coarse subrounded GRAVEL, trace slag, rootlets, no hydrocarbon odor.**	
			100						
				0.0					
				0.8	P03-07				
				0.0					
10			100	0.0				**Dark gray.**	
				0.0	P03-12				
								Moist.	
			100	0.0	P03-14				
15									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	19	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 6/23/2009
Surface Conditions: Asphalt
Well Location N/S: 107' South of NW corner of building
Well Location E/W: 46.8' West of NW corner of building
Reviewed by: PJK/RAH
Date Completed: 6/23/2009

BORING LOG | P03 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				0.0		ML		**Damp, SILT, some fine sand, gray, no hydrocarbon odor.**	
			100	0.0		SM		**Damp, silty SAND, some fine to coarse gravel, cobble at 17 feet below ground surface, reddish brown, no hydrocarbon odor.**	
				0.0	P03-19				
20								**Boring terminated at 19 feet below ground surface. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.**	
25									
30									

Drilling Co./Driller: ESN
Drilling Equipment: Direct Push
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 19 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/23/2009
Surface Conditions:	Concrete
Well Location N/S:	84.0' South of NW corner of building
Well Location E/W:	70.0' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/23/2009

BORING LOG | P04
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Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Concrete with gravel subbase.**	
				0.0		**FILL**		**Damp, fine to medium SAND, some fine subrounded gravel, trace slag, brown, no hydrocarbon odor.**	
			100						
				0.0	P04-04			**Damp, silty SAND, some fine subrounded gravel, trace slag, brown, no hydrocarbon odor.**	
5				0.0					
			100						
				0.0	P04-07			**Same as above.**	
				0.0					
10			100					**Slag from 8 to 14 feet below ground surface (bgs), no hydrocarbon odor.**	
				0.0					
			100						
15									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	19	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/23/2009
Surface Conditions:	Concrete
Well Location N/S:	84.0' South of NW corner of building
Well Location E/W:	70.0' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/23/2009

BORING LOG | P04
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15					P04-16			**Damp, silty SAND, trace slag, dark gray, no hydrocarbon odor.**	
				0.0		**ML**		**Damp, SILT, some fine sand and subrounded gravel, gray, no hydrocarbon odor.**	
			100						
								Moist, trace fine subrounded gravel.	
				0.0	P04-19				
20								**Boring terminated at 19 feet bgs. Backfilled with bentonite chips to surface grade, and finished flush to surface with asphalt plug.**	
25									
30									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	19	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/23/2009
Surface Conditions:	Concrete
Well Location N/S:	66.5' South of NW corner of building
Well Location E/W:	70.0' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/23/2009

BORING LOG | P05

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Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Concrete.**	
			0			**FILL**		**No recovery, rock in sampler.**	
5			100	0.0 0.0	P05-06			**Damp, dense, silty SAND, some fine to medium subrounded gravel, brown, no hydrocarbon odor.** **Some cobbles.**	
10			100					**Slag from 8 to 14 feet below ground surface (bgs), no hydrocarbon odor.**	
			0						
15									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	19	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/23/2009
Surface Conditions:	Concrete
Well Location N/S:	66.5' South of NW corner of building
Well Location E/W:	70.0' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/23/2009

BORING LOG | P05 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15			100					**Moist, slag from 16 to 18 feet bgs.**	
				0.0	P05-19	**SM-ML**		**Damp, SILT, some sand, some fine to coarse gravel, brown, no hydrocarbon odor.**	
20								**Boring terminated at 19' bgs. Backfilled with bentonite chips, and finished flush to surface with concrete plug.**	
25									
30									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	19	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 6/23/2009
Surface Conditions: Concrete
Well Location N/S: 44.4' South of NW corner of building
Well Location E/W: 70.0' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 6/23/2009

BORING LOG | P06
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Concrete.**	
				0.0		FILL		**Damp, fine to medium SAND, some silt, some fine to medium subrounded gravel, brown, no hydrocarbon odor.**	
			100					**Same as above, brownish gray.**	
				0.0	P06-04			**Damp, silty SAND, some fine subrounded gravel, wood and slag, gray, no hydrocarbon odor.**	
5				0.0					
			100	0.0	P06-06			**Slag from 6 to 14 feet below ground surface (bgs), no hydrocarbon odor.**	
10			100						
			100			SM		**Damp, silty SAND, some fine to coarse subrounded gravel, brown, no hydrocarbon odor.**	
15				0.0	P06-15				

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	17.5	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 6/23/2009
Surface Conditions: Concrete
Well Location N/S: 44.4' South of NW corner of building
Well Location E/W: 70.0' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 6/23/2009

BORING LOG | P06 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15			100	3.5	P06-17				
								Refusal at 17.5 feet bgs. Backfilled with bentonite chips, and finished flush to surface with concrete plug.	
20									
25									
30									

Drilling Co./Driller: ESN
Drilling Equipment: Direct Push
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 17.5 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 6/24/2009
Surface Conditions: Asphalt
Well Location N/S: 3.6' South of NW corner of building
Well Location E/W: 58.0' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 6/24/2009

BORING LOG | P07
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.**	
				0.0		FILL		**Damp, fine to medium SAND, some fine subrounded gravel, brown, no hydrocarbon odor.**	
			100					**Damp, silty SAND, some fine subrounded gravel, brown, no hydrocarbon odor.**	
				0.0	P07-04				
5				0.0				**Damp, fine to medium SAND with angular slag, brown, no hydrocarbon odor.**	
			100					**Damp, SILT, some fine sand, brick fragments and slag , dark gray, no hydrocarbon odor.**	
				0.5	P07-08			**Same as above, no sand, no brick debris.**	
								Moist.	
10			100	0.8	P07-10			**Damp, SILT, some fine sand, gray, no hydrocarbon odor.**	
			100	1.8				**Gray with red mottling.**	
			100					**Slag.**	
15									

Drilling Co./Driller: ESN
Drilling Equipment: Direct Push
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 20 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 6/24/2009
Surface Conditions: Asphalt
Well Location N/S: 3.6' South of NW corner of building
Well Location E/W: 58.0' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 6/24/2009

BORING LOG | P07 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15			100					**Damp, silty SAND, some fine gravel, brown, faint hydrocarbon odor.**	
				1,893	P07-16				
			100					**Damp, SILT, some fine sand, some fine to coarse subrounded gravel, hydrocarbon odor.**	
				1.9				**Damp, silty SAND, some fine to medium subrounded gravel, some angular slag, gray, no hydrocarbon odor.**	
			100						
						SM		**Damp, silty SAND, some fine to medium subrounded gravel, gray, no hydrocarbon odor.**	
20				3.0	P07-20				
								Boring terminated 20 feet below ground surface. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.	
25									
30									

Drilling Co./Driller: ESN
Drilling Equipment: Direct Push
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 20 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/24/2009
Surface Conditions:	Asphalt
Well Location N/S:	5.0' South of NW corner of building
Well Location E/W:	34.6' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/24/2009

BORING LOG | P08 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 15 feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0				0.0		FILL		**Asphalt underlain by damp, fine to medium SAND with fine to coarse subrounded gravel, brown, no hydrocarbon odor.**	
								Damp, silty SAND, some fine to medium subrounded gravel, trace slag, gray, no hydrocarbon odor.	
			100	0.0					
				0.0	P08-04				
5				1.0					
			100	1.0				**3-inch layer of slag.**	
								Cobbles.	
				6.1	P08-08			**Damp, SILT, some fine sand, brick fragments and slag, rootlets/wood, dark gray, no hydrocabon odor.**	
				2.0					
10			100	1.1				**Damp, SILT, some sand and rootlets, grayish-brown, no hydrocarbon odor.**	
				1.1					
				1.1	P08-12				
								Faint hydrocarbon odor.	
				5.5					
			100					**Moist, fine to medium SAND, some silt, some fine gravel, gray, moderate hydrocarbon odor, sheen observed on water in sample.**	
15									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	22	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 6/24/2009
Surface Conditions: Asphalt
Well Location N/S: 5.0' South of NW corner of building
Well Location E/W: 34.6' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 6/24/2009

BORING LOG | P08 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				2,331	P08-15			**Wet, fine to medium SAND, gray, moderate hydrocarbon odor.**	
				1,600					
			100			**SM**		**Damp, silty SAND, some fine to coarse subrounded gravel, gray, faint hydrocarbon odor.**	
				135				**Damp, silty SAND, trace fine subrounded gravel, gray, faint hydrocarbon odor.**	
			100						
20				38	P08-20				
			100	35				**Some fine subrounded gravel, no hydrocarbon odor.**	
				40	P08-22				
								Boring terminated at 22 feet below ground surface. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.	
25									
30									

Drilling Co./Driller: ESN
Drilling Equipment: Direct Push
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 22 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/24/2009
Surface Conditions:	Asphalt
Well Location N/S:	4.7' South of NW corner of building
Well Location E/W:	10.5' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/24/2009

BORING LOG | P09 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling: NE feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.**	
				0.0		**FILL**		**Damp, fine to medium SAND, some fine subrounded gravel, brown, no hydrocarbon odor.**	
			100	2.4				**Damp, silty SAND, some fine subrounded gravel, gray, no hydrocarbon odor.**	
				6.6	P09-04			**Some wood.**	
5				0.0					
			100	0.0					
				4.9	P09-07			**Moist, medium to coarse SAND, some fine subrounded gravel, no hydrocarbon odor.**	
10			100						
				8.2	P09-12	**ML**		**Damp, SILT, some fine sand, brown, no hydrocarbon odor.**	
				1,500				**Moderate hydrocarbon odor.**	
			100					**Strong hydrocarbon odor.**	
15									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	22	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-169
Project Number: 0440-002
Logged by: RAH
Date Started: 6/24/2009
Surface Conditions: Asphalt
Well Location N/S: 4.7' South of NW corner of building
Well Location E/W: 10.5' West of NW corner of building
Reviewed by: PJK/RKB
Date Completed: 6/24/2009

BORING LOG | P09
--

Site Address: 851 North Broadway
Everett, Washington

Water Depth At Time of Drilling NE feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				8,762	P09-15			**Separate phase hydrocarbons in soil sample.**	
				7,730		**SM**		**Damp, silty SAND, some fine subrounded gravel, gray, moderate hydrocarbon odor.**	
			100	1,750					
20				678	P09-20				
			100						
				75	P09-22				
25								**Refusal at 22 feet below ground surface. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.**	
30									

Drilling Co./Driller: ESN
Drilling Equipment: Direct Push
Sampler Type: --
Hammer Type/Weight: -- lbs
Total Boring Depth: 22 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
NE = not encountered

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/24/2009
Surface Conditions:	Asphalt
Well Location N/S:	29.2' South of NW corner of building
Well Location E/W:	42.7' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/24/2009

BORING LOG | P10 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Asphalt.**	
				0.0		FILL		**Damp, fine to medium SAND, some fine subrounded gravel, brown, no hydrocarbon odor.**	
			100	0.0					
				2.1	P10-04				
5									
			100	0.8					
				0.6					
				1.3	P10-08				
10									
			100	1.5				**Moist.**	
				2.6	P10-12			**Damp, SILT, some sand, gray, moderate hydrocarbon odor.**	
				11.4					
			100	54.4					
15									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/24/2009
Surface Conditions:	Asphalt
Well Location N/S:	29.2' South of NW corner of building
Well Location E/W:	42.7' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/24/2009

BORING LOG | P10 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				298					
				150	P10-16			**Same as above, some fine to coarse subrounded gravel, trace slag debris, gray, no hydrocarbon odor.**	
			100	36.9		SM		**Damp, silty SAND, some fine subrounded gravel, gray, no hydrocarbon odor.**	
20				68	P10-20				
								Boring terminated 20 feet below ground surface. Backfilled with bentonite chips, and finished flush to surface with asphalt plug.	
25									
30									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/24/2009
Surface Conditions:	Bark/ Top soil
Well Location N/S:	76.4' South of NW corner of building
Well Location E/W:	53.0' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/24/2009

BORING LOG | P11 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0				0.0		FILL		**Bark/topsoil. Damp, fine to medium SAND, some fine to coarse subrounded gravel, brown, no hydrocarbon odor.**	
			100						
				1.6	P11-04				
5				1.2					
			100						
				1.1					
				12.0	P11-08			**Damp, silty SAND, some gravel, slag, dark gray, moderate hydrocarbon odor.**	
10			100						
				11.2	P11-12			**Damp, SILT, some sand, trace fine subrounded gravel, some wood, no hydrocarbon odor.**	
			100						
15									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-169
Project Number:	0440-002
Logged by:	RAH
Date Started:	6/24/2009
Surface Conditions:	Bark/ Top soil
Well Location N/S:	76.4' South of NW corner of building
Well Location E/W:	53.0' West of NW corner of building
Reviewed by:	PJK/RKB
Date Completed:	6/24/2009

BORING LOG | P11 --

Site Address: 851 North Broadway, Everett, Washington

Water Depth At Time of Drilling NE feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				5.6	P11-16			**Damp, SILT, some fine sand, some slag, grayish-brown, no hydrocarbon odor.**	
			100						
				10.1				**Damp, SILT, some gravel, some slag, dark brown, no hydrocarbon odor.**	
			100						
20				34.8	P11-20				
								Boring terminated at 20 feet below ground surface. Backfilled with bentonite chips, and finished flush to surface.	
25									
30									

Drilling Co./Driller:	ESN		**Well/Auger Diameter:**	--	inches	**Notes/Comments:**
Drilling Equipment:	Direct Push		**Well Screened Interval:**	--	feet bgs	NE = not encountered
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

APPENDIX B

Laboratory Analytical Reports

Friedman & Bruya, Inc. #011197

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
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November 23, 2010

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included are the results from the testing of material submitted on November 15, 2010 from the TOC_01-169_20101115 WORFDB4, F&BI 011197 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU1123R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 15, 2010 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20101115 WORFDB4, F&BI 011197 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
011197-01	B22-12.5
011197-02	B22-15
011197-03	B22-17.5
011197-04	B22-20
011197-05	B22-22.5
011197-06	B22-25
011197-07	B23-12.5
011197-08	B23-15
011197-09	B23-17.5
011197-10	B23-20
011197-11	B23-22.5
011197-12	B23-25
011197-13	B24-12.5
011197-14	B24-15
011197-15	B24-17.5
011197-16	B24-20
011197-17	B24-22.5
011197-18	B24-25

All quality control requirements were acceptable.

Date of Report: 11/23/10
Date Received: 11/15/10
Project: TOC_01-169_20101115 WORFDB4, F&BI 011197
Date Extracted: 11/16/10
Date Analyzed: 11/16/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-132)
B22-17.5 011197-03	<0.02	0.20	0.53	4.9	200	112
B23-17.5 011197-09	<0.02	<0.02	<0.02	<0.06	<2	83
B24-12.5 011197-13	0.025	0.086	<0.02	0.11	2.3	86
Method Blank 00-1890 MB	<0.02	<0.02	<0.02	<0.06	<2	83

Date of Report: 11/23/10
Date Received: 11/15/10
Project: TOC_01-169_20101115 WORFDB4, F&BI 011197

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 011208-01 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	85	69-120
Toluene	mg/kg (ppm)	0.5	84	70-117
Ethylbenzene	mg/kg (ppm)	0.5	82	65-123
Xylenes	mg/kg (ppm)	1.5	84	66-120
Gasoline	mg/kg (ppm)	20	90	71-131

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

011197

SAMPLE CHAIN OF CUSTODY ME 11-15-10 VS3/CI3

Send Report To Ryan Binby & Becca Johnson
Company Sound Earth Strategies, Inc
Address 2811 Fairview Avenue East So. 2000
City, State, ZIP Seattle WA 98102
Phone # 206 306-1900 Fax # 206 306-1907

SAMPLERS (signature)
PROJECT NAME/NO. TOC #01-167
PO #
REMARKS
GEMS Y / N

Page # 1 of 2

TURNAROUND TIME
☐ Standard (2 Weeks)
X RUSH 24 Hr
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
								ANALYSES REQUESTED								PID
B22-12.5			01 AE	11/15/10	0925	S	5									0
B22-15.			02 AE		0932											0
B22-17.5			03		0937				X	X						3.1
B22-20			04		0943											0
B22-22.5			05		0949											0
B22-25			06		0955											0
B23-12.5			07		1110											0
B23-15			08		1117											0
B23-17.5			09		1123				X	X						0
B23-20			10		1128											0
B23-22.5			11		1133											0
B23-25			12		1138											0
B24-12.5			13	V	1315	V	V		X	X						4.3

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Charles Cacek	SES	11/15/10	3:45
Received by:		Shinazy	FBI	1	3:45
Relinquished by					
Received by					

Samples received at 4 °C

FORMS\COC\SESGEMSR1.DOC (Revision 1)

011197

SAMPLE CHAIN OF CUSTODY ME 11-15-10

VS3/CI3

Send Report To Ryan Bixby & Beau Johnson
Company SoundEarth Strategies, Inc.
Address 2811 Fairview Ave East, Su. 2000
City, State, ZIP Seattle WA 98102
Phone # 206-306-1900 Fax # 206-306-1507

SAMPLERS (signature)
PROJECT NAME/NO. TOC#01-169
PO #
REMARKS
GEMS Y / N

Page # 2 of 2

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 24 hr
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B24-15			14 A-E	11/15/10	1320	soil	5									P110 ⊘
B24-17.5			15	↓	1325	↓	↓									⊘
B24-20			16	↓	1330	↓	↓									⊘
B24-22.5			17	↓	1335	↓	↓									⊘
B24-25			18	↓	1340	↓	↓									⊘

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Charles Cacek	SES	11/15/10	3:45
Received by: [signature]	Jon Kimura	FBI	/	/
Relinquished by:				
Received by:		Samples received at 4 °C		

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Friedman & Bruya, Inc. #011197 additional

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

December 6, 2010

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included are the additional results from the testing of material submitted on November 15, 2010 from the TOC_01-169_20101115_20101115 WORFDB4, F&BI 011197 project. There are 5 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU1206R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 15, 2010 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20101115 WORFDB4, F&BI 011197 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
011197-01	B22-12.5
011197-02	B22-15
011197-03	B22-17.5
011197-04	B22-20
011197-05	B22-22.5
011197-06	B22-25
011197-07	B23-12.5
011197-08	B23-15
011197-09	B23-17.5
011197-10	B23-20
011197-11	B23-22.5
011197-12	B23-25
011197-13	B24-12.5
011197-14	B24-15
011197-15	B24-17.5
011197-16	B24-20
011197-17	B24-22.5
011197-18	B24-25

All quality control requirements were acceptable.

Date of Report: 12/06/10
Date Received: 11/15/10
Project: TOC_01-169_20101115_20101115 WORFDB4, F&BI 011197
Date Extracted: 11/29/10 and 12/01/10
Date Analyzed: 11/29/10 and 12/02/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-132)
B22-15 011197-02	<0.02	<0.02	<0.02	<0.06	<2	94
B22-20 011197-04	<0.02	0.022	<0.02	0.098	<2	83
B23-15 011197-08	<0.02	<0.02	<0.02	<0.06	<2	85
B23-20 011197-10	<0.02	<0.02	<0.02	<0.06	<2	84
B24-15 011197-14	<0.02	0.046	<0.02	0.15	3.9	81
B24-17.5 011197-15	<0.02	<0.02	<0.02	<0.06	<2	84
Method Blank 00-1961 MB	<0.02	<0.02	<0.02	<0.06	<2	84
Method Blank 00-1984 MB	<0.02	<0.02	<0.02	<0.06	<2	84

Date of Report: 12/06/10
Date Received: 11/15/10
Project: TOC_01-169_20101115_20101115 WORFDB4, F&BI 011197

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 011277-02 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	86	66-121
Toluene	mg/kg (ppm)	0.5	85	72-128
Ethylbenzene	mg/kg (ppm)	0.5	85	69-132
Xylenes	mg/kg (ppm)	1.5	86	69-131
Gasoline	mg/kg (ppm)	20	105	61-153

Date of Report: 12/06/10
Date Received: 11/15/10
Project: TOC_01-169_20101115_20101115 WORFDB4, F&BI 011197

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 011323-02 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	86	69-120
Toluene	mg/kg (ppm)	0.5	82	70-117
Ethylbenzene	mg/kg (ppm)	0.5	81	65-123
Xylenes	mg/kg (ppm)	1.5	84	66-120
Gasoline	mg/kg (ppm)	20	85	71-131

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

011197

SAMPLE CHAIN OF CUSTODY MG 11-15-10 VS3/CI3

Page # 1 of 2

· Send Report To Ryan Bixby & Becca Johnson
Company SoundEarth Strategies, Inc
Address 2811 Fairview Avenue East Ste. 2000
City, State, ZIP Seattle WA 98102
Phone # 206.306.1900 Fax # 206.306.1907

SAMPLERS (signature)
PROJECT NAME/NO. TOC #01-169
PO #
REMARKS
GEMS Y / N

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 24 Hr
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
								ANALYSES REQUESTED								V-per AH 11/29/10 MG *-per BS 12/1/10 MG
B22-12.5			01 A E	11/15/10	0925	S	5									PID 0
B22-15			02 A E		0932				✓	✓						0
B22-17.5			03		0937				X	X						0
B22-20			04		0943				✓	✓						0
B22-22.5			05		0949											0
B22-25			06		0955											0
B23-12.5			07		1110											0
B23-15			08		1117				★	★						0
B23-17.5			09		1123				X	X						0
B23-20			10		1128				★	★						0
B23-22.5			11		1133											0
B23-25			12		1138											0
B24-12.5			13	↓	1315	↓	↓		X	X						4.3

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by	Chris Cacek	SES	11/15/10	3:40
Received by	Dan Shimazu	FBI	1	3:45
Relinquished by				
Received by				

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

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011197

SAMPLE CHAIN OF CUSTODY ME 11-15-10

VS3 / CT3

Page # 2 of 2

Send Report To Ryan Bixby & Brad Johnson
Company Sound Earth Strategies, Inc.
Address 2811 Fairview Ave. East, Su. 2000
City, State, ZIP Seattle WA 98102
Phone # 206-326-1900 Fax # 206-326-1507

SAMPLERS (signature)

PROJECT NAME/NO. TOC #01-167

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 24 hr
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
								ANALYSES REQUESTED								
B24-15			14 A-E	11/15/10	1320	Soil	5		✱	✱						DUP
B24-17.5			15		1325				✱	✱						
B24-20			16		1330											
B24-22.5			17		1335											
B24-25			18	↓	1340	↓	↓									

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Charles Cusick	SES	11/15/10	3:45
Received by:		Jon Zimmerman	FB	1	1
Relinquished by:					
Received by:					

Samples received at 4 °C

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Friedman & Bruya, Inc. #011216

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

November 23, 2010

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included are the results from the testing of material submitted on November 16, 2010 from the TOC_01-169_20101116 WORFDB4, F&BI 011216 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU1123R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 16, 2010 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20101116 WORFDB4, F&BI 011216 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
011216-01	B25-12.5
011216-02	B26-12.5
011216-03	B25-10
011216-04	B25-15
011216-05	B25-17.5
011216-06	B25-20
011216-07	B25-25
011216-08	B26-15
011216-09	B26-17.5
011216-10	B26-20
011216-11	B26-22.5
011216-12	B26-25
011216-13	B27-7.5
011216-14	B27-10
011216-15	B27-12.5
011216-16	B27-15
011216-17	B27-17.5
011216-18	B27-20
011216-19	B27-22.5
011216-20	B27-25
011216-21	B27-27.5
011216-22	B27-30

All quality control requirements were acceptable.

Date of Report: 11/23/10
Date Received: 11/16/10
Project: TOC_01-169_20101116 WORFDB4, F&BI 011216
Date Extracted: 11/16/10 and 11/17/10
Date Analyzed: 11/17/10 and 11/18/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
B25-12.5 011216-01	<0.02	<0.02	<0.02	<0.06	<2	81
B26-12.5 011216-02	<0.02	<0.02	<0.02	<0.06	<2	77
B27-10 011216-14	<0.02	<0.02	<0.02	<0.06	<2	97
B27-12.5 011216-15	0.089	<0.02	0.053	<0.06	3.0	104
B27-15 011216-16 1/50	<1	3.0	6.1	42	520	ip
B27-17.5 011216-17 1/10	<0.2	0.95	<0.2	1.4	<20	89
B27-20 011216-18	0.053	0.39	0.073	0.63	5.0	84
B27-22.5 011216-19 1/10	<0.2	0.48	<0.2	0.84	<20	92
B27-25 011216-20	<0.02	0.077	<0.02	0.13	<2	84
B27-27.5 011216-21	0.028	0.11	<0.02	0.16	<2	85

Date of Report: 11/23/10
Date Received: 11/16/10
Project: TOC_01-169_20101116 WORFDB4, F&BI 011216
Date Extracted: 11/16/10 and 11/17/10
Date Analyzed: 11/17/10 and 11/18/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
B27-30 011216-22	<0.02	<0.02	<0.02	<0.06	<2	84
Method Blank 00-1892 MB	<0.02	<0.02	<0.02	<0.06	<2	85

Date of Report: 11/23/10
Date Received: 11/16/10
Project: TOC_01-169_20101116 WORFDB4, F&BI 011216

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 011215-02 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	0.068 a	0.13	60 a
Toluene	mg/kg (ppm)	0.053 a	0.082 a	43 a
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	0.069 a	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	86	69-120
Toluene	mg/kg (ppm)	0.5	85	70-117
Ethylbenzene	mg/kg (ppm)	0.5	83	65-123
Xylenes	mg/kg (ppm)	1.5	85	66-120
Gasoline	mg/kg (ppm)	20	85	71-131

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

011216

VS3/CI3

SAMPLE CHAIN OF CUSTODY ME 11-16-10

Page # 1 of ~~2~~ 3

Send Report To Beau Johnson

Company Sand Earth Strategies

Address 2811 Fairview Ave E

City, State, ZIP Seattle, WA 98102

Phone # 206 306 1900 Fax #

SAMPLERS (signature) AR + CCC

PROJECT NAME/NO. C1-169 2010 SSI

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ ~~RUSH~~ asap

Rush charges authorized by: Beau Johnson

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B25-12.5	B25	12.5'	01 A-G	11/16/10	0848	Soil	~~6~~ 5		X	X						
B26-12.5	B26	12.5'	02 A-E	11/16/10	1040	Soil	5		X	X						

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Andrew Leaf	SES	11/16/10	1640
Received by:	Doug	FeBI	11	11
Relinquished by:				
Received by:		Samples received at 4 °C		

FORMS\COC\SESGEMSR1.DOC (Revision 1)

011216

VS3 / CI3

SAMPLE CHAIN OF CUSTODY ME 11-16-10

Page # 2 of 3

Send Report To Beau Johnson

Company SES

Address 2811 Fairview Ave E

City, State, ZIP Seattle, WA 98102

Phone # 2063061900 Fax #

SAMPLERS (signature) AR + CCC

PROJECT NAME/NO. 01-169 2010 SSI

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth (ft)	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B25-10	B25	10	03 A-E	11/16/10	0840	Soil	5									
B25-15		15	04 A-E		0850											
B25-17.5		17.5	05 A-E		0855											
B25-20		20	06 A-E		0900											
B25-22.5		22.5	07 A-E					(NP)	DO	not	received					
B25-25	↓	25	08 A-E		0910											If there is a sample, then run (may not be one
~~B26-5~~																
B26-15	B26	15	08 A-E		1043											
B26-17.5		17.5	~~08~~ 09 A-E		1047											
B26-20		20	10 A-E		1052											
B26-22.5		22.5	11 A-E		1057											
B26-25	↓	25	12 A-E		1102											
B27-7.5	B27	27.5	13 A-E	↓	1303	↓	↓									

ANALYSES REQUESTED

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Andrew Lee	SES	11/16/10	1640
Received by:		DAVID	FedEx	4	4
Relinquished by:					
Received by:			Samples received at	4 °C	

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

011216

SAMPLE CHAIN OF CUSTODY

ME 11-16-10

VS3/CD3

Page # 3 of 3

Send Report To Drew Johnson

Company SES

Address 2811 Fairview Ave E

City, State, ZIP Seattle WA 98112

Phone # 2063061900 Fax #

SAMPLERS *(signature)* ATR FCCC

PROJECT NAME/NO. 01-169 2010551

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth (ft)	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B27-10	B27	10	14 A-E	11/16/10	1307	Soil	5		X	X						
B27-12.5	↓	12.5	15	↓	1312	↓	↓		X	X						
B27-15		15	16		1318				X	X						
B27-17.5		17.5	17		1322				X	X						
B27-20		20	18		1326				X	X						
B27-22.5		22.5	19		1330				X	X						
B27-25		25	20		1337				X	X						
B27-27.5		27.5	21		1354				X	X						
B27-30	↓	30	22	↓	1357	↓	↓		X	X						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Andrew Lee	SES	11/16/10	1640
Received by:	D D VO	FedEx	11	4
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

Friedman & Bruya, Inc. #011216 additional, dated December 7, 2010

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

December 7, 2010

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

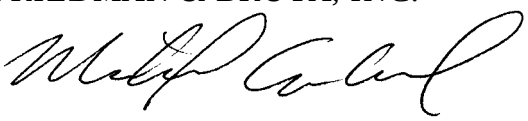
Dear Mr. Bixby:

Included are the additional results from the testing of material submitted on November 16, 2010 from the TOC_01-169_20101116_20101116 WORFDB4, F&BI 011216 project. There are 4 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU1207R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 16, 2010 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20101116 WORFDB4, F&BI 011216 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
011216-01	B25-12.5
011216-02	B26-12.5
011216-03	B25-10
011216-04	B25-15
011216-05	B25-17.5
011216-06	B25-20
011216-07	B25-25
011216-08	B26-15
011216-09	B26-17.5
011216-10	B26-20
011216-11	B26-22.5
011216-12	B26-25
011216-13	B27-7.5
011216-14	B27-10
011216-15	B27-12.5
011216-16	B27-15
011216-17	B27-17.5
011216-18	B27-20
011216-19	B27-22.5
011216-20	B27-25
011216-21	B27-27.5
011216-22	B27-30

Sample B25-22.5 was not received by the laboratory.

All quality control requirements were acceptable.

Date of Report: 12/07/10
Date Received: 11/16/10
Project: TOC_01-169_20101116_20101116 WORFDB4, F&BI 011216
Date Extracted: 12/01/10
Date Analyzed: 12/02/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
B25-10 011216-03	<0.02	<0.02	<0.02	<0.06	<2	103
B25-15 011216-04	<0.02	<0.02	<0.02	<0.06	<2	84
B26-15 011216-08	<0.02	<0.02	<0.02	<0.06	<2	82
B26-17.5 011216-09	<0.02	<0.02	<0.02	<0.06	<2	86
Method Blank 00-1984 MB	<0.02	<0.02	<0.02	<0.06	<2	84

Date of Report: 12/07/10
Date Received: 11/16/10
Project: TOC_01-169_20101116_20101116 WORFDB4, F&BI 011216

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 011323-02 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	86	69-120
Toluene	mg/kg (ppm)	0.5	82	70-117
Ethylbenzene	mg/kg (ppm)	0.5	81	65-123
Xylenes	mg/kg (ppm)	1.5	84	66-120
Gasoline	mg/kg (ppm)	20	85	71-131

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

011216

VS3/CI3

SAMPLE CHAIN OF CUSTODY ME 11-16-10

Page # 1 of ~~2~~ 3

Send Report To Beau Johnson

Company Sand Earth Strategies

Address 2811 Fairview Ave E

City, State, ZIP Seattle, WA 98102

Phone # 206 306 1900 Fax #

SAMPLERS (signature) AR + CCC

PROJECT NAME/NO. C1-169 2010 SSI

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ ~~RUSH~~ asap

Rush charges authorized by: Beau Johnson

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B25-12.5	B25	12.5'	01 A-G	11/16/10	0848	Soil	~~6~~ 5		X	X						
B26-12.5	B26	12.5'	02 A-E	11/16/10	1040	Soil	5		X	X						

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Andrew Leaf	SES	11/16/10	1640
Received by:	Doug	FeBI	11	11
Relinquished by:				
Received by:		Samples received at 4 °C		

FORMS\COC\SESGEMSR1.DOC (Revision 1)

011216

VS3 / CI3

SAMPLE CHAIN OF CUSTODY ME 11-16-10

Page # 2 of 3

Send Report To Beau Johnson

Company SES

Address 2811 Fairview Ave E

City, State, ZIP Seattle, WA 98102

Phone # 2063061900 Fax #

SAMPLERS (signature) AR + CCC

PROJECT NAME/NO. 01-169 2010 SSI

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth (ft)	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B25-10	B25	10	03 A-E	11/16/10	0840	Soil	5									
B25-15		15	04 A-E		0850											
B25-17.5		17.5	05 A-E		0855											
B25-20		20	06 A-E		0900											
B25-22.5		22.5	07 A-E					(NP)	DO	not	received					
B25-25	↓	25	08 A-E		0910											If there is a sample, then run (may not be one
~~B26-5~~																
B26-15	B26	15	08 A-E		1043											
B26-17.5		17.5	~~08~~ 09 A-E		1047											
B26-20		20	10 A-E		1052											
B26-22.5		22.5	11 A-E		1057											
B26-25	↓	25	12 A-E		1102											
B27-7.5	B27	27.5	13 A-E	↓	1303	↓	↓									

ANALYSES REQUESTED

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Andrew Lee	SES	11/16/10	1640
Received by:		DAVID	FedEx	4	4
Relinquished by:					
Received by:			Samples received at	4 °C	

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

011216

SAMPLE CHAIN OF CUSTODY

ME 11-16-10

VS3/CD3

Page # 3 of 3

Send Report To Drew Johnson

Company SES

Address 2811 Fairview Ave E

City, State, ZIP Seattle WA 98112

Phone # 2063061900 Fax #

SAMPLERS *(signature)* ATR FCCC

PROJECT NAME/NO. 01-169 2010551

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth (ft)	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B27-10	B27	10	14 A-E	11/16/10	1307	Soil	5		X	X						
B27-12.5	↓	12.5	15	↓	1312	↓	↓		X	X						
B27-15		15	16		1318				X	X						
B27-17.5		17.5	17		1322				X	X						
B27-20		20	18		1326				X	X						
B27-22.5		22.5	19		1330				X	X						
B27-25		25	20		1337				X	X						
B27-27.5		27.5	21		1354				X	X						
B27-30	↓	30	22	↓	1357	↓	↓		X	X						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Andrew Lee	SES	11/16/10	1640
Received by:	D D VO	FedEx	11	4
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

Friedman & Bruya, Inc. #011216 additional, dated January 6, 2011

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

January 6, 2011

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

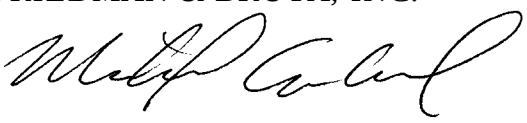
Dear Mr. Bixby:

Included are the additional results from the testing of material submitted on November 16, 2011 from the TOC_01-169_20101116 WORFDB4, F&BI 011216 project. There are 8 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson, Chuck Cacek
SOU0106R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 16, 2010 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20101116 WORFDB4, F&BI 011216 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
011216-01	B25-12.5
011216-02	B26-12.5
011216-03	B25-10
011216-04	B25-15
011216-05	B25-17.5
011216-06	B25-20
011216-07	B25-25
011216-08	B26-15
011216-09	B26-17.5
011216-10	B26-20
011216-11	B26-22.5
011216-12	B26-25
011216-13	B27-7.5
011216-14	B27-10
011216-15	B27-12.5
011216-16	B27-15
011216-17	B27-17.5
011216-18	B27-20
011216-19	B27-22.5
011216-20	B27-25
011216-21	B27-27.5
011216-22	B27-30

Sample B25-22.5 was not received by the laboratory.

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 200.8

Client ID:	TOC 01-169 Composite	Client:	SoundEarth Strategies
Date Received:	11/16/10	Project:	TOC_01-169_20101116 WORFDB4
Date Extracted:	12/30/10	Lab ID:	011216-01,02,15,16,20,22
Date Analyzed:	01/03/11	Data File:	011216-01,02,15,16,20,22.022
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	84	60	125
Holmium	91	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	16.9
Arsenic	3.22
Selenium	<1
Silver	<1
Cadmium	<1
Barium	54.9
Lead	3.01

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	TOC_01-169_20101116 WORFDB4
Date Extracted:	12/30/10	Lab ID:	I0-752 mb
Date Analyzed:	01/03/11	Data File:	I0-752 mb.031
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	87	60	125
Indium	85	60	125
Holmium	90	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Date of Report: 01/06/11
Date Received: 11/16/10
Project: TOC_01-169_20101116 WORFDB4, F&BI 011216
Date Extracted: 12/30/10
Date Analyzed: 01/03/11

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
TOC 01-169 Composite 011216-01,02,15,16,20,22	<0.2 ht
Method Blank	<0.2

Date of Report: 01/06/11
Date Received: 11/16/10
Project: TOC_01-169_20101116 WORFDB4, F&BI 011216

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 011073-20 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/kg (ppm)	50	6.69	108	107	51-132	1
Arsenic	mg/kg (ppm)	10	1.61	104	100	44-151	4
Selenium	mg/kg (ppm)	5	<1	95	93	52-128	2
Silver	mg/kg (ppm)	10	<1	110	108	69-125	2
Cadmium	mg/kg (ppm)	10	<1	110	107	83-120	3
Barium	mg/kg (ppm)	50	67.8	113 b	113 b	47-147	0 b
Lead	mg/kg (ppm)	20	3.35	101	105	65-126	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	114	79-125
Arsenic	mg/kg (ppm)	10	102	80-120
Selenium	mg/kg (ppm)	5	102	81-121
Silver	mg/kg (ppm)	10	107	84-117
Cadmium	mg/kg (ppm)	10	107	89-116
Barium	mg/kg (ppm)	50	110	88-113
Lead	mg/kg (ppm)	20	104	81-120

Date of Report: 01/06/11
Date Received: 11/16/10
Project: TOC_01-169_20101116 WORFDB4, F&BI 011216

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 011073-20 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.2	156	144	45-162	8

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	113	63-144

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

011216

VS3/CI3

SAMPLE CHAIN OF CUSTODY ME 11-16-10

Page # 1 of ~~2~~ 3

Send Report To Beau Johnson

Company Sand Earth Strategies

Address 2811 Fairview Ave E

City, State, ZIP Seattle, WA 98102

Phone # 206 306 1900 Fax #

SAMPLERS (signature) AR + CCC

PROJECT NAME/NO. C1-169 2010 SSI

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ ~~RUSH~~ asap

Rush charges authorized by: Beau Johnson

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B25-12.5	B25	12.5'	01 A-G	11/16/10	0848	Soil	~~6~~ 5		X	X						
B26-12.5	B26	12.5'	02 A-E	11/16/10	1040	Soil	5		X	X						

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Andrew Leaf	SES	11/16/10	1640
Received by:	Doug	FeBI	11	11
Relinquished by:				
Received by:		Samples received at 4 °C		

FORMS\COC\SESGEMSR1.DOC (Revision 1)

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VS3 / CI3

SAMPLE CHAIN OF CUSTODY ME 11-16-10

Page # 2 of 3

Send Report To Beau Johnson

Company SES

Address 2811 Fairview Ave E

City, State, ZIP Seattle, WA 98102

Phone # 2063061900 Fax #

SAMPLERS (signature) AR + CCC

PROJECT NAME/NO. 01-169 2010 SSI

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth (ft)	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B25-10	B25	10	03 A-E	11/16/10	0840	Soil	5									
B25-15		15	04 A-E		0850											
B25-17.5		17.5	05 A-E		0855											
B25-20		20	06 A-E		0900											
B25-22.5		22.5	07 A-E					(NP)	DO	not	received					
B25-25	↓	25	08 A-E		0910											If there is a sample, then run (may not be one
~~B26-5~~																
B26-15	B26	15	08 A-E		1043											
B26-17.5		17.5	~~08~~ 09 A-E		1047											
B26-20		20	10 A-E		1052											
B26-22.5		22.5	11 A-E		1057											
B26-25	↓	25	12 A-E		1102											
B27-7.5	B27	27.5	13 A-E	↓	1303	↓	↓									

ANALYSES REQUESTED

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Andrew Lee	SES	11/16/10	1640
Received by:		DAVID	FedEx	4	4
Relinquished by:					
Received by:			Samples received at	4 °C	

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

011216

SAMPLE CHAIN OF CUSTODY

ME 11-16-10

VS3/CD3

Page # 3 of 3

Send Report To Drew Johnson

Company SES

Address 2811 Fairview Ave E

City, State, ZIP Seattle WA 98112

Phone # 2063061900 Fax #

SAMPLERS *(signature)* ATR FCCC

PROJECT NAME/NO. 01-169 2010551

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth (ft)	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B27-10	B27	10	14 A-E	11/16/10	1307	Soil	5		X	X						
B27-12.5	↓	12.5	15	↓	1312	↓	↓		X	X						
B27-15		15	16		1318				X	X						
B27-17.5		17.5	17		1322				X	X						
B27-20		20	18		1326				X	X						
B27-22.5		22.5	19		1330				X	X						
B27-25		25	20		1337				X	X						
B27-27.5		27.5	21		1354				X	X						
B27-30	↓	30	22	↓	1357	↓	↓		X	X						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Andrew Lee	SES	11/16/10	1640
Received by:	D D VO	FedEx	11	4
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

Friedman & Bruya, Inc. #011216 amended

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

December 7, 2010

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included is the amended report from the testing of material submitted on November 16, 2010 from the TOC_01-169_20101116 WORFDB4, F&BI 011216 project. There are 4 pages included in this report. The reported list of samples has been shortened to the samples you requested.

We apologize for the inconvenience and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU1123R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

November 23, 2010

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included are the results from the testing of material submitted on November 16, 2010 from the TOC_01-169_20101116 WORFDB4, F&BI 011216 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU1123R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 16, 2010 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20101116 WORFDB4, F&BI 011216 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
011216-01	B25-12.5
011216-02	B26-12.5
011216-03	B25-10
011216-04	B25-15
011216-05	B25-17.5
011216-06	B25-20
011216-07	B25-25
011216-08	B26-15
011216-09	B26-17.5
011216-10	B26-20
011216-11	B26-22.5
011216-12	B26-25
011216-13	B27-7.5
011216-14	B27-10
011216-15	B27-12.5
011216-16	B27-15
011216-17	B27-17.5
011216-18	B27-20
011216-19	B27-22.5
011216-20	B27-25
011216-21	B27-27.5
011216-22	B27-30

All quality control requirements were acceptable.

Date of Report: 11/23/10
Date Received: 11/16/10
Project: TOC_01-169_20101116 WORFDB4, F&BI 011216
Date Extracted: 11/16/10 and 11/17/10
Date Analyzed: 11/17/10 and 11/18/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
B25-12.5 011216-01	<0.02	<0.02	<0.02	<0.06	<2	81
B26-12.5 011216-02	<0.02	<0.02	<0.02	<0.06	<2	77
B27-12.5 011216-15	0.089	<0.02	0.053	<0.06	3.0	104
B27-15 011216-16 1/50	<1	3.0	6.1	42	520	ip
B27-25 011216-20	<0.02	0.077	<0.02	0.13	<2	84
B27-30 011216-22	<0.02	<0.02	<0.02	<0.06	<2	84
Method Blank 00-1892 MB	<0.02	<0.02	<0.02	<0.06	<2	85

Date of Report: 11/23/10
Date Received: 11/16/10
Project: TOC_01-169_20101116 WORFDB4, F&BI 011216

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 011215-02 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	0.068 a	0.13	60 a
Toluene	mg/kg (ppm)	0.053 a	0.082 a	43 a
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	0.069 a	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	86	69-120
Toluene	mg/kg (ppm)	0.5	85	70-117
Ethylbenzene	mg/kg (ppm)	0.5	83	65-123
Xylenes	mg/kg (ppm)	1.5	85	66-120
Gasoline	mg/kg (ppm)	20	85	71-131

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

011216

VS3/CI3

SAMPLE CHAIN OF CUSTODY ME 11-16-10

Page # 1 of ~~2~~ 3

Send Report To Beau Johnson

Company Sand Earth Strategies

Address 2811 Fairview Ave E

City, State, ZIP Seattle, WA 98102

Phone # 206 306 1900 Fax #

SAMPLERS (signature) AR + CCC

PROJECT NAME/NO. C1-169 2010 SSI

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ ~~RUSH~~ asap

Rush charges authorized by: Beau Johnson

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B25-12.5	B25	12.5'	01 A-G	11/16/10	0848	Soil	~~6~~ 5		X	X						
B26-12.5	B26	12.5'	02 A-E	11/16/10	1040	Soil	5		X	X						

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Andrew Leaf	SES	11/16/10	1640
Received by:	Doug	FeBI	11	11
Relinquished by:				
Received by:		Samples received at 4 °C		

FORMS\COC\SESGEMSR1.DOC (Revision 1)

011216

VS3 / CI3

SAMPLE CHAIN OF CUSTODY ME 11-16-10

Page # 2 of 3

Send Report To Beau Johnson

Company SES

Address 2811 Fairview Ave E

City, State, ZIP Seattle, WA 98102

Phone # 2063061900 Fax #

SAMPLERS (signature) AR + CCC

PROJECT NAME/NO. 01-169 2010 SSI

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth (ft)	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B25-10	B25	10	03 A-E	11/16/10	0840	Soil	5									
B25-15		15	04 A-E		0850											
B25-17.5		17.5	05 A-E		0855											
B25-20		20	06 A-E		0900											
B25-22.5		22.5	07 A-E					(NP)	DO	not	received					
B25-25	↓	25	08 A-E		0910											If there is a sample, then run (may not be one
~~B26-5~~																
B26-15	B26	15	08 A-E		1043											
B26-17.5		17.5	~~08~~ 09 A-E		1047											
B26-20		20	10 A-E		1052											
B26-22.5		22.5	11 A-E		1057											
B26-25	↓	25	12 A-E		1102											
B27-7.5	B27	27.5	13 A-E	↓	1303	↓	↓									

ANALYSES REQUESTED

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Andrew Lee	SES	11/16/10	1640
Received by:		DAVID	FedEx	4	4
Relinquished by:					
Received by:			Samples received at	4 °C	

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

011216

SAMPLE CHAIN OF CUSTODY

ME 11-16-10

VS3/CD3

Page # 3 of 3

Send Report To Drew Johnson

Company SES

Address 2811 Fairview Ave E

City, State, ZIP Seattle WA 98112

Phone # 2063061900 Fax #

SAMPLERS *(signature)* ATR FCCC

PROJECT NAME/NO. 01-169 2010551

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth (ft)	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B27-10	B27	10	14 A-E	11/16/10	1307	Soil	5		X	X						
B27-12.5	↓	12.5	15	↓	1312	↓	↓		X	X						
B27-15		15	16		1318				X	X						
B27-17.5		17.5	17		1322				X	X						
B27-20		20	18		1326				X	X						
B27-22.5		22.5	19		1330				X	X						
B27-25		25	20		1337				X	X						
B27-27.5		27.5	21		1354				X	X						
B27-30	↓	30	22	↓	1357	↓	↓		X	X						

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Andrew Lee	SES	11/16/10	1640
Received by:	D D VO	FedEx	11	4
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

Friedman & Bruya, Inc. #012089 amended

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

December 21, 2010

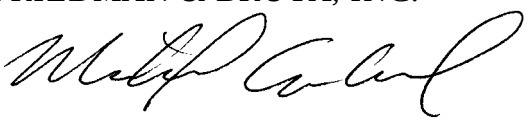
Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included are the amended results from the testing of material submitted on December 7, 2010 from the TOC_01-169_20101207 WORFDB4, F&BI 012089 project. Per your request, the project ID has been updated. We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson, Chuck Cacek
SOU1215R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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Charlene Morrow, M.S.
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3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

December 15, 2010

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included are the results from the testing of material submitted on December 7, 2010 from the TOC_01-169_20101207 WORFDB4, F&BI 012089 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU1215R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 7, 2010 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20101207 WORFDB4, F&BI 012089 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
012089-01	B28-10'
012089-02	B28-12.5'
012089-03	B28-15'
012089-04	B28-17.5'
012089-05	B28-20'
012089-06	B28-22.5'
012089-07	B28-25'
012089-08	B29-10'
012089-09	B29-12.5'
012089-10	B29-15'
012089-11	B29-17.5'
012089-12	B29-20'
012089-13	B29-22.5'
012089-14	B29-25'
012089-15	B30-10'
012089-16	B30-12.5'
012089-17	B30-15'
012089-18	B30-17.5'
012089-19	B30-20'
012089-20	B30-22.5'
012089-21	B30-25'

All quality control requirements were acceptable.

Date of Report: 12/15/10
Date Received: 12/07/10
Project: TOC_01-169_20101207 WORFDB4, F&BI 012089
Date Extracted: 12/09/10
Date Analyzed: 12/09/10

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-132)
B28-12.5' 012089-02	<0.02	<0.02	<0.02	<0.06	<2	81
B28-15' 012089-03	<0.02	<0.02	<0.02	<0.06	<2	81
B28-17.5' 012089-04	<0.02	<0.02	<0.02	<0.06	<2	89
B29-15' 012089-10	<0.02	<0.02	<0.02	<0.06	<2	89
B29-17.5' 012089-11	<0.02	<0.02	<0.02	<0.06	<2	90
B29-20' 012089-12	<0.02	<0.02	<0.02	<0.06	<2	85
B30-15' 012089-17	<0.02	<0.02	<0.02	<0.06	<2	92
B30-17.5' 012089-18	<0.02	<0.02	<0.02	<0.06	<2	84
B30-20' 012089-19	<0.02	<0.02	<0.02	<0.06	<2	82
Method Blank 00-2008 MB	<0.02	<0.02	<0.02	<0.06	<2	80

Date of Report: 12/15/10
Date Received: 12/07/10
Project: TOC_01-169_20101207 WORFDB4, F&BI 012089

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 012110-04 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	0.07	0.05	39 a
Toluene	mg/kg (ppm)	0.11	0.06	53 a
Ethylbenzene	mg/kg (ppm)	0.03	<0.02	nm
Xylenes	mg/kg (ppm)	0.12	0.07	57 a
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	85	69-120
Toluene	mg/kg (ppm)	0.5	78	70-117
Ethylbenzene	mg/kg (ppm)	0.5	79	65-123
Xylenes	mg/kg (ppm)	1.5	81	66-120
Gasoline	mg/kg (ppm)	20	85	71-131

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

012089

SAMPLE CHAIN OF CUSTODY

ME 12/7/10 VS2/G04

Send Report To Beau Johnson
Company SES
Address 2811 Fairview Ave E
City, State, ZIP Seattle WA 98102
Phone # 206 306 1900 Fax #

SAMPLERS (signature) ATL & CCC
PROJECT NAME/NO TOC Holdings Everett 0440-002-10
REMARKS * 01-169 per Chuck Cacek 12/21/10 (initials)
PO #
GEMS Y / N

Page # 1 of 2
TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

ANALYSES REQUESTED

Sample ID	Sample Location	Sample Depth ft	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
B28-10'	B28	10	01A-E	0910	12/6/10	Soil	5									
B28-12.5'	↓	12.5	02A-E	0915	↓	↓	↓		X	X						
B28-15'	↓	15	03A-E	0922	↓	↓	↓		X	X						
B28-17.5'	↓	17.5	04A-E	0927	↓	↓	↓		X	X						
B28-20'	↓	20	05A-E	0933	↓	↓	↓									
B28-22.5'	↓	22.5	06A-E	0941	↓	↓	↓									
B28-25'	↓	25	07A-E	0950	↓	↓	↓									
B29-10'	B29	10	08A-E	1115	↓	↓	↓									
B29-12.5'	↓	12.5	09A-E	1119	↓	↓	↓									
B29-15'	↓	15	10A-E	1128	↓	↓	↓									
B29-17.5'	↓	17.5	11A-E	1135	↓	↓	↓		X	X						
B29-20'	↓	20	12A-E	1140	↓	↓	↓		X	X						
B29-22.5'	↓	22.5	13A-E	1147	↓	↓	↓		X	X						

Samples received at 5 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by	(signature)	Andrew Leaf	SES	12/7/10	
Received by	(signature)	DOC	Hampton	12/7/10	3pm
Relinquished by					
Received by	(signature)	Nhan Phan	FeBI	12/7/10	1500

FORMS\COC\SESGEMSR1.DOC (Revision 1)

012089

SAMPLE CHAIN OF CUSTODY

ME 12/7/10 VS2/C04

Page 2 of 2

Send Report To Bea Johnson

Company SES

Address 2811 Fairview Ave E

City, State, ZIP Seattle, WA 98102

Phone #2063061900 Fax #

SAMPLERS (signature) [signature]

PROJECT NAME/NO. Toc Holdings (.. Invest 0440-002-10

PO#

REMARKS #01-169 per Chuck Cacek 12/2/10 (2)

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID (Boring ID - Depth)	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-D ext	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Notes
B29-25'	14A-E	12/6/10	1152	Soil	5							
B30-10'	15A-E	"	1325	"	"							
B30-12.5'	16A-E	"	1338	"	"							
B30-15'	17A-E	"	1345	"	"		X	X				
B30-17.5'	18A-E	"	1354	"	"		X	X				
B30-20'	19A-E	"	1401	"	"		X	X				
B30-22.5'	20A-E	"	1406	"	"							
B30-25'	21A-E	"	1413	"	"							
		↓		↓	↓							

ANALYSES REQUESTED

Samples received at 5 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Andrew Lafferty	SES	12/7/10	
Received by: [signature]	[illegible]	FRIEDMAN & BRUYA	12/7/10	1:31 PM
Relinquished by:				
Received by: [signature]	Thao Phan	FEBI	12/7/10	1500

Friedman & Bruya, Inc. #106220

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

June 27, 2011

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included are the results from the testing of material submitted on June 15, 2011 from the TOC_01-169_20110615 WORFDB5, F&BI 106220 project. There are 20 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU0627R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 15, 2011 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20110615 WORFDB5, F&BI 106220 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
106220-01	B31-05
106220-02	B31-09
106220-03	B31-12.5
106220-04	B31-15
106220-05	B31-20
106220-06	B31-25
106220-07	B31-27.5
106220-08	B31-30
106220-09	B31-composite
106220-10	B32-05
106220-11	B32-10
106220-12	B32-12.5
106220-13	B32-15
106220-14	B32-20
106220-15	B32-25
106220-16	B32-composite
106220-17	B33-05
106220-18	B33-07.5
106220-19	B33-10
106220-20	B33-12.5
106220-21	B33-15
106220-22	B33-17.5
106220-23	B33-22.5
106220-24	B33-25
106220-25	B33-composite

All quality control requirements were acceptable.

Date of Report: 06/27/11
Date Received: 06/15/11
Project: TOC_01-169_20110615 WORFDB5, F&BI 106220
Date Extracted: 06/16/11
Date Analyzed: 06/16/11

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
B31-20 106220-05	6.2	111
B33-17.5 106220-22 1/50	3,300	ip
Method Blank 01-1094 MB	<2	100

Date of Report: 06/27/11
Date Received: 06/15/11
Project: TOC_01-169_20110615 WORFDB5, F&BI 106220
Date Extracted: 06/16/11
Date Analyzed: 06/16/11

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
B31-27.5 106220-07	0.083	0.45	0.066	0.43	3.8	107
B31-30 106220-08	0.026	0.20	0.045	0.22	<2	105
B32-20 106220-14	0.048	<0.02	0.080	0.14	<2	106
B32-25 106220-15	<0.02	<0.02	<0.02	0.073	<2	106
B33-22.5 106220-23	0.024	0.16	0.095	0.51	6.2	110
B33-25 106220-24	0.024	0.093	0.031	0.18	<2	104
Method Blank 01-1094 MB	<0.02	<0.02	<0.02	<0.06	<2	103

Date of Report: 06/27/11
Date Received: 06/15/11
Project: TOC_01-169_20110615 WORFDB5, F&BI 106220
Date Extracted: 06/16/11
Date Analyzed: 06/16/11

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
B31-20 106220-05	<50	<250	111
B32-15 106220-13	<50	<250	115
B33-17.5 106220-22	<50	<250	112
Method Blank 01-1098 MB	<50	<250	110

Analysis For Total Metals By EPA Method 200.8

Client ID:	B31-20	Client:	SoundEarth Strategies
Date Received:	06/15/11	Project:	TOC_01-169_20110615 WORFDB5
Date Extracted:	06/16/11	Lab ID:	106220-05
Date Analyzed:	06/16/11	Data File:	106220-05.031
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	93	60	125
Indium	83	60	125
Holmium	90	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	8.56
Arsenic	1.31
Selenium	<1
Silver	<1
Cadmium	<1
Barium	30.6
Lead	1.69

Analysis For Total Metals By EPA Method 200.8

Client ID:	B32-15	Client:	SoundEarth Strategies
Date Received:	06/15/11	Project:	TOC_01-169_20110615 WORFDB5
Date Extracted:	06/16/11	Lab ID:	106220-13
Date Analyzed:	06/16/11	Data File:	106220-13.032
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	80	60	125
Holmium	85	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	33.0
Arsenic	19.6
Selenium	<1
Silver	<1
Cadmium	2.31
Barium	98.2
Lead	86.3

Analysis For Total Metals By EPA Method 200.8

Client ID:	B33-17.5	Client:	SoundEarth Strategies
Date Received:	06/15/11	Project:	TOC_01-169_20110615 WORFDB5
Date Extracted:	06/16/11	Lab ID:	106220-22
Date Analyzed:	06/16/11	Data File:	106220-22.033
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	98	60	125
Indium	78	60	125
Holmium	86	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	36.5
Arsenic	10.9
Selenium	<1
Silver	<1
Cadmium	<1
Barium	98.4
Lead	6.04

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	TOC_01-169_20110615 WORFDB5
Date Extracted:	06/16/11	Lab ID:	I1-405 mb
Date Analyzed:	06/16/11	Data File:	I1-405 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	85	60	125
Indium	86	60	125
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Date of Report: 06/27/11
Date Received: 06/15/11
Project: TOC_01-169_20110615 WORFDB5, F&BI 106220
Date Extracted: 06/16/11
Date Analyzed: 06/16/11

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
B31-20 106220-05	<0.1
B32-15 106220-13	<0.1
B33-17.5 106220-22	<0.1
Method Blank	<0.1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B31-20	Client:	SoundEarth Strategies
Date Received:	06/15/11	Project:	TOC_01-169_20110615 WORFDB5
Date Extracted:	06/16/11	Lab ID:	106220-05
Date Analyzed:	06/16/11	Data File:	061625.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	42	158
Toluene-d8	103	42	159
4-Bromofluorobenzene	101	36	160

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
t-Butyl alcohol (TBA)	<2.5
Methyl t-butyl ether (MTBE)	<0.05
Ethyl t-butyl ether (ETBE)	<0.05
t-Amyl methyl ether (TAME)	<0.05
Diisopropyl ether (DIPE)	<0.05
Benzene	0.094
Toluene	0.59
Ethylbenzene	0.17
m,p-Xylene	0.49
o-Xylene	0.33
Naphthalene	0.11

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B32-15	Client:	SoundEarth Strategies
Date Received:	06/15/11	Project:	TOC_01-169_20110615 WORFDB5
Date Extracted:	06/16/11	Lab ID:	106220-13
Date Analyzed:	06/16/11	Data File:	061626.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	42	158
Toluene-d8	99	42	159
4-Bromofluorobenzene	101	36	160

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
t-Butyl alcohol (TBA)	<2.5
Methyl t-butyl ether (MTBE)	<0.05
Ethyl t-butyl ether (ETBE)	<0.05
t-Amyl methyl ether (TAME)	<0.05
Diisopropyl ether (DIPE)	<0.05
Benzene	0.056
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B33-17.5	Client:	SoundEarth Strategies
Date Received:	06/15/11	Project:	TOC_01-169_20110615 WORFDB5
Date Extracted:	06/16/11	Lab ID:	106220-22
Date Analyzed:	06/16/11	Data File:	061627.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	80	42	158
Toluene-d8	94	42	159
4-Bromofluorobenzene	109	36	160

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
t-Butyl alcohol (TBA)	<2.5
Methyl t-butyl ether (MTBE)	<0.05
Ethyl t-butyl ether (ETBE)	<0.05
t-Amyl methyl ether (TAME)	<0.05
Diisopropyl ether (DIPE)	<0.05
Benzene	2.4
Toluene	57 ve
Ethylbenzene	33 ve
m,p-Xylene	130 ve
o-Xylene	56 ve
Naphthalene	12 ve

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B33-17.5	Client:	SoundEarth Strategies
Date Received:	06/15/11	Project:	TOC_01-169_20110615 WORFDB5
Date Extracted:	06/16/11	Lab ID:	106220-22 1/100
Date Analyzed:	06/21/11	Data File:	062114.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	62	142
Toluene-d8	100	55	145
4-Bromofluorobenzene	105	65	139

Compounds:	Concentration mg/kg (ppm)
Ethanol	<5,000
t-Butyl alcohol (TBA)	<250
Methyl t-butyl ether (MTBE)	<5
Ethyl t-butyl ether (ETBE)	<5
t-Amyl methyl ether (TAME)	<5
Diisopropyl ether (DIPE)	<5
Benzene	4.3
Toluene	83
Ethylbenzene	48
m,p-Xylene	200
o-Xylene	76
Naphthalene	17

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	TOC_01-169_20110615 WORFDB5
Date Extracted:	06/16/11	Lab ID:	01-1008 mb2
Date Analyzed:	06/16/11	Data File:	061617.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	42	158
Toluene-d8	93	42	159
4-Bromofluorobenzene	93	36	160

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
t-Butyl alcohol (TBA)	<2.5
Methyl t-butyl ether (MTBE)	<0.05
Ethyl t-butyl ether (ETBE)	<0.05
t-Amyl methyl ether (TAME)	<0.05
Diisopropyl ether (DIPE)	<0.05
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Date of Report: 06/27/11
Date Received: 06/15/11
Project: TOC_01-169_20110615 WORFDB5, F&BI 106220

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 106192-02 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	82	69-120
Toluene	mg/kg (ppm)	0.5	114	70-117
Ethylbenzene	mg/kg (ppm)	0.5	120	65-123
Xylenes	mg/kg (ppm)	1.5	112	66-120
Gasoline	mg/kg (ppm)	20	105	71-131

Date of Report: 06/27/11
Date Received: 06/15/11
Project: TOC_01-169_20110615 WORFDB5, F&BI 106220

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 106220-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	117	101	73-135	15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	108	74-139

Date of Report: 06/27/11
Date Received: 06/15/11
Project: TOC_01-169_20110615 WORFDB5, F&BI 106220

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 106192-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/kg (ppm)	50	10.7	105 b	104 b	51-132	1 b
Arsenic	mg/kg (ppm)	10	1.22	97	98	44-151	1
Selenium	mg/kg (ppm)	5	<1	94	91	52-128	3
Silver	mg/kg (ppm)	10	<1	102	104	69-125	2
Cadmium	mg/kg (ppm)	10	<1	104	105	83-120	1
Barium	mg/kg (ppm)	50	23.1	101 b	107 b	47-147	6 b
Lead	mg/kg (ppm)	50	2.12	109	108	65-126	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	111	79-125
Arsenic	mg/kg (ppm)	10	103	80-120
Selenium	mg/kg (ppm)	5	104	81-121
Silver	mg/kg (ppm)	10	110	84-117
Cadmium	mg/kg (ppm)	10	109	89-116
Barium	mg/kg (ppm)	50	109	88-113
Lead	mg/kg (ppm)	50	111	81-120

Date of Report: 06/27/11
Date Received: 06/15/11
Project: TOC_01-169_20110615 WORFDB5, F&BI 106220

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 106192-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.1	101	96	45-162	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	99	63-144

Date of Report: 06/27/11
Date Received: 06/15/11
Project: TOC_01-169_20110615 WORFDB5, F&BI 106220

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 106195-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Ethanol	mg/kg (ppm)	125	<50	57	10-169
t-Butyl alcohol (TBA)	mg/kg (ppm)	125	<2.5	72	28-154
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	63	39-139
Diisopropyl ether (DIPE)	mg/kg (ppm)	2.5	<0.05	64	44-140
Ethyl t-butyl ether (ETBE)	mg/kg (ppm)	2.5	<0.05	64	41-141
t-Amyl methyl ether (TAME)	mg/kg (ppm)	2.5	<0.05	69	43-139
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	63	38-116
Benzene	mg/kg (ppm)	2.5	<0.03	59	33-113
Toluene	mg/kg (ppm)	2.5	<0.05	60	38-139
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	66	44-139
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	62	38-120
m,p-Xylene	mg/kg (ppm)	5	<0.1	62	37-122
o-Xylene	mg/kg (ppm)	2.5	<0.05	65	39-121
Naphthalene	mg/kg (ppm)	2.5	<0.05	59	12-168

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Ethanol	mg/kg (ppm)	125	47	50	10-188	6
t-Butyl alcohol (TBA)	mg/kg (ppm)	125	80	81	42-149	1
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	81	89	62-124	9
Diisopropyl ether (DIPE)	mg/kg (ppm)	2.5	88	91	68-116	3
Ethyl t-butyl ether (ETBE)	mg/kg (ppm)	2.5	81	93	67-125	14
t-Amyl methyl ether (TAME)	mg/kg (ppm)	2.5	87	95	67-125	9
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	80	83	60-124	4
Benzene	mg/kg (ppm)	2.5	77	84	69-122	9
Toluene	mg/kg (ppm)	2.5	80	84	72-122	5
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	87	91	72-121	4
Ethylbenzene	mg/kg (ppm)	2.5	82	87	72-130	6
m,p-Xylene	mg/kg (ppm)	5	81	87	72-131	7
o-Xylene	mg/kg (ppm)	2.5	86	91	71-129	6
Naphthalene	mg/kg (ppm)	2.5	80	92	60-125	14

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

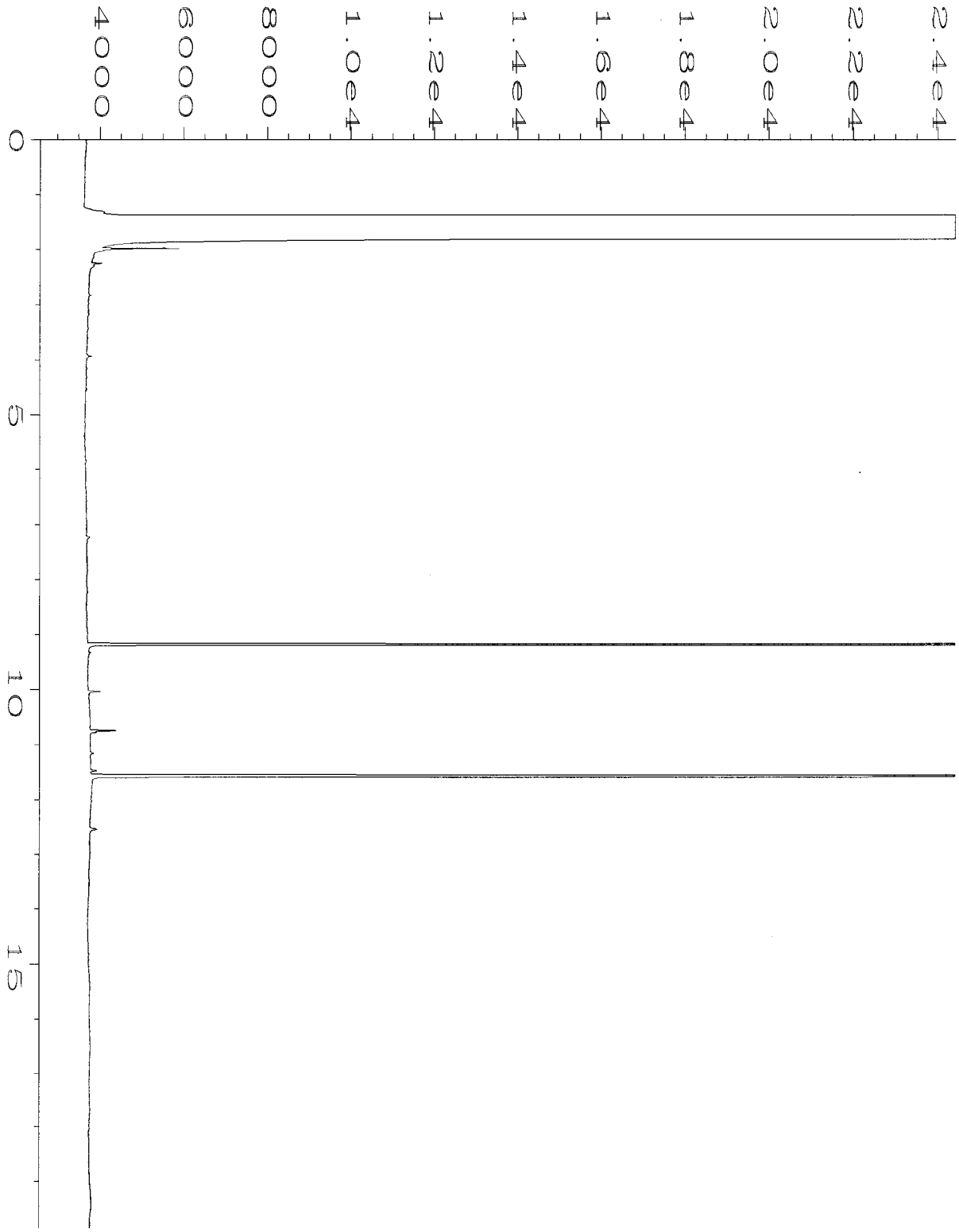
pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

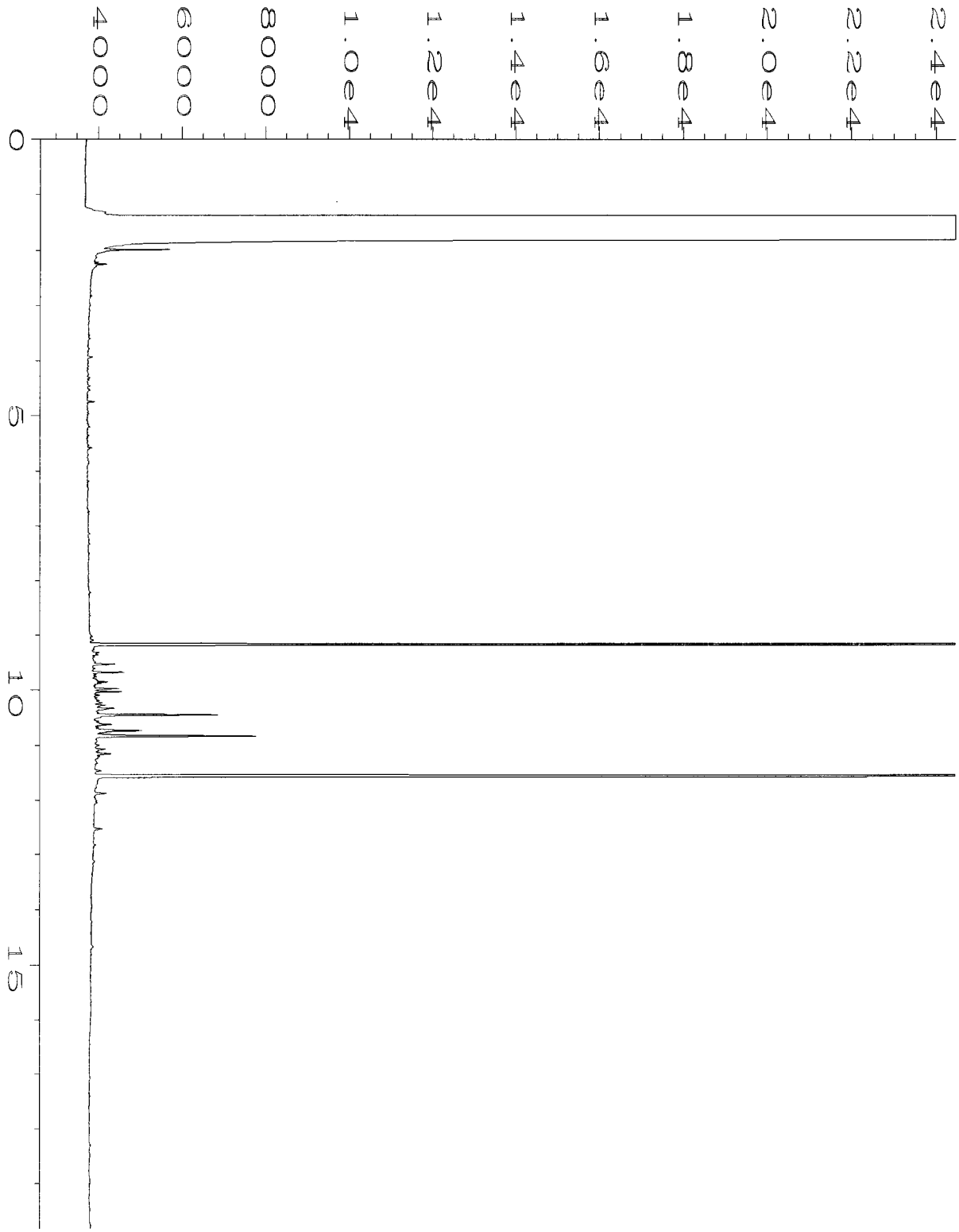
vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



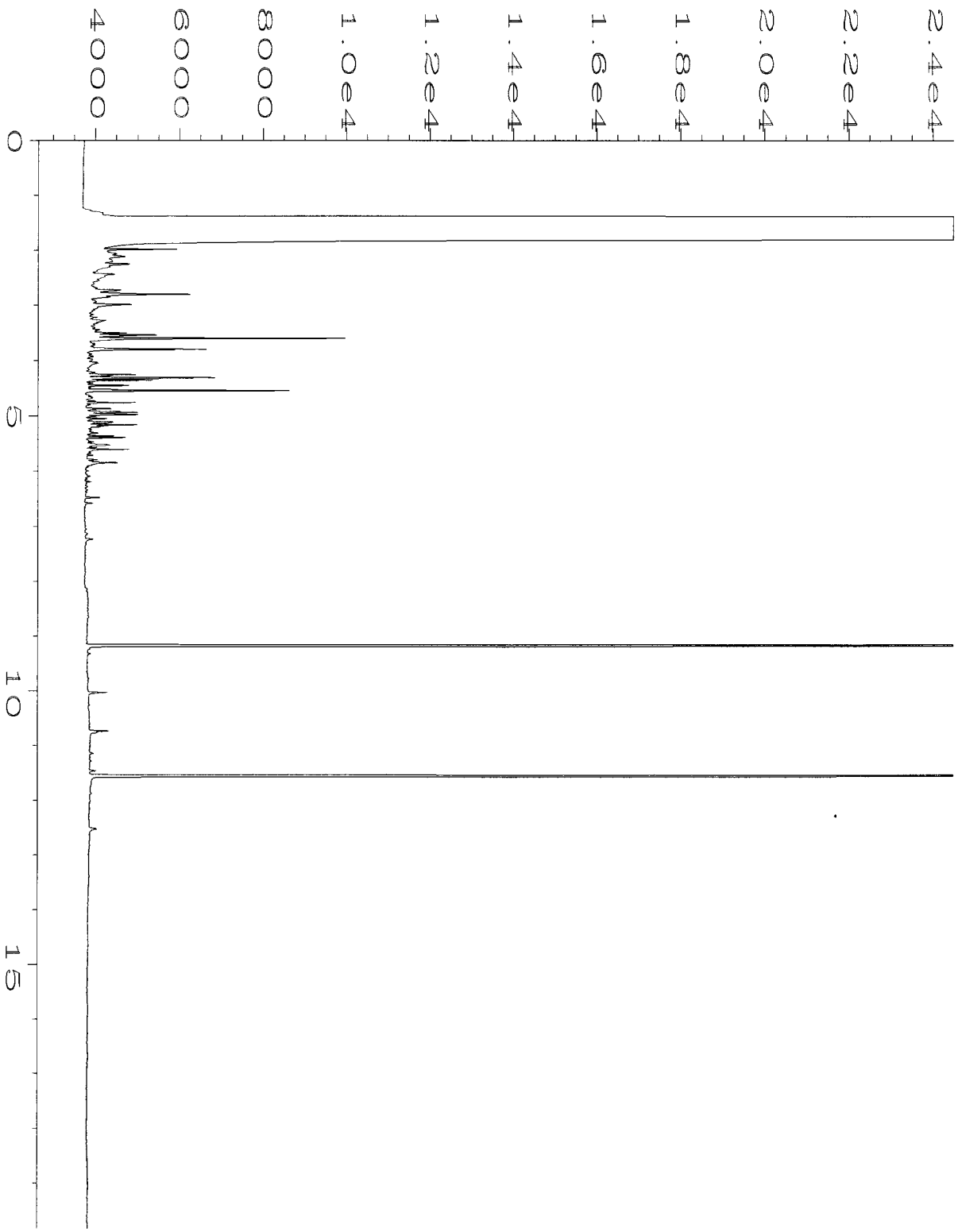
Data File Name : C:\HPCHEM\4\DATA\06-16-11\015F0301.D
Operator : ML
Instrument : GC#4
Sample Name : 106220-05
Run Time Bar Code:
Acquired on : 16 Jun 11 02:16 PM
Report Created on: 17 Jun 11 09:20 AM

Page Number : 1
Vial Number : 15
Injection Number : 1
Sequence Line : 3
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



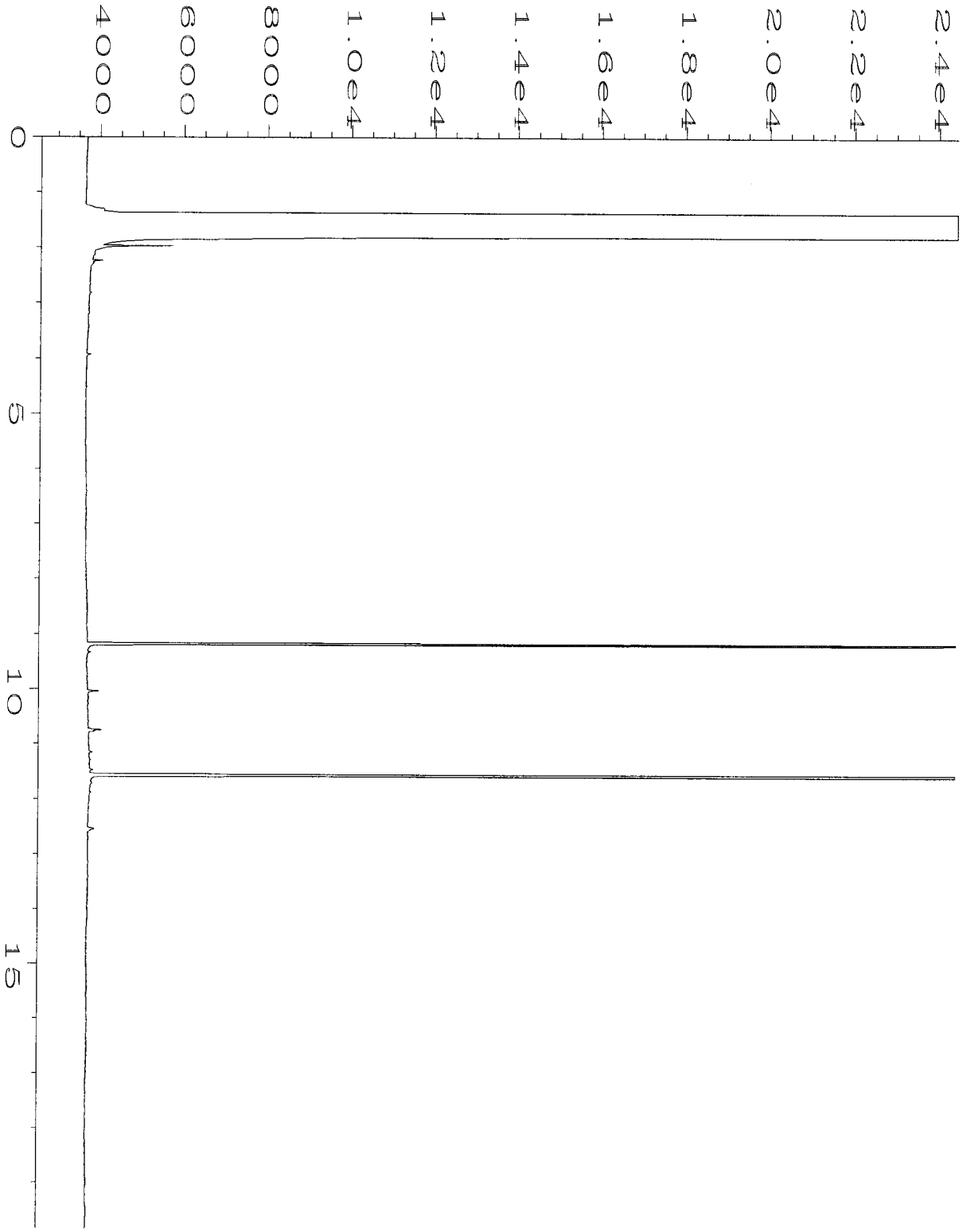
Data File Name : C:\HPCHEM\4\DATA\06-16-11\016F0301.D
Operator : ML
Instrument : GC#4
Sample Name : 106220-13
Run Time Bar Code:
Acquired on : 16 Jun 11 02:43 PM
Report Created on: 17 Jun 11 09:20 AM

Page Number : 1
Vial Number : 16
Injection Number : 1
Sequence Line : 3
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



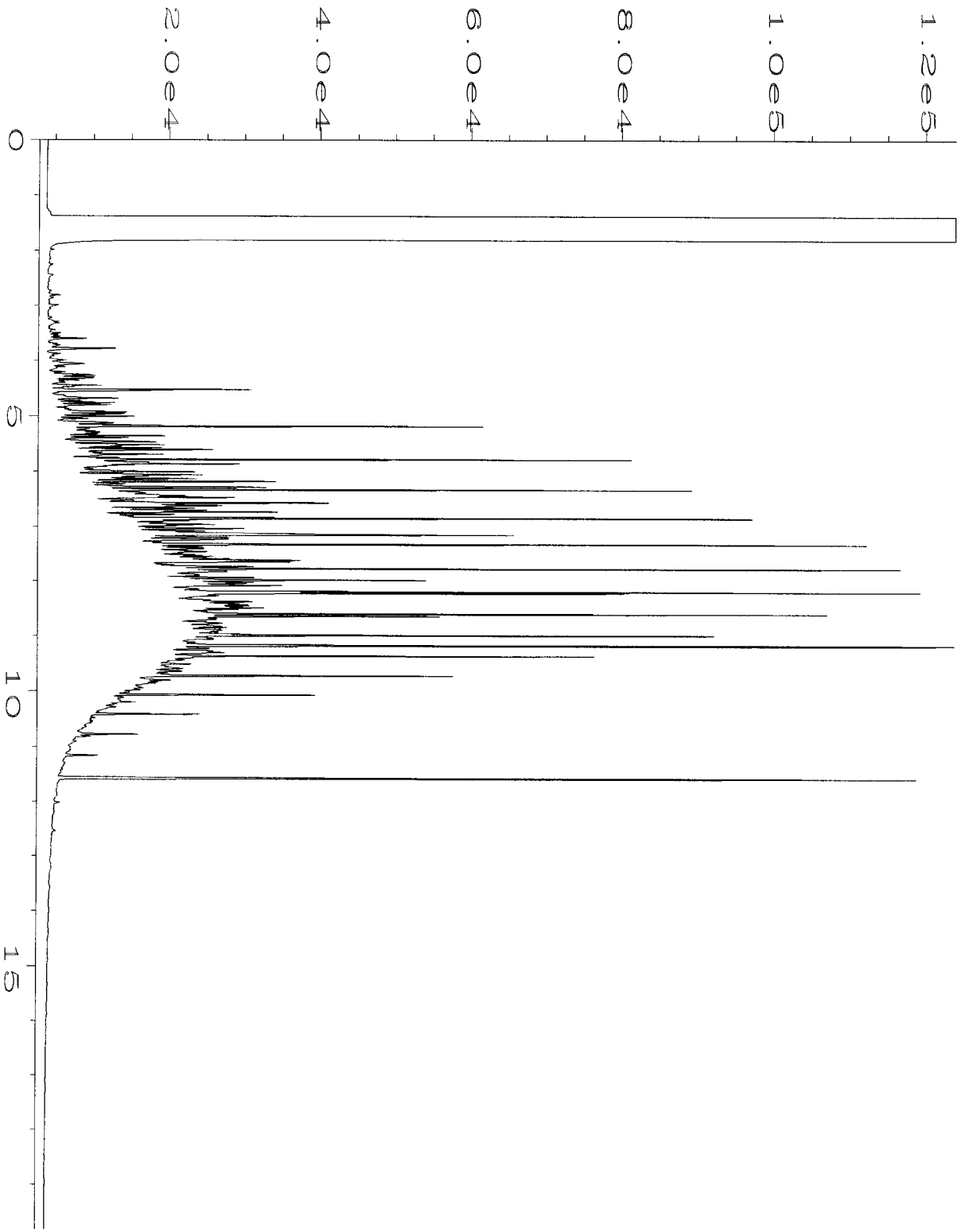
Data File Name : C:\HPCHEM\4\DATA\06-16-11\017F0301.D
Operator : ML
Instrument : GC#4
Sample Name : 106220-22
Run Time Bar Code:
Acquired on : 16 Jun 11 03:10 PM
Report Created on: 17 Jun 11 09:20 AM

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 3
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



Data File Name : C:\HPCHEM\4\DATA\06-16-11\011F0301.D
Operator : ML
Instrument : GC#4
Sample Name : 01-1098 mb
Run Time Bar Code:
Acquired on : 16 Jun 11 12:29 PM
Report Created on: 17 Jun 11 09:20 AM

Page Number : 1
Vial Number : 11
Injection Number : 1
Sequence Line : 3
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



Data File Name	: C:\HPCHEM\4\DATA\06-16-11\003F0201.D		
Operator	: ML	Page Number	: 1
Instrument	: GC#4	Vial Number	: 3
Sample Name	: 500 WADF 35-58C	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 2
Acquired on	: 16 Jun 11 09:33 AM	Instrument Method	: TPHD.MTH
Report Created on	: 17 Jun 11 09:19 AM	Analysis Method	: TPHD.MTH

106220

SAMPLE CHAIN OF CUSTODY

ME 06/15/11 VS2/C05

Send Report To Bean Johnson

Company SES

Address 2811 Fairview ave East Suite 2000

City, State, ZIP Seattle WA 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO. TJC 01-169

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☑ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals	BTEX + oxygenates by 8260C		Notes
B31-05	B31	05	01 A E	6-14-11	0905	Soil	5									X-analyzeas marked per BJ 6/15/11 MR ~~HOLD~~
B31-09		09	02		0910		5									
B31-12.5		12.5	03		0915		5									
B31-15		15	04		0925		5									
B31-20		20	05		0935		5	X	X				X	X		
B31-25		25	06		0945		5									
B31-27.5		27.5	07		1000		5		X	X						
B31-30		30	08		1010		5		X	X						
B31-composite	B31		09		1035		1									
B32-05	B32	05	10 A-E		1235		5									
B32-10		10	11 A E		1245		5									
B32-12.5		12.5	12 A-E		1250		5									
B32-15		15	13 A-E		1255		5	X					X	X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	WILL CAMARGA	SES	6/15/11	1520
Received by:	Nhan Phan	FEBT	6/15/11	1520
Relinquished by:				
Received by:		Samples received at 3 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

106220

SAMPLE CHAIN OF CUSTODY ME 06/15/11 VS2/C05

Send Report To

Company See Page 1

Address

City, State, ZIP

Phone # Fax #

SAMPLERS (signature) [signature]

PROJECT NAME/NO. Toc 01-169

PO #

REMARKS

GEMS Y / N

Page # 2 of 2

TURNAROUND TIME
- ☑ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals	BTEX+Oxygenates		Notes
B32-20	B32	20	14 A-E	6-14-11	1305	Soil	5		X	X						~~Hold~~
B32-25		25	15		1320		5		X	X						
B32-Composite			16		1330		1									
B33-05	B33	05	17 A-E		1510		5									
B33-07.5		07.5	18		1513		5									
B33-10		10	19		1515		5									
B33-12.5		12.5	20		1520		5									
B33-15		15	21		1525		5									
B33-17.5		17.5	22		1535		5	X	X				X	X		
B33-22.5		22.5	23		1550		5		X	X						
B33-25		25	24		1600		5		X	X						
B33-Composite			25		1615		1									

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Will Camarda	SES	6/15/11	1520
Received by: [signature]	Nhan Phan	FeBI	6/15/11	1520
Relinquished by:				
Received by:				

Samples received at 3 °C

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Friedman & Bruya, Inc. #106256 amended

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

July 1, 2011

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included is the amended report from the testing of material submitted on June 17, 2011 from the TOC_01-169_20110617 WORFDB5, F&BI 106256 project. Per your request, naphthalene was added to the report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU0623R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

June 23, 2011

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included are the results from the testing of material submitted on June 17, 2011 from the TOC_01-169_20110617 WORFDB5, F&BI 106256 project. There are 17 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU0623R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 17, 2011 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20110617 WORFDB5, F&BI 106256 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
106256-01	B34-05
106256-02	B34-07.5
106256-03	B34-12.5
106256-04	B34-15
106256-05	B35-05
106256-06	B35-07.5
106256-07	B35-10
106256-08	B35-12.5
106256-09	B35-15
106256-10	B36-05
106256-11	B36-07.5
106256-12	B36-10
106256-13	B36-12.5
106256-14	B36-15
106256-15	B36-17.5
106256-16	B36-20
106256-17	B36-22.5
106256-18	B36-25
106256-19	B34-Composite
106256-20	B35-Composite
106256-21	B36-Composite

All quality control requirements were acceptable.

Date of Report: 06/23/11
Date Received: 06/17/11
Project: TOC_01-169_20110617 WORFDB5, F&BI 106256
Date Extracted: 06/20/11
Date Analyzed: 06/20/11 and 06/21/11

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
B34-05 106256-01	6.2	107
B36-15 106256-14 1/5	66	110
Method Blank 01-1111 MB	<2	102

Date of Report: 06/23/11
Date Received: 06/17/11
Project: TOC_01-169_20110617 WORFDB5, F&BI 106256
Date Extracted: 06/20/11
Date Analyzed: 06/20/11 and 06/21/11

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-132)
B34-12.5 106256-03	0.051	<0.02	<0.02	0.075	14	100
B34-15 106256-04	<0.02	<0.02	<0.02	<0.06	<2	100
B35-07.5 106256-06	<0.02	<0.02	<0.02	<0.06	<2	103
B35-12.5 106256-08	0.032	<0.02	<0.02	<0.06	<2	102
B35-15 106256-09	<0.02	<0.02	<0.02	<0.06	<2	105
B36-12.5 106256-13	<0.02	<0.02	<0.02	<0.06	<2	103
B36-25 106256-18	0.071	0.19	0.053	0.30	3.6	103
Method Blank 01-1111 MB	<0.02	<0.02	<0.02	<0.06	<2	100

Date of Report: 06/23/11
Date Received: 06/17/11
Project: TOC_01-169_20110617 WORFDB5, F&BI 106256
Date Extracted: 06/20/11
Date Analyzed: 06/20/11

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
B34-05 106256-01	<50	<250	85
B36-15 106256-14	<50	<250	83
Method Blank 01-1108 MB	<50	<250	83

Analysis For Total Metals By EPA Method 200.8

Client ID:	B34-05	Client:	SoundEarth Strategies
Date Received:	06/17/11	Project:	TOC_01-169_20110617 WORFDB5
Date Extracted:	06/20/11	Lab ID:	106256-01
Date Analyzed:	06/20/11	Data File:	106256-01.021
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	89	60	125
Indium	79	60	125
Holmium	83	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	14.9
Arsenic	17.4
Selenium	<1
Silver	<1
Cadmium	<1
Barium	55.9
Lead	11.6

Analysis For Total Metals By EPA Method 200.8

Client ID:	B36-15	Client:	SoundEarth Strategies
Date Received:	06/17/11	Project:	TOC_01-169_20110617 WORFDB5
Date Extracted:	06/20/11	Lab ID:	106256-14
Date Analyzed:	06/20/11	Data File:	106256-14.022
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125
Indium	82	60	125
Holmium	85	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	32.0
Arsenic	5.73
Selenium	<1
Silver	<1
Cadmium	<1
Barium	82.5
Lead	4.68

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	TOC_01-169_20110617 WORFDB5
Date Extracted:	06/20/11	Lab ID:	I1-415 mb
Date Analyzed:	06/20/11	Data File:	I1-415 mb.009
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	84	60	125
Indium	83	60	125
Holmium	86	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Date of Report: 06/23/11
Date Received: 06/17/11
Project: TOC_01-169_20110617 WORFDB5, F&BI 106256
Date Extracted: 06/20/11
Date Analyzed: 06/20/11

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
B34-05 106256-01	<0.1
B36-15 106256-14	<0.1
Method Blank	<0.1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B34-05	Client:	SoundEarth Strategies
Date Received:	06/17/11	Project:	TOC_01-169_20110617 WORFDB5
Date Extracted:	06/20/11	Lab ID:	106256-01
Date Analyzed:	06/21/11	Data File:	062035.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	103	65	139

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
t-Butyl alcohol (TBA)	<2.5
Methyl t-butyl ether (MTBE)	<0.05
Ethyl t-butyl ether (ETBE)	<0.05
t-Amyl methyl ether (TAME)	<0.05
Diisopropyl ether (DIPE)	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,2-Dibromoethane (EDB)	<0.05
Benzene	0.038
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	0.45
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B36-15	Client:	SoundEarth Strategies
Date Received:	06/17/11	Project:	TOC_01-169_20110617 WORFDB5
Date Extracted:	06/20/11	Lab ID:	106256-14
Date Analyzed:	06/21/11	Data File:	062036.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	101	65	139

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
t-Butyl alcohol (TBA)	<2.5
Methyl t-butyl ether (MTBE)	<0.05
Ethyl t-butyl ether (ETBE)	<0.05
t-Amyl methyl ether (TAME)	<0.05
Diisopropyl ether (DIPE)	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,2-Dibromoethane (EDB)	<0.05
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	0.42
m,p-Xylene	2.6
o-Xylene	<0.05
Naphthalene	0.25

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	TOC_01-169_20110617 WORFDB5
Date Extracted:	06/20/11	Lab ID:	01-1015 mb
Date Analyzed:	06/21/11	Data File:	062029.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	62	142
Toluene-d8	101	55	145
4-Bromofluorobenzene	104	65	139

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
t-Butyl alcohol (TBA)	<2.5
Methyl t-butyl ether (MTBE)	<0.05
Ethyl t-butyl ether (ETBE)	<0.05
t-Amyl methyl ether (TAME)	<0.05
Diisopropyl ether (DIPE)	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,2-Dibromoethane (EDB)	<0.05
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Date of Report: 06/23/11
Date Received: 06/17/11
Project: TOC_01-169_20110617 WORFDB5, F&BI 106256

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 106256-03 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	0.03	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	8 a	12	40 a

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	90	66-121
Toluene	mg/kg (ppm)	0.5	90	72-128
Ethylbenzene	mg/kg (ppm)	0.5	90	69-132
Xylenes	mg/kg (ppm)	1.5	88	69-131
Gasoline	mg/kg (ppm)	20	100	61-153

Date of Report: 06/23/11
Date Received: 06/17/11
Project: TOC_01-169_20110617 WORFDB5, F&BI 106256

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 106260-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	101	98	73-135	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	99	74-139

Date of Report: 06/23/11
Date Received: 06/17/11
Project: TOC_01-169_20110617 WORFDB5, F&BI 106256

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 106238-07 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/kg (ppm)	50	10.8	94 b	96 b	51-132	2 b
Arsenic	mg/kg (ppm)	10	1.89	96	97	44-151	1
Selenium	mg/kg (ppm)	5	<1	91	95	52-128	4
Silver	mg/kg (ppm)	10	<1	101	105	69-125	4
Cadmium	mg/kg (ppm)	10	<1	103	105	83-120	2
Barium	mg/kg (ppm)	50	26.6	95 b	96 b	47-147	1 b
Lead	mg/kg (ppm)	20	1.85	104	107	65-126	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	50	98	79-125
Arsenic	mg/kg (ppm)	10	102	80-120
Selenium	mg/kg (ppm)	5	99	81-121
Silver	mg/kg (ppm)	10	103	84-117
Cadmium	mg/kg (ppm)	10	103	89-116
Barium	mg/kg (ppm)	50	99	88-113
Lead	mg/kg (ppm)	20	107	81-120

Date of Report: 06/23/11
Date Received: 06/17/11
Project: TOC_01-169_20110617 WORFDB5, F&BI 106256

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 106238-07 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Mercury	mg/kg (ppm)	0.125	<0.1	71	75	45-162	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.125	81	63-144

Date of Report: 06/23/11
Date Received: 06/17/11
Project: TOC_01-169_20110617 WORFDB5, F&BI 106256

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 106268-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Ethanol	mg/kg (ppm)	125	<50	92	10-174
t-Butyl alcohol (TBA)	mg/kg (ppm)	125	<2.5	91	16-169
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	77	21-145
Diisopropyl ether (DIPE)	mg/kg (ppm)	2.5	<0.05	80	29-136
Ethyl t-butyl ether (ETBE)	mg/kg (ppm)	2.5	<0.05	77	27-141
t-Amyl methyl ether (TAME)	mg/kg (ppm)	2.5	<0.05	81	27-144
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	82	12-160
Benzene	mg/kg (ppm)	2.5	<0.03	77	29-129
Toluene	mg/kg (ppm)	2.5	<0.05	81	35-130
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	84	28-142
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	81	32-137
m,p-Xylene	mg/kg (ppm)	5	<0.1	83	34-136
o-Xylene	mg/kg (ppm)	2.5	<0.05	82	33-134
Naphthalene	mg/kg (ppm)	2.5	<0.05	80	14-157

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Ethanol	mg/kg (ppm)	125	102	97	11-168	5
t-Butyl alcohol (TBA)	mg/kg (ppm)	125	97	87	41-150	11
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	90	96	60-123	6
Diisopropyl ether (DIPE)	mg/kg (ppm)	2.5	90	95	69-115	5
Ethyl t-butyl ether (ETBE)	mg/kg (ppm)	2.5	89	94	48-142	5
t-Amyl methyl ether (TAME)	mg/kg (ppm)	2.5	92	95	47-143	3
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	92	97	56-135	5
Benzene	mg/kg (ppm)	2.5	89	94	68-114	5
Toluene	mg/kg (ppm)	2.5	91	95	66-126	4
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	91	96	74-132	5
Ethylbenzene	mg/kg (ppm)	2.5	90	96	64-123	6
m,p-Xylene	mg/kg (ppm)	5	92	97	78-122	5
o-Xylene	mg/kg (ppm)	2.5	92	97	77-124	5
Naphthalene	mg/kg (ppm)	2.5	91	98	60-125	7

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

106256

SAMPLE CHAIN OF CUSTODY

ME 06-17-11 BT3/VS3

Page # 1 of 2

Send Report To BEAU JOHNSON

Company SOUNDEARTH

Address 2811 FAIRVIEW AVE EAST

City, State, ZIP SEATTLE WA 98102

Phone # 206.306.1900 Fax #

SAMPLERS (signature)

PROJECT NAME/NO. 01-169

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☑ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals	GRPH, BTEX, Oxygenates		Notes
B34-05	B34	5	01A-E	6/15/11	0835	SOIL	5	X					X	X		
B34-07.5	B34	7.5	02 T		0840											
B34-12.5	↓	12.5	03		0850				X	X						
B34-15	↓	15	04		0855				X	X						
B35-05	B35	5	05		1015											
B35-07.5	↓	7.5	06		1020				X	X						
B35-10	↓	10	07		1025											
B35-12.5	↓	12.5	08		1027				X	X						
B35-15	↓	15	09		1030				X	X						
B36-05	B36	5	10		1240		↓									
B36-07.5	↓	7.5	11A-D		1243		4									
B36-10	↓	10	12A-E		1245		5									
B36-12.5	↓	12.5	13A-E	↓	1250	↓	↓		X	X						

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Maureen Rajkovich	SES	6/17/11	945
Received by:		Nhem Phan	FCBI	6/17/11	0945
Relinquished by:					
Received by:			Samples received at 2 °C		

106256

SAMPLE CHAIN OF CUSTODY ME 06-17-11 BE3/VS3

Page # 2 of 2

Send Report To _____

Company See Page 1

Address _____

City, State, ZIP _____

Phone # _____ Fax # _____

SAMPLERS *(signature)*

PROJECT NAME/NO. 01-169

PO #

REMARKS

GEMS Y / N

TURNAROUND TIME
- ☑ Standard (2 Weeks)
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals	GRPH, BTEX, Oxygenates		Notes
B36-15	B36	15	14 A-E	6-15-11	1300	Soil	5	X					X	X		
B36-17.5		17.5	15		1305											
B36-20		20	16		1310											
B36-22.5		22.5	17		1325											
B36-25		25	18		1330				X	X						
B34-Composite	B34	-	19		0900		1									
B35-Composite	B35	-	20		1040		1									
B36-Composite	B36	-	21		1350		1									

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-3999
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Warren Rajkovich	SES	6/17/11	945
Received by:		Nhan Phan	FcBI	6/17/11	0945
Relinquished by:					
Received by:			Samples received at 2 °C		

FORMS\COC\SESGEMSR1.DOC (Revision 1)

Groundwater Analytical Reports

Friedman & Bruya, Inc. #011122

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

November 30, 2010

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

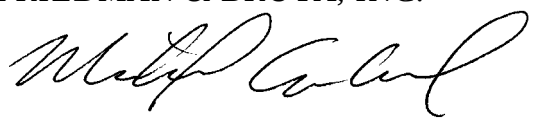
Dear Mr. Bixby:

Included are the results from the testing of material submitted on November 10, 2010 from the TOC_01-169_20101109 WORFDB4, F&BI 011122 project. There are 9 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU1130R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 10, 2010 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20101109 WORFDB4, F&BI 011122 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
011122-01	MW01-20101109
011122-02	OW1-20101109
011122-03	RW01-20101109
011122-04	RW06-20101109
011122-05	RW03-20101109
011122-06	RW07-20101109
011122-07	OW02-20101109
011122-08	RW02-20101109
011122-09	MW99-20101109

All quality control requirements were acceptable.

Date of Report: 11/30/10
Date Received: 11/10/10
Project: TOC_01-169_20101109 WORFDB4, F&BI 011122
Date Extracted: 11/10/10 and 11/15/10
Date Analyzed: 11/10/10 and 11/16/10

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW01-20101109 011122-01	<1	<1	<1	<3	<100	76
OW1-20101109 011122-02	<1	<1	<1	<3	<100	80
RW01-20101109 011122-03	<1	<1	<1	<3	<100	79
RW06-20101109 011122-04	<1	<1	<1	<3	<100	77
RW03-20101109 011122-05	<1	<1	<1	<3	<100	75
RW07-20101109 011122-06	<1	<1	<1	<3	<100	75
OW02-20101109 011122-07	<1	<1	<1	<3	<100	64
RW02-20101109 011122-08 1/100	140	420	820	5,400	22,000	80
MW99-20101109 011122-09	<1	<1	<1	<3	<100	79
Method Blank 00-1878 MB	<1	<1	<1	<3	<100	74
Method Blank 00-1839 MB	<1	<1	<1	<3	<100	77

Date of Report: 11/30/10
Date Received: 11/10/10
Project: TOC_01-169_20101109 WORFDB4, F&BI 011122
Date Extracted: 11/15/10
Date Analyzed: 11/16/10

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
MW01-20101109 011122-01	<50	<250	83
OW1-20101109 011122-02	<50	<250	132
RW01-20101109 011122-03	<50	<250	133
RW06-20101109 011122-04	<50	<250	61
RW03-20101109 011122-05	120 x	<250	136
RW07-20101109 011122-06	660 x	360 x	130
OW02-20101109 011122-07	660 x	760 x	132
RW02-20101109 011122-08	1,200 x	<250	57
MW99-20101109 011122-09	<50	<250	130
Method Blank 00-1870 MB	<50	<250	121

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	RW02-20101109	Client:	SoundEarth Strategies
Date Received:	11/10/10	Project:	TOC_01-169_20101109 WORFDB4
Date Extracted:	11/15/10	Lab ID:	011122-08 1/10
Date Analyzed:	11/15/10	Data File:	111519.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	63	127
Toluene-d8	101	65	127
4-Bromofluorobenzene	97	69	127

Compounds:	Concentration ug/L (ppb)
Naphthalene	360

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	TOC_01-169_20101109 WORFDB4
Date Extracted:	11/15/10	Lab ID:	001860 mb
Date Analyzed:	11/15/10	Data File:	111510.D
Matrix:	Water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	63	127
Toluene-d8	96	65	127
4-Bromofluorobenzene	94	69	127

Compounds:	Concentration ug/L (ppb)
Naphthalene	<1

Date of Report: 11/30/10
Date Received: 11/10/10
Project: TOC_01-169_20101109 WORFDB4, F&BI 011122

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 011095-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	1.1	<1	nm
Ethylbenzene	ug/L (ppb)	13	12	8
Xylenes	ug/L (ppb)	43	41	5
Gasoline	ug/L (ppb)	1,300	1,300	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	96	65-118
Toluene	ug/L (ppb)	50	94	72-122
Ethylbenzene	ug/L (ppb)	50	94	73-126
Xylenes	ug/L (ppb)	150	93	74-118
Gasoline	ug/L (ppb)	1,000	95	69-134

Date of Report: 11/30/10
Date Received: 11/10/10
Project: TOC_01-169_20101109 WORFDB4, F&BI 011122

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	90	91	63-142	1

Date of Report: 11/30/10
Date Received: 11/10/10
Project: TOC_01-169_20101109 WORFDB4, F&BI 011122

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 011048-09 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Naphthalene	ug/L (ppb)	50	<1	113	40-166

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	50	103	103	66-135	0

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

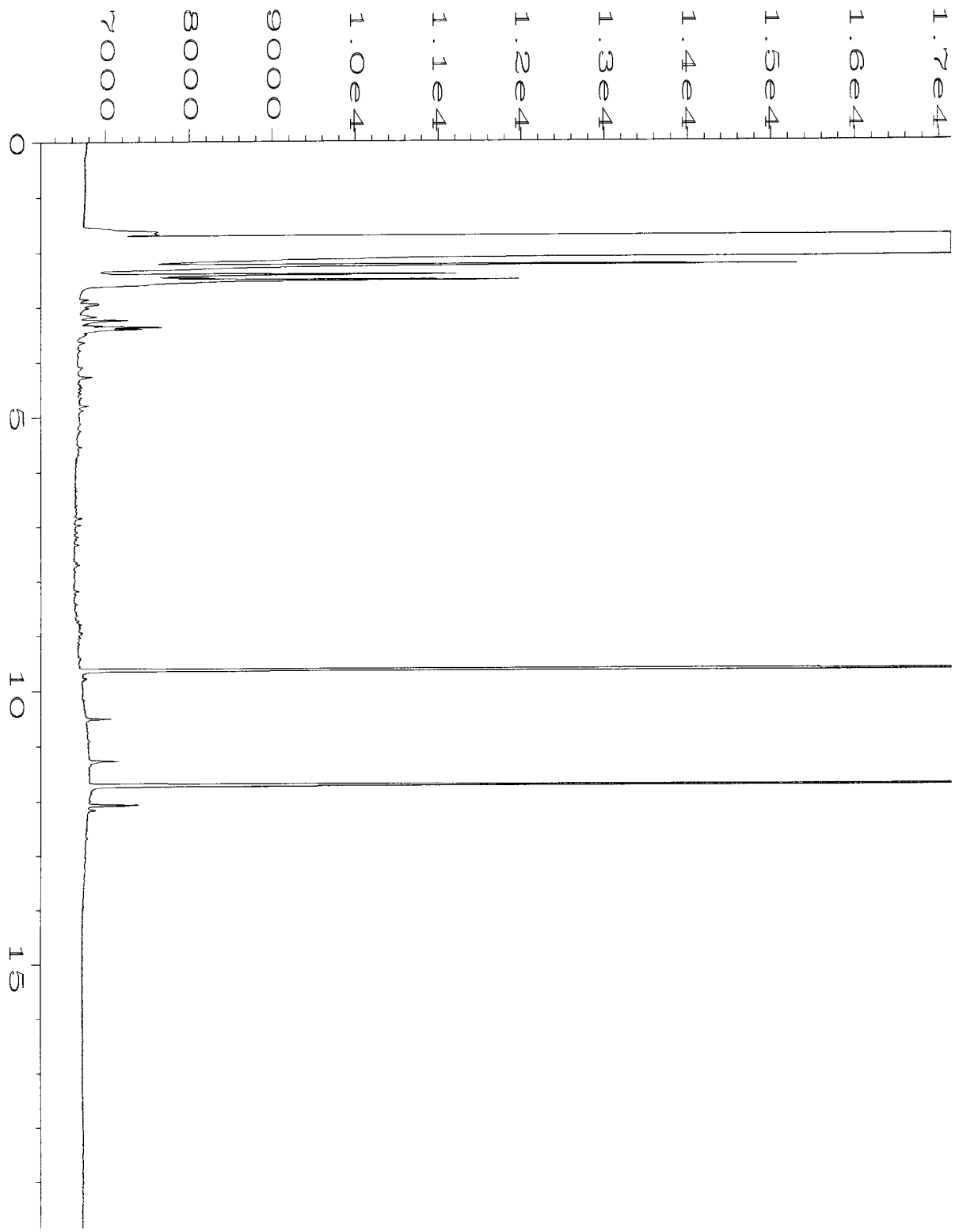
pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

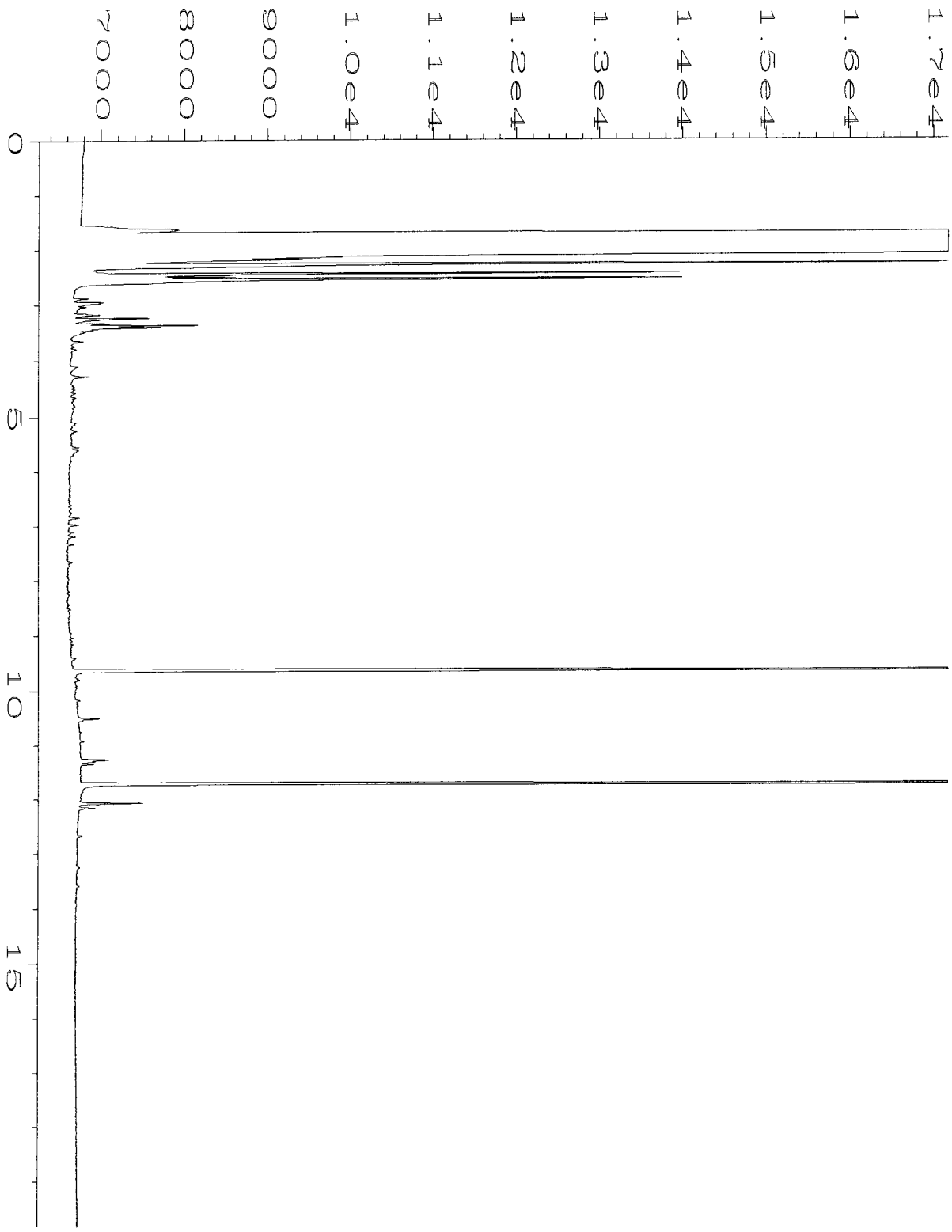
vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



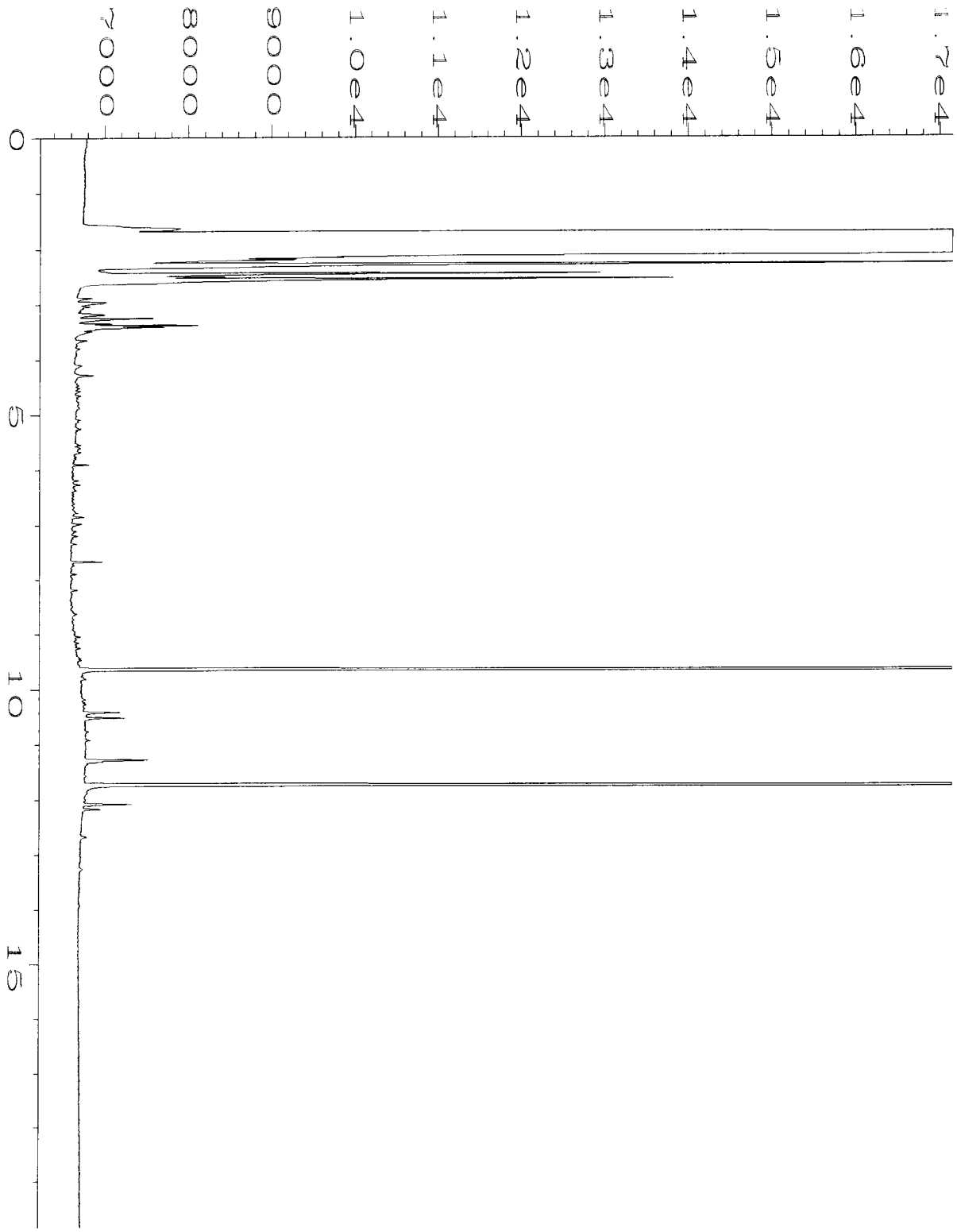
Data File Name : C:\HPCHEM\1\DATA\11-16-10\018F0501.D
Operator : ML
Instrument : GC1
Sample Name : 011122-01
Run Time Bar Code:
Acquired on : 16 Nov 10 04:27 PM
Report Created on: 17 Nov 10 11:16 AM

Page Number : 1
Vial Number : 18
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



Data File Name : C:\HPCHEM\1\DATA\11-16-10\019F0501.D
Operator : ML
Instrument : GC1
Sample Name : 011122-02
Run Time Bar Code:
Acquired on : 16 Nov 10 04:54 PM
Report Created on: 17 Nov 10 11:16 AM

Page Number : 1
Vial Number : 19
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



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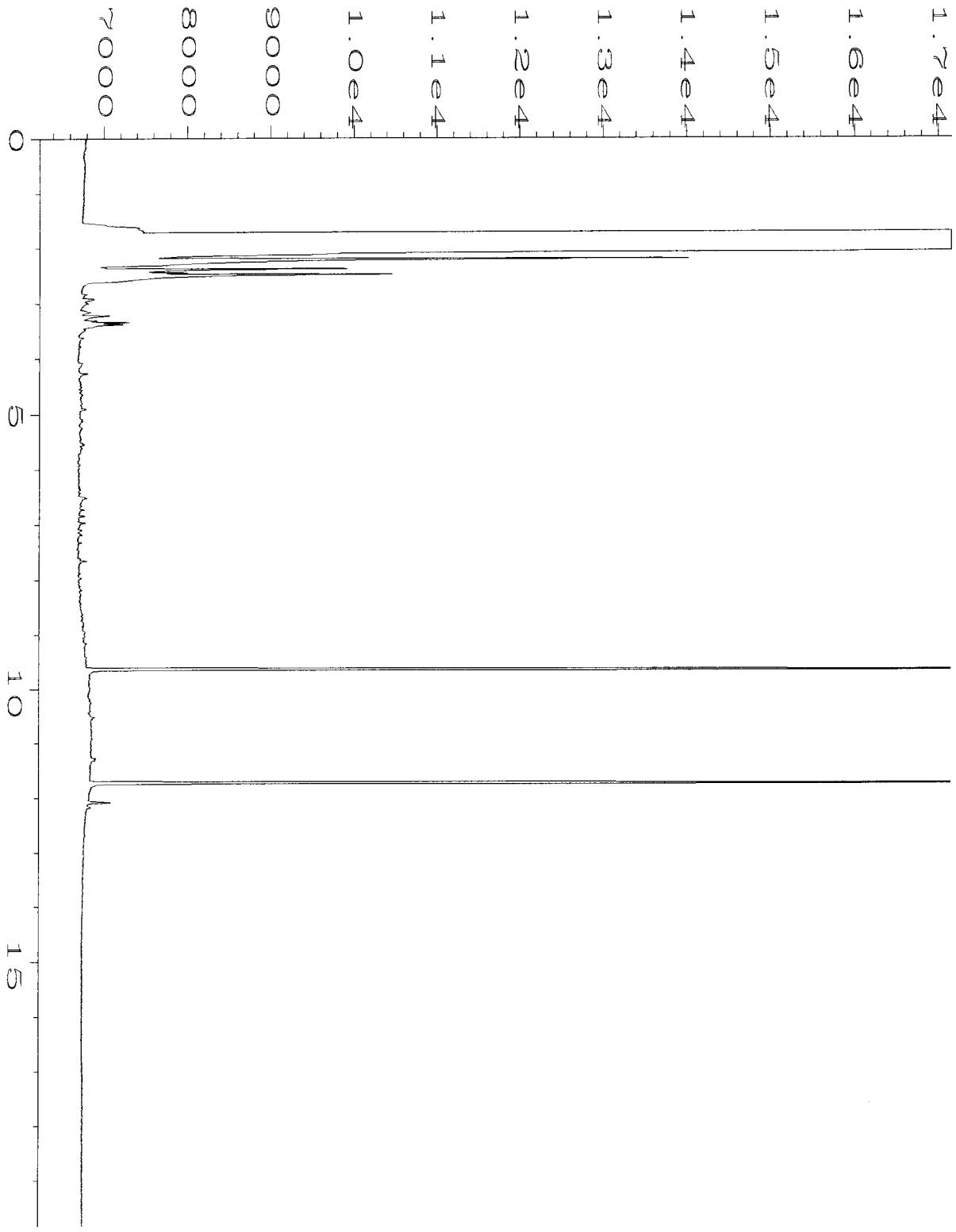
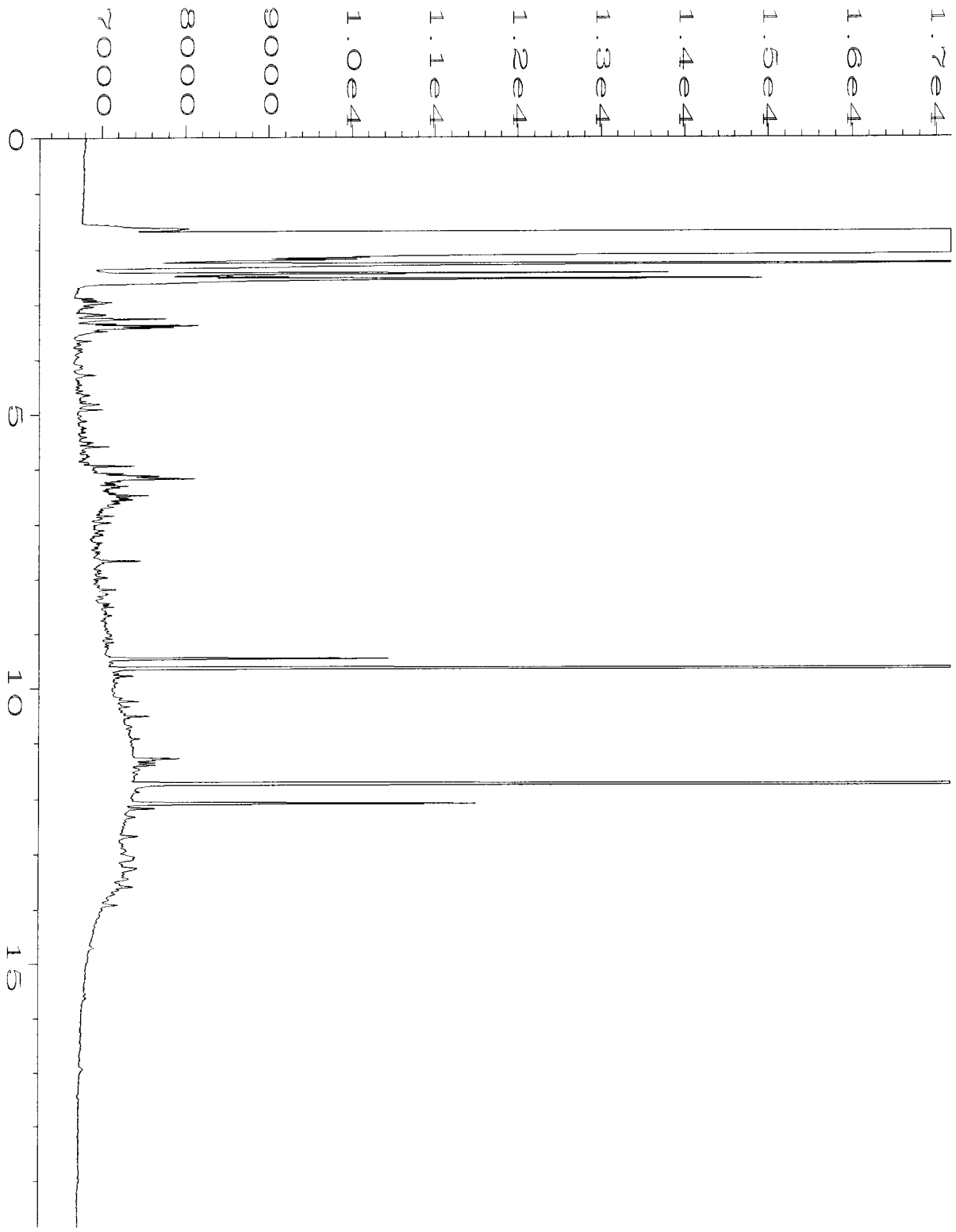
Operator : ML
Instrument : GC1
Sample Name : 011122-03
Run Time Bar Code:
Acquired on : 16 Nov 10 05:20 PM
Report Created on: 17 Nov 10 11:16 AM

Page Number : 1
Vial Number : 20
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



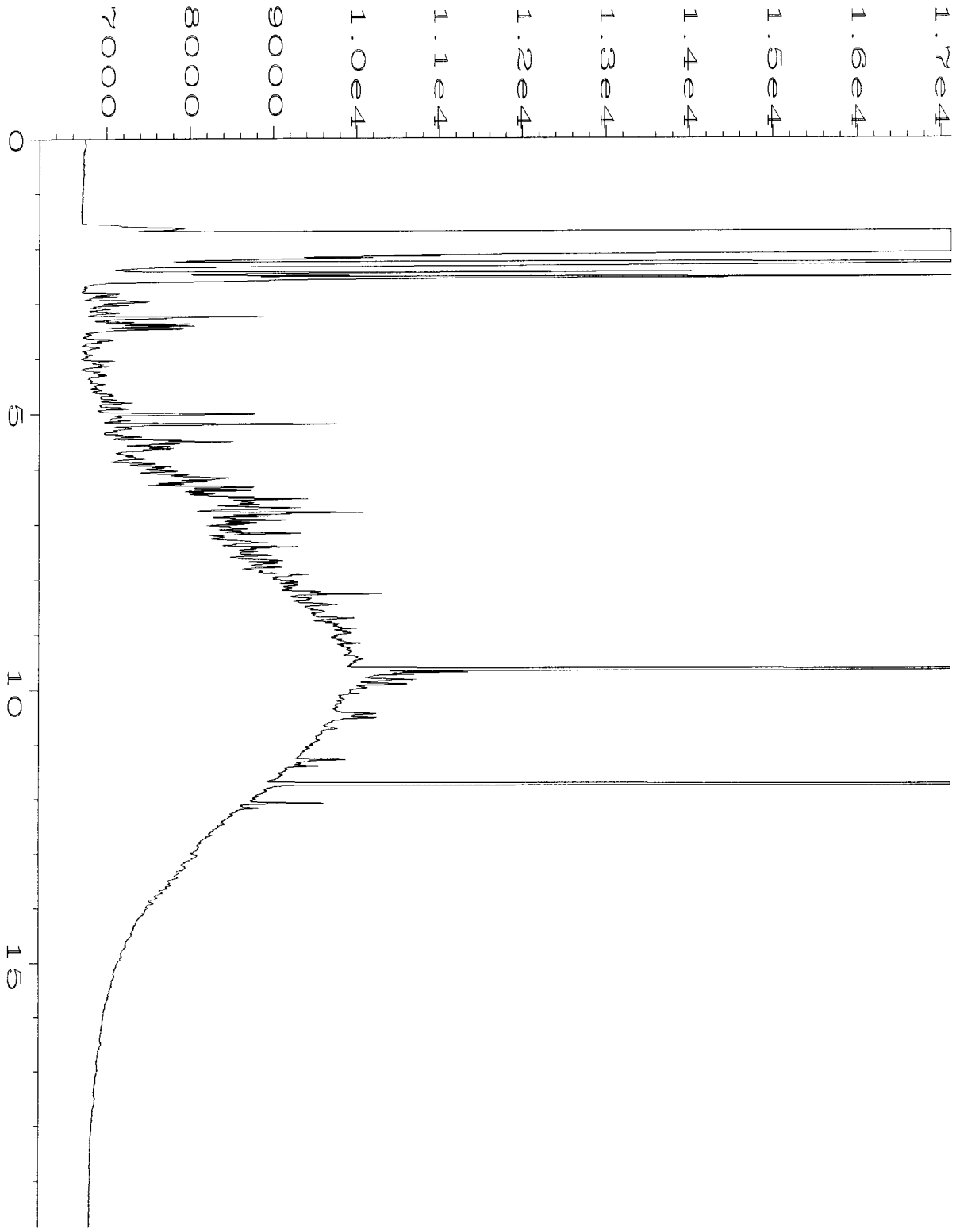
Data File Name : C:\HPCHEM\1\DATA\11-16-10\021F0501.D
Operator : ML
Instrument : GC1
Sample Name : 011122-04
Run Time Bar Code:
Acquired on : 16 Nov 10 05:47 PM
Report Created on: 17 Nov 10 11:16 AM

Page Number : 1
Vial Number : 21
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



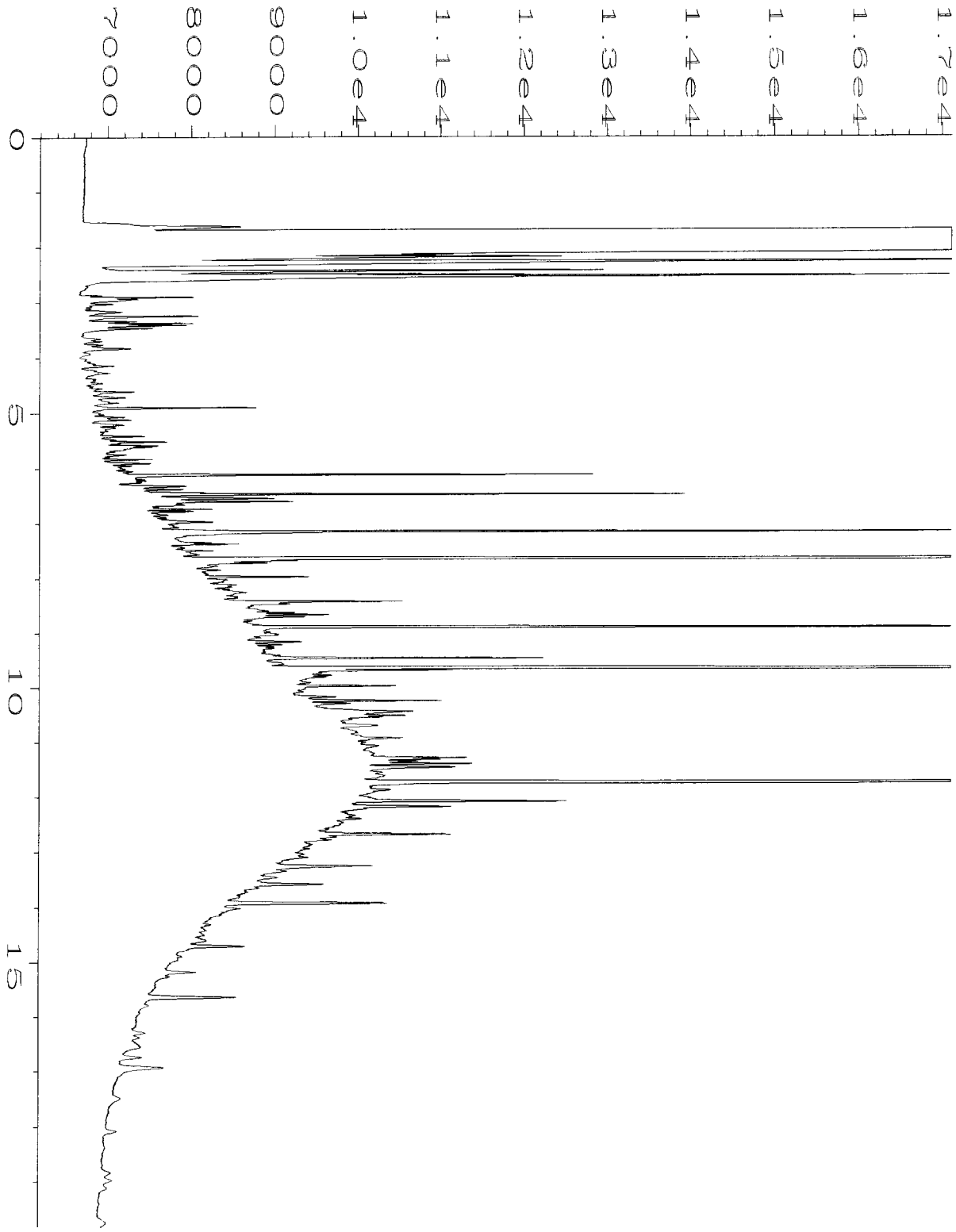
Data File Name : C:\HPCHEM\1\DATA\11-16-10\022F0501.D
Operator : ML
Instrument : GC1
Sample Name : 011122-05
Run Time Bar Code:
Acquired on : 16 Nov 10 06:13 PM
Report Created on: 17 Nov 10 11:16 AM

Page Number : 1
Vial Number : 22
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



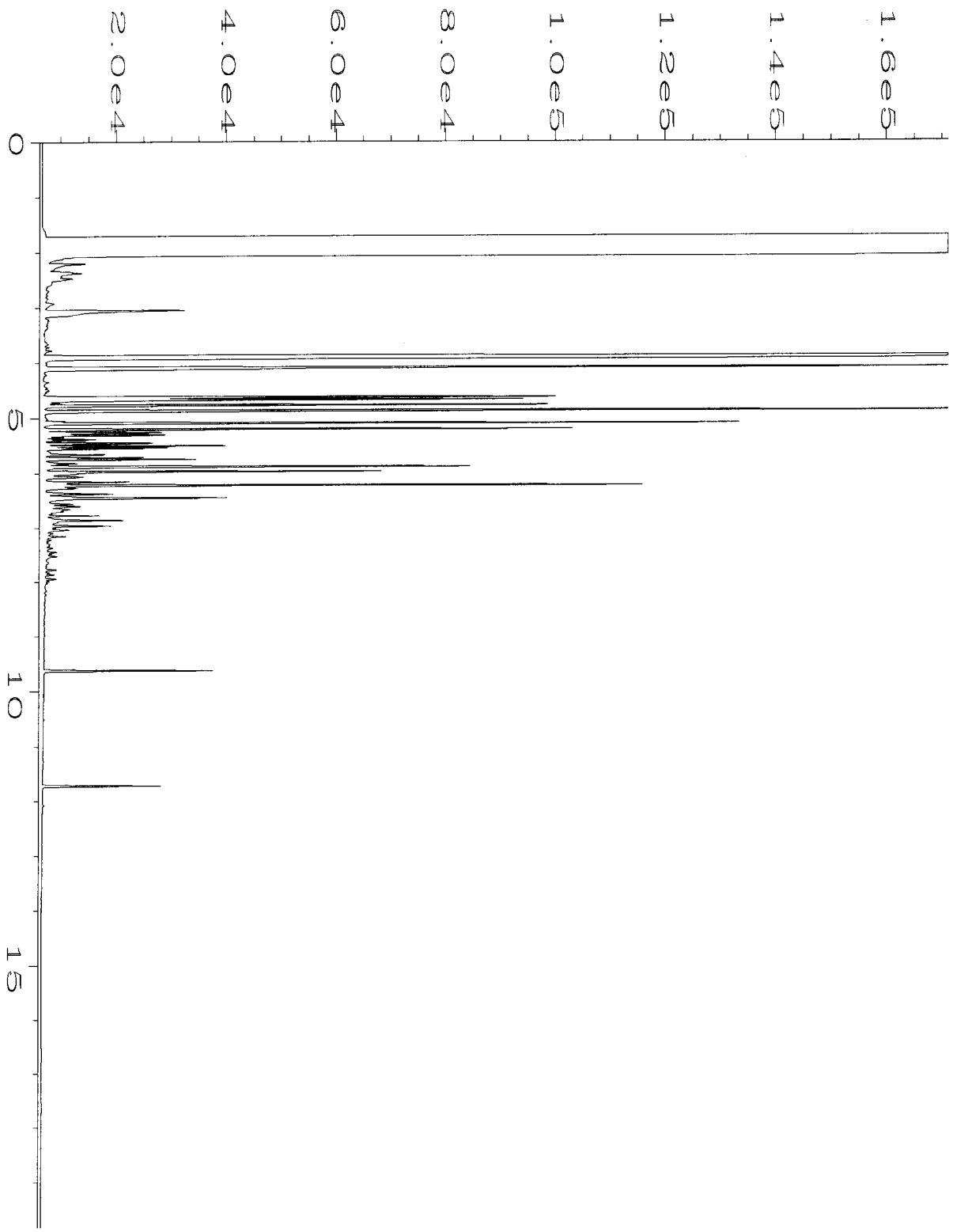
Data File Name : C:\HPCHEM\1\DATA\11-16-10\023F0501.D
Operator : ML
Instrument : GC1
Sample Name : 011122-06
Run Time Bar Code:
Acquired on : 16 Nov 10 06:40 PM
Report Created on: 17 Nov 10 11:16 AM

Page Number : 1
Vial Number : 23
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH

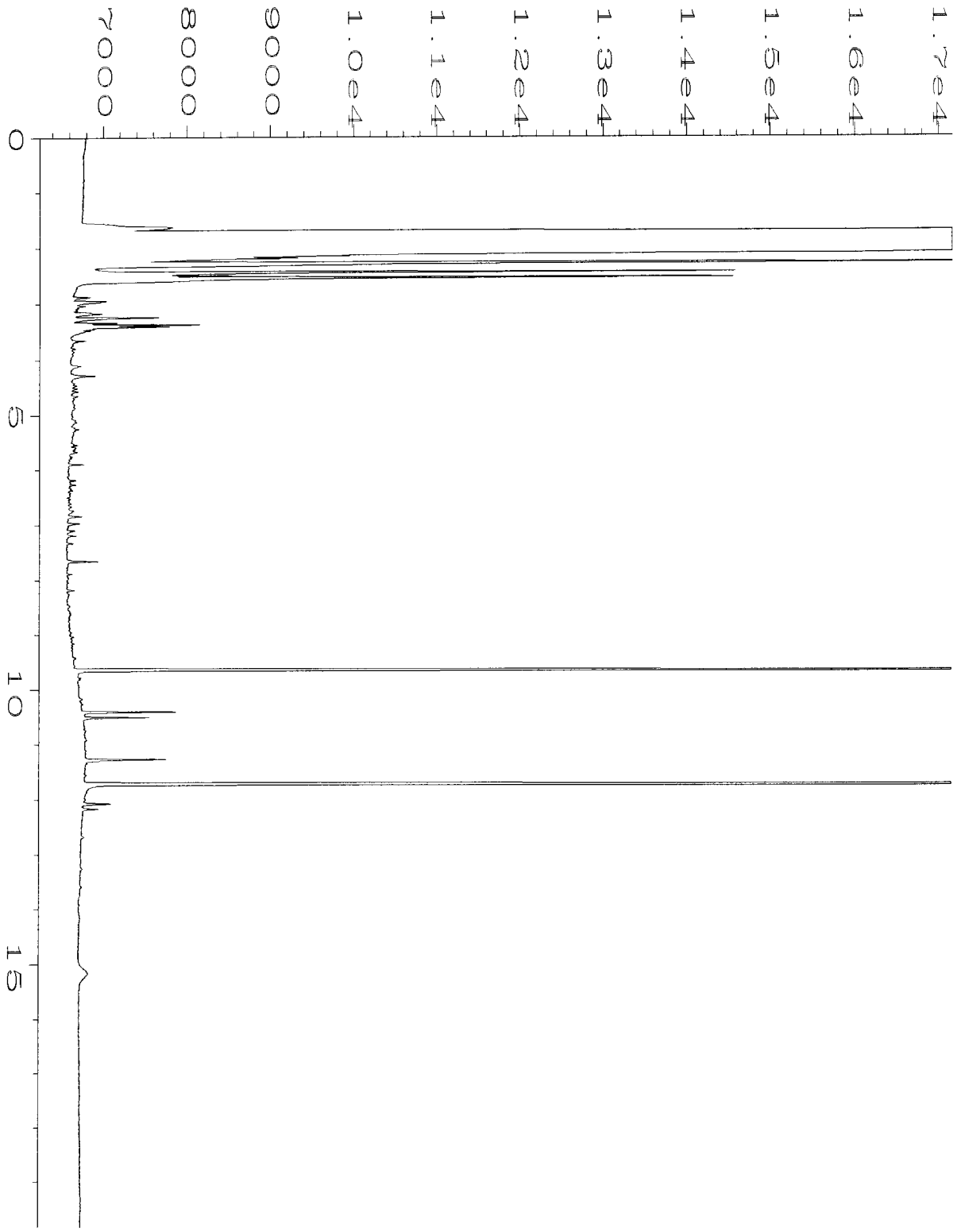


Data File Name : C:\HPCHEM\1\DATA\11-16-10\024F0501.D
Operator : ML
Instrument : GC1
Sample Name : 011122-07
Run Time Bar Code:
Acquired on : 16 Nov 10 07:06 PM
Report Created on: 17 Nov 10 11:16 AM

Page Number : 1
Vial Number : 24
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH



Data File Name	: C:\HPCHEM\1\DATA\11-16-10\025F0501.D		
Operator	: ML	Page Number	: 1
Instrument	: GC1	Vial Number	: 25
Sample Name	: 011122-08	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 16 Nov 10 07:33 PM	Instrument Method	: TPHD.MTH
Report Created on	: 17 Nov 10 11:17 AM	Analysis Method	: TPHD.MTH



Data File Name : C:\HPCHEM\1\DATA\11-16-10\026F0501.D
Operator : ML
Instrument : GC1
Sample Name : 011122-09
Run Time Bar Code:
Acquired on : 16 Nov 10 07:59 PM
Report Created on: 17 Nov 10 11:17 AM

Page Number : 1
Vial Number : 26
Injection Number : 1
Sequence Line : 5
Instrument Method: TPHD.MTH
Analysis Method : TPHD.MTH

011122

SAMPLE CHAIN OF CUSTODY ME 11-10-10 A05/V4

Page # ______ of ______

Send Report To Beau Johnson

Company Sand Earth Strategies

Address 2811 Fairview Ave E

City, State, ZIP Seattle WA 98102

Phone # 206-306-1900 Fax # 306-1907

SAMPLERS (*signature*) A. Leaf, E. Fabes

PROJECT NAME/NO. TOC Holdings - Everett 0440-002-10 9-0169

PO#

REMARKS

TURNAROUND TIME
☐ Standard (2 Weeks)
☐ RUSH______
Rush charges authorized by ______

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS							Notes
MW01-20101109	01 A-G	11/9/10	1138	Water	7	X	X	X										
OW1-20101109	02 A-G	11/9/10	1145	Water	7	X	X	X										
RW01-20101109	03 A-G	11/9/10	1237	Water	7	X	X	X										
RW06-20101109	04 A-G	11/9/10	1342	Water	7	X	X	X										
RW03-20101109	05 A-G	11/9/10	1255	Water	7	X	X	X										
RW07-20101109	06 A-G	11/9/10	1430	Water	7	X	X	X										
OW02-20101109	07 A-G	11/9/10	1433	Water	7	X	X	X										
RW02-20101109	08 A-G	11/9/10	1535	Water	7	X	X	X	X									→ Naphthalene
MW99-20101109	09 A-G	11/9/10		Water	7	X	X	X										

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Andrew Leaf	SES	11/10/10	1025
Received by: [signature]	Michael Erdahl	FE Bruya	|	|
Relinquished by:				
Received by:		Samples received at 4 °C		

FORMS\COC\COC.DOC

Friedman & Bruya, Inc. #012261

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

December 28, 2010

Ryan Bixby, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Bixby:

Included are the results from the testing of material submitted on December 22, 2010 from the TOC_01-169_20101222 WORFDB4, F&BI 012261 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Mark Chandler, Audrey Hackett, Beau Johnson
SOU1228R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 22, 2010 by Friedman & Bruya, Inc. from the SoundEarth Strategies TOC_01-169_20101222 WORFDB4, F&BI 012261 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
012261-01	MW09-20101221

All quality control requirements were acceptable.

Date of Report: 12/28/10
Date Received: 12/22/10
Project: TOC_01-169_20101222 WORFDB4, F&BI 012261
Date Extracted: 12/23/10
Date Analyzed: 12/24/10

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW09-20101221 012261-01	<1	<1	<1	<3	<100	86
Method Blank 00-2125 MB	<1	<1	<1	<3	<100	82

Date of Report: 12/28/10
Date Received: 12/22/10
Project: TOC_01-169_20101222 WORFDB4, F&BI 012261

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 012267-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	105	65-118
Toluene	ug/L (ppb)	50	103	72-122
Ethylbenzene	ug/L (ppb)	50	104	73-126
Xylenes	ug/L (ppb)	150	105	74-118
Gasoline	ug/L (ppb)	1,000	87	69-134

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

012261

SAMPLE CHAIN OF CUSTODY

ME 12/22/10

V3

Page # 1 of 1

Send Report To: Bean Johnson
Company: SoundEarth Strategies, Inc.
Address: 2811 Fairview Ave E
City, State, ZIP: Seattle, WA 98102
Phone #: 2063061900 Fax #:

SAMPLERS (signature): Chris Cass

PROJECT NAME/NO.: TOC Facility 01-169

PO #:

REMARKS:

GEMS Y / N

TURNAROUND TIME
- ☑ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID / Location ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx (w/ BTEX)	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals			Notes
MW09-J010221	01A-C	N/A		12/21/10	1600	Water	3		X							Gas/BTEX analysis

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Chris Cass	Chris Cass	SES	12-22-10	0815
Received by:		Jeanine Kirby	Champion	12-22-10	10:58
Relinquished by:					
Received by:		Nhan Phan	FedEx	12/22/10	1145

FORMS\COC\SESGEMSR1.DOC (Revision 1)

APPENDIX C

Terrestrial Ecological Evaluation Form

Washington State Department of Ecology
Toxics Cleanup Program

Table 749-1

Simplified Terrestrial Ecological Evaluation-Exposure Analysis Procedure

Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre).	
1) From the table below, find the number of points corresponding to the area and enter this number in the field to the right.	5
Area (acres) / Points: 0.25 or less / 4; 0.5 / 5; 1.0 / 6; 1.5 / 7; 2.0 / 8; 2.5 / 9; 3.0 / 10; 3.5 / 11; 4.0 or more / 12	
2) Is this an industrial or commercial property? If yes, enter a score of 3. If no, enter a score of 1	3
3)[a] Enter a score in the box to the right for the habitat quality of the site, using the following rating system[b]. High=1, Intermediate=2, Low=3	1
4) Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2.[c]	1
5) Are there any of the following soil contaminants present: Chlorinated dioxins/furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	4
6) Add the numbers in the boxes on lines 2-5 and enter this number in the box to the right. If this number is larger than the number in the box on line 1, the simplified evaluation may be ended.	9

Notes for Table 749-1

[a] It is expected that this habitat evaluation will be undertaken by an experienced field biologist. If this is not the case, enter a conservative score of (1) for questions 3 and 4.

[b] **Habitat rating system.** Rate the quality of the habitat as high, intermediate or low based on your professional judgment as a field biologist. The following are suggested factors to consider in making this evaluation:

> **Low:** Early successional vegetative stands; vegetation predominantly noxious, nonnative, exotic plant species or weeds. Areas severely disturbed by human activity, including intensively cultivated croplands. Areas isolated from other habitat used by wildlife.