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FOCUSED FEASIBILITY STUDY AND DISPROPORTIONATE COST ANALYSIS REPORT

LAKEVIEW FACILITY
2800 104TH STREET COURT SOUTH
LAKEWOOD, WASHINGTON
VCP IDENTIFICATION NO. SW1012

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April 14, 2015

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ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
AS/SVE	air sparge/soil vapor extraction
bgs	below ground surface
COC	constituent of concern
DCA	Disproportionate Cost Analysis
Draft Vapor Intrusion Guidance	Draft *Guidance for Evaluating Soil Gas Intrusion in Washington State: Investigation and Remediation, Publication No. 09-09-047*, October 2009.
DRO	total petroleum hydrocarbons as diesel-range organics
Ecology	Washington State Department of Ecology
EDR	*Engineering Design Report, Woodworth Capital, Inc., Formerly Known as Woodworth & Company, Inc., Lakeview Facility, 2800 104th Street South, Lakewood, Washington 98499* dated January 20, 2010.
EPA	U.S. Environmental Protection Agency
Farallon	Farallon Consulting, L.L.C.
FFS	Focused Feasibility Study
FFS/DCA Report	Draft *Focused Feasibility Study and Disproportionate Cost Analysis Report, Lakeview Facility, 2800 104th Street South, Lakewood, Washington* dated April 10, 2014, prepared by Farallon Consulting, L.L.C. (this report)
HVOCs	halogenated volatile organic compounds
JEM	Johnson and Ettinger vapor intrusion model
mg/kg	milligrams per kilogram
µg/l	micrograms per liter
µg/m^3	micrograms per cubic meter
MTCA	Washington State Model Toxics Control Act Cleanup Regulation
NFA	No Further Action
ORO	total petroleum hydrocarbons as oil-range organics
RI	Remedial Investigation
RI/FS Report	*Remedial Investigation/Feasibility Study Report, Woodworth & Company, Inc., Lakeview Facility, 2800 104th Street South, Lakewood, Washington 98499* dated August 19, 2009, prepared by Farallon

Site	Lakeview Facility at 2800 104th Street Court South in Lakewood, Washington
TCE	trichloroethene
TEE	Terrestrial Ecological Evaluation
VCP	Voluntary Cleanup Program
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Focused Feasibility Study (FFS) and Disproportionate Cost Analysis (DCA) Report (FFS/DCA Report) for the Lakeview Facility at 2800 104th Street Court South in Lakewood, Washington (herein referred to as the Site) (Figure 1). The FFS/DCA Report has been prepared to present the results from a technical evaluation and DCA of remedial alternatives for the cleanup of trichloroethene (TCE), arsenic, and lead in groundwater at concentrations exceeding Washington State Model Toxics Control Act Cleanup Regulation (MTCA) cleanup levels, as established in Chapter 173-340 of the Washington Administrative Code (WAC 173-340).

The *Remedial Investigation/Feasibility Study Report, Woodworth & Company, Inc., Lakeview Facility, 2800 104th Street South, Lakewood, Washington 98499* dated August 19, 2009, prepared by Farallon (2009c) (RI/FS Report) identified TCE, arsenic, lead, total petroleum hydrocarbons as diesel-range organics (DRO) and as oil-range organics (ORO) as constituents of concern (COCs) in soil and/or groundwater at the Site. The selected cleanup action approved by the Washington State Department of Ecology (2010; 2011) was implemented between 2010 and 2013 by the former owner of the Site, Woodworth and Company, Inc., as an independent remedial action under the Ecology Voluntary Cleanup Program (VCP Identification No. NW 2600).

The cleanup standards defined in the Ecology-approved RI/FS Report for DRO and ORO have been met at the Site and therefore are no longer constituents of concern as documented by Farallon (2011b). The cleanup standards for TCE, arsenic, and lead in groundwater cannot practicably be met by the selected cleanup action in a reasonable restoration time frame. This FFS/DCA Report provides the basis for the selection of natural attenuation and institutional controls as the most practicable permanent solution to protect human health and the environment.

The selected cleanup action in the Ecology-approved RI/FS Report for TCE in groundwater consisted of an air sparging (AS)/soil vapor extraction (SVE) remediation system that operated continuously from November 2010 to early March 2013 to accelerate the natural attenuation processes. The SVE component of the remediation system continued to operate until approximately September 2014. Farallon determined that the rate of decrease in concentrations of TCE in groundwater had slowed such that continued operation of the AS/SVE system would not practicably result in reducing TCE to concentrations less than the cleanup standards in a reasonable time frame and that the cost of continued operation of the AS/SVE remediation system would be disproportionate to the environmental benefit for the protection of human health and the environment. Farallon expects that natural attenuation of TCE will continue following shut-down of the AS/SVE remediation system, and that TCE concentrations in groundwater eventually will reach the MTCA Method A cleanup level.

The recommended cleanup action includes placing an Environmental Covenant on the Site as an institutional control for TCE, arsenic, and lead in groundwater to preclude the use of groundwater as a source of potable water. Use of an institutional control will adequately protect human health and the environment to meet the requirements of MTCA for a No Further Action (NFA) determination for the Site.

1.1 PURPOSE

This FFS/DCA Report has been prepared to collect, develop, and evaluate sufficient information to select the final cleanup action under WAC 173-340-360 through WAC 173-340-390 for areas of the Site where concentrations of TCE, arsenic, or lead in groundwater exceed cleanup standards. A DCA was conducted per WAC 173-340-360(3)(e) to evaluate the practicability of the cleanup alternatives that do not meet the definition of a Permanent Cleanup Action per WAC 173-340-200 and to present the basis for selection of natural attenuation and institutional controls as the final cleanup action for areas of the Site where concentrations of TCE, arsenic, or lead in groundwater exceed cleanup standards. This FFS/DCA Report presents sufficient information to meet the requirements for an NFA determination for the Site under the VCP from Ecology.

1.2 ORGANIZATION

This FFS/DCA Report has been organized into the following sections:

- **Section 2—Site Background**: This section provides a description of the Site and its location, regional geology, and a summary of previous environmental investigations and cleanup actions conducted at the Site.
- **Section 3—Vapor Intrusion Assessment**: This section presents a summary of the vapor intrusion assessment performed by Farallon to evaluate whether indoor air is a medium of concern in the portion of the Site impacted by TCE.
- **Section 4—Technical Elements for the Cleanup Action:** This section summarizes technical elements for the cleanup action, including identification of COCs, sources of contamination, media of concern, the nature and extent of contamination, cleanup standards, including defining cleanup levels and points of compliance, the fate and transport of constituents of concern, and potential exposure pathways at the Site.
- **Section 5—Focused Feasibility Study:** This section summarizes the methods and results of the FFS conducted for the Site. A discussion of the two cleanup alternatives developed for MTCA evaluation and the DCA conducted for the Site is provided. The recommended cleanup alternative for the Site is identified and justified in this section and a monitoring plan for the selected cleanup alternative is summarized.
- **Section 6—Summary:** This section presents Farallon's conclusions regarding the completion of the cleanup action in AOC 1, AOC 2, and AOC 3, and recommended cleanup action for AOC 4 and AOC 5.
- **Section 7—Bibliography:** This section lists the documents used during the preparation of this report.
- **Section 8—Limitations:** This section describes Farallon's standard limitations.

2.0 SITE BACKGROUND

This section describes the Site location, features, and history; discusses Site geology and hydrogeology; and summarizes previous investigations and cleanup actions conducted at the Site and the results of groundwater monitoring and sampling conducted by Farallon. A detailed discussion of the Site background and cleanup action activities conducted prior to 2010 is provided in the RI/FS Report.

2.1 SITE LOCATION AND DESCRIPTION

The Site is located north of Washington State Route 512, east of Interstate 5, and west of Sales Road South in Section 6, Township 19 North, Range 3 East in Lakewood, Pierce County, Washington (Figures 1 and 2). The Site consists of Tacoma–Pierce County Parcel Nos. 0319061135, 0319061136, 0319062075, and 0319062076, together totaling approximately 60 acres.

Various portions of the four parcels were mined and used for sand and gravel, and a permitted thermal desorption treatment of petroleum-contaminated soil from off-Site locations. The Site has been used for recycling imported asphalt and concrete debris and for producing hot- and cold-mix asphalt. Other Site uses have included the parking and maintenance of trucks and construction and paving equipment owned and operated previously by Woodworth & Company, Inc. and currently by Miles Sand & Gravel, Inc., which is the current owner. Structures on the Site include an asphalt-processing plant, a truck maintenance shop building, a Quonset building used for the shredding and recycling of asphalt shingles, and several small sheds and job-site trailers used for storage, office space, or maintenance activities (Figure 2).

The RI/FS Report documented that petroleum hydrocarbon constituents were detected at concentrations exceeding the MTCA Method A cleanup levels in three Areas of Concern (AOCs), TCE in one AOC, and metals in one AOC in soil and/or groundwater. The AOCs are depicted on Figure 2 and are defined as follows:

- AOC 1: Equipment Storage Carport Area;
- AOC 2: Equipment Parking Area;
- AOC 3: Former Recycled Stockpile Area;
- AOC 4: Asphalt-Testing Laboratory Area; and
- AOC 5: Fill Area.

The selected cleanup action to address the petroleum hydrocarbon constituents in soil and/or groundwater in AOC 1, AOC 2, and AOC 3 was completed and documented in the *Soil Excavation Cleanup Action Completion Report, Woodworth Lakeview Facility, 2800 104th Street Court South, Lakewood, Washington* dated March 28, 2011, prepared by Farallon (2011b). Additional confirmation groundwater monitoring for AOC 1 and AOC 3, as agreed to by the representatives of Ecology; Woodworth Capital, Inc.; Miles Sand & Gravel, Inc.; and Farallon at a meeting held on February 16, 2011, was completed in 2011 by Farallon and is summarized in Section 2.4.4, Soil Excavation Cleanup Action—Farallon 2010-2011 of this FFS/DCA Report.

AOC 4 is near the central portion of the Site, immediately west-northwest of the roofing shredder building where TCE has been detected at concentrations exceeding the MTCA Method A cleanup level in groundwater (Figure 2). Releases of TCE to soil and groundwater are attributable to past operations and practices in the reported vicinity of a former Washington State Department of Transportation (WSDOT) mobile testing laboratory.

AOC 5 is in the northeastern portion of the Site in the area where fill material was placed that may be in contact with groundwater (Figure 2). Total and dissolved arsenic and lead have been detected at concentrations exceeding MTCA Method A cleanup levels in groundwater in AOC 5.

2.2 HISTORICAL USE

The Site was first developed between 1946 and 1969 for surface sand and gravel mining operations (Farallon 2009a). Hot-mix asphalt production reportedly commenced on the Site in 1971 (Farallon 2009a). Sand and gravel mining operations continued until the late 1980s, at which time the raw materials for asphalt production were imported from off-Site locations.

At some time between the 1980s and early 1990s, the WSDOT operated a mobile laboratory on the Site for the testing of asphalt mix, which included use of TCE in the asphalt-testing process. WSDOT personnel reportedly disposed of spent TCE by pouring the substance directly into the soil on the Site. Although the exact location of the former WSDOT mobile laboratory is unknown, Farallon learned from interviews with on-site personnel that its likely location was the area between the asphalt plant and the roofing shredder building (Figure 2).

The Site was used from approximately 1981 to 1992 to stockpile various inert waste materials such as clean soil and rock, waste concrete and asphalt, waste concrete roof tiles, and foundry cast steel waste material consisting of refuse sand, refractory materials, reclaim dust, and slag. The foundry waste material reportedly consisted of silica and chromite sands, bentonite clay, sodium silicate, burned dolomite brick, high alumina brick, calcium aluminate cement and mortar, ladle linings, and silica dust and flour (Tacoma-Pierce County Health Department 2003).

Treatment of imported petroleum-contaminated soil by thermal desorption was conducted on the Site from 1991 to 2005 under a Conditional Solid Waste Permit from the Tacoma-Pierce County Health Department. In 1994, Woodworth and Company, Inc. sold the soil treatment facility to TPST Soil Recyclers of Washington and remained the owner of the Site. Operations by TPST Soil Recyclers of Washington ended in approximately 2005, at which time the majority of the buildings and equipment used for soil treatment were demolished or decommissioned.

2.3 REGIONAL GEOLOGY

The Site is located in the Puget Sound Lowlands between the surface waters of Puget Sound on the west and the Cascade Mountains on the east. The non-uniform topography of the Site vicinity can be attributed to glacial carving and deposition. The topography of the Site slopes slightly to the northwest, but has been significantly altered by mining activities. Areas along the west, north, and south Site boundaries are up to 35 feet higher in elevation than other portions of the Site.

The Site is underlain by a complex 1,300- to 2,000-foot-thick sequence of alternating glacial and nonglacial Quaternary sediments deposited during multiple advances of the Cordilleran ice sheet into the Puget Sound Lowlands during the Pleistocene era (Borden and Troost 2001). The uppermost lithology of the area has been attributed to Pleistocene glacial deposits of the Vashon Stade of the Fraser glaciation (Armstrong et al. 1965), consisting mainly of Steilacoom Gravel as defined by Walters and Kimmel (1968) (Troost 2010). The origin of the gravel is attributed to multiple outburst floods from subsequently lower elevations of Glacial Lake Puyallup (Troost 2010).

2.4 PREVIOUS INVESTIGATIONS AND CLEANUP ACTIONS

A detailed description of the scopes of work and results of previous subsurface investigations and interim cleanup actions completed at the Site through February 2011 is presented in the RI Work Plan (2009a), Addendum to the RI Work Plan (Farallon 2009b), RI/FS Report (2009c), Soil Excavation Cleanup Action Completion Report (2011b), and Cleanup Action Status Report, September 2009 through February 2011 (2011c), all prepared by Farallon. A summary of previous subsurface investigations and interim cleanup actions completed at the Site to date is provided below.

2.4.1 Investigations by Others 1983-2008

The investigations were conducted between 1983 and 2008 by Robinson & Noble, Inc. (1991a and 1991b); ATEC Associates, Inc. (1991); PAC-TECH Engineering, Inc. (1993); Saltbush Environmental Service, Inc. (1994); and Spectra Laboratories, Inc. (Spectra) (1995 through 2008). The investigations included the collection of soil samples, installation of monitoring wells, periodic sampling of groundwater, and sampling of surface water from retention ponds present at the Site. According to the investigations conducted by others, TCE, DRO, ORO, and metals were detected at concentrations exceeding MTCA cleanup levels in soil and/or groundwater.

2.4.2 Subsurface Investigation—Farallon 2008

Farallon conducted a subsurface investigation at the Site between August and October 2008 that included advancement of soil borings, installation of monitoring wells, and collection and laboratory analysis of soil, groundwater, and surface water samples. DRO and/or ORO were detected at concentrations exceeding MTCA Method A cleanup levels in soil samples collected in AOC 2 and AOC 3 during the subsurface investigation. TCE, arsenic, and lead were detected at concentrations exceeding MTCA Method A cleanup levels in groundwater. Constituents detected at concentrations less than MTCA cleanup levels included total petroleum hydrocarbons as gasoline-range organics and metals in soil, and halogenated volatile organic compounds (HVOCs) in groundwater. Arsenic and ORO were detected in surface water samples collected from retention ponds at the Site. The results from the previous investigations conducted by others and the additional investigation activities conducted at the Site by Farallon (2009a, 2009b) in 2008 were used to develop a preliminary conceptual site model and to identify data gaps for the RI.

2.4.3 Remedial Investigation and Feasibility Study—Farallon 2009

The RI was conducted under the Ecology VCP in 2009 to collect sufficient information to address the data gaps in the conceptual site model to meet the requirements of MTCA and to enable evaluation and selection of technically feasible cleanup alternatives. The objectives of the RI were to: define the lateral and vertical extent of concentrations of COCs exceeding cleanup levels in soil and groundwater; confirm the groundwater flow direction and gradient in the shallow and deep water-bearing zones; investigate the nature and extent of fill material potentially located on the eastern portion of the Site; and evaluate the potential for natural attenuation processes to reduce concentrations of TCE at the Site. The scope of work for the RI included collection of reconnaissance soil and groundwater samples from borings, installation of monitoring wells, collection of groundwater samples from monitoring wells and a water-supply well, and excavation of test pits for collection of soil samples in the fill area.

Soil encountered at the Site during the field activities for the RI and subsequently during installation of the remediation system consisted of poorly graded sand and gravel separated by a layer or layers of sandy silt, silt, and/or silty gravel (Farallon 2009c). Logs of borings and monitoring well construction diagrams are included in Appendix A.

Two groundwater-bearing zones separated by a discontinuous layer of sandy silt and silty gravel that is up to 30 feet thick in some portions of the Site were identified at the Site. A shallow water-bearing zone that ranges in thickness from 8 to 20 feet and appeared to be discontinuous, under predominantly perched conditions, and largely unconfined was encountered at depths ranging from approximately 5 to 40 feet below ground surface (bgs) due to variations in the ground surface elevations across the Site. A deep water-bearing zone that ranges in thickness from 46 to 60 feet and transitions from confined conditions in the east to unconfined conditions in the central portion of the Site was encountered across the Site at depths ranging from approximately 28 to 72 feet bgs. Three cross sections from the RI/FS Report depicting the shallow and deep water-bearing zones are included in Appendix B.

The groundwater surface elevations calculated for remediation and monitoring wells installed in the shallow and deep water-bearing zones are included in Tables 1 and 2. The groundwater elevations for the top of the shallow water-bearing zone indicate a groundwater surface depression near the central portion of the Site (Figure 3). The general groundwater flow direction is radial toward the groundwater surface depression, and is generally north-northeast in the area proximate to AOC 4 and west-southwest in the area proximate to AOC 5. Groundwater flow direction in the deep water-bearing zone ranged from the northwest in the southern portion of the Site to the northeast in the northern down-gradient portion of the Site (Figure 4).

A leaky aquitard consisting of sandy silt and silty gravel with sand sediments separates the shallow water-bearing zone from the deep water-bearing zone (Appendix B). A deeper aquitard consisting of silt and silty gravel sediments was encountered at the base of the deep water-bearing zone in a number of monitoring wells at the Site. This aquitard generally separates the deep water-bearing zone from a regional aquifer that provides water for the water-supply well used for industrial processes at the Site. The groundwater flow direction of the regional aquifer at the Site has not been determined.

Analytical data from the RI showed that shallow soil in AOC 1, AOC 2, and AOC 3 was impacted by the concentrations of DRO and/or ORO exceeding MTCA Method A cleanup levels (Figure 2). The data also showed that shallow groundwater was impacted by DRO detected at concentrations exceeding the MTCA Method A cleanup level in groundwater samples collected in AOC 1; petroleum hydrocarbons were not detected in groundwater samples collected in AOC 2 or AOC 3.

TCE was not detected at concentrations at or exceeding the laboratory reporting limits in soil samples collected in AOC 4 (Table 3). Groundwater analytical data from the RI showed that dissolved-phase concentrations of TCE and the associated degradation compounds were less than MTCA Method A cleanup levels in the shallow water-bearing zone at AOC 4. However, TCE was detected at concentrations exceeding the MTCA Method A cleanup level in groundwater samples collected from the deep water-bearing zone in AOC 4 (Figure 2). Concentrations of TCE were found to be the highest in the approximate middle of the deep water-bearing zone, and were reported non-detect near the base of the deep water-bearing zone. TCE was detected at a low concentration less than the MTCA Method A cleanup level in groundwater samples collected from an up-gradient monitoring well proximate to the southern Site property boundary, indicating that there is contribution of TCE from an unidentified off-Site source.

TCE was detected at low concentrations well below the MTCA Method A cleanup level in groundwater samples collected from the supply well used for industrial process at the Site that is screened in the regional water-bearing zone below the deep water-bearing zone. The lateral and vertical extent of TCE concentrations exceeding the MTCA Method A cleanup level in groundwater in the deep water-bearing zone had been sufficiently characterized by the monitoring well network installed during the RI.

The results from the data collected to evaluate the geochemical conditions of groundwater amenable to natural attenuation of TCE conducted as part the RI indicated that subsurface groundwater conditions were predominantly aerobic, with few or no prevalent reducing conditions that are necessary to support degradation of TCE in AOC 4. The results indicated that naturally occurring biodegradation is not prevalent at the Site.

TCE concentrations have been attenuating over time. Farallon has concluded that the primary natural attenuation processes prevalent likely are advection, sorption, volatilization, dilution, and dispersion. According to WAC 173-340-360(2)(g), dilution and dispersion can be relied on as a cleanup action only if the incremental costs of active remedial measures over the costs of dilution and dispersion grossly exceed the incremental degree of benefits of active remedial measures over the benefits of dilution and dispersion.

Elevated pH and concentrations of arsenic and lead have been detected in groundwater samples collected from the shallow water-bearing zone in AOC 5, located in the northeastern portion of the Site in the area of fill material that may have been placed in contact with groundwater (Figure 2). Neither arsenic or lead was detected at concentrations exceeding MTCA Method A cleanup levels in the soil samples collected from borings or test pits advanced in that area (Table 4). Elevated pH ranging from 9 to 9.5 and low oxidation-reduction potential (ORP) typically ranging from -100 to -200 millivolts were consistently measured in groundwater at shallow water-bearing zone monitoring well MW-12, suggesting that the leaching of naturally occurring arsenic and lead into groundwater could be occurring. pH measured at other monitoring wells was near neutral, typically ranging from approximately 6 to 7.5.

Scientific literature suggests that the solubility of arsenic and lead is high at pH below 5, low at pH from approximately 5 to 8, and high at pH above 9 (Al-Abed, S. R. et al. 2006; The University of Maine 2014; Conner, J.R. 1990). The process is further enhanced by reducing conditions (negative ORP). Farallon concludes that the elevated pH and negative ORP may be the result of fill material in contact with groundwater that may have elevated the pH and resulted in leaching of arsenic and lead to shallow groundwater in AOC-5.

The results from the RI confirmed that COCs detected in soil and/or groundwater at concentrations exceeding MTCA cleanup levels include DRO, ORO, TCE, arsenic, and lead. Likely sources of DRO and ORO to soil and/or groundwater include spills, leaks, and drips associated with the storage and distribution of petroleum products, and/or maintenance of equipment and vehicles in AOC 1, AOC2, and AOC 3. Sources of TCE to soil and groundwater are attributed to operations associated with the former WSDOT testing laboratory in AOC 4. The source of arsenic and lead in groundwater is attributed to fill material in AOC 5 that likely resulted in leaching arsenic and/or lead from the soil to groundwater. Concentrations of COCs exceeding MTCA Method A cleanup levels were found not to migrate off the boundaries of the Site.

Preliminary exposure risk assessment and Terrestrial Ecological Evaluation (TEE) were conducted for the Site during the RI. There are no completed exposure pathways to terrestrial ecological receptors for the Site COCs, and the Site qualifies for a TEE exclusion because there is less than 1.5 acres of contiguous undeveloped land on the Site or within 500 feet of any area of the Site (WAC 173-340-7491(1)(c)(i)). Because soil and groundwater represent the highest probable risk to human health and the environment based on the exposure pathway analysis performed, these media were the target media for the cleanup action.

A FS conducted for the Site identified and evaluated technically feasible cleanup action alternatives, and selected a preferred cleanup action for the Site that meets the MTCA threshold requirements. The technically feasible cleanup action alternatives were evaluated considering the nature and extent of contamination, practicability, and specific Site conditions. The selected cleanup alternatives included (Farallon 2009c):

- Removal and disposal or recycling of soil with DRO and ORO at concentrations exceeding MTCA cleanup levels within practicable excavation limits in areas AOC 1, AOC 2, and AOC 3;
- Source removal with enhanced aerobic bioremediation for groundwater containing concentrations of DRO and ORO exceeding MTCA cleanup levels in AOC 1;
- AS/SVE for groundwater containing TCE at concentrations exceeding the MTCA cleanup level in AOC 4; and
- Groundwater monitoring for low concentrations of arsenic or lead detected in groundwater in the shallow water-bearing zone in AOC 5.

The cleanup action alternatives selected for AOC 1 through AOC 4 and detailed in the *Engineering Design Report, Woodworth & Company, Inc., Lakeview Facility, 2800 104th Street South, Lakewood, Washington 98499* dated January 20, 2010, prepared by Farallon (EDR) were expected to provide a permanent reduction in the toxicity, mobility, and volume of hazardous substances in soil and groundwater at the Site to the maximum extent practicable. These alternatives were found by Farallon and confirmed by Ecology (2010 and 2011) to be technically appropriate and implementable given the nature and extent of the contamination, soil and groundwater conditions, and current and likely future uses of the Site.

2.4.4 Soil Excavation Cleanup Action—Farallon 2010-2011

The soil excavation cleanup action completed at the Site from September through November 2010 removed soil with DRO and ORO at concentrations exceeding MTCA Method A or B cleanup levels (Farallon 2011c), in accordance with the RI/FS Report, the EDR, and the Ecology (2011) opinion letter. The soil excavation cleanup action included excavation and off-Site disposal of soil with DRO and ORO at concentrations exceeding cleanup levels from AOC 1, AOC 2, and AOC 3; dewatering of the excavation in AOC 1; and groundwater monitoring in AOC 1, AOC 2, and AOC 3.

A total of 7,985 tons of soil with DRO and/or ORO at concentrations exceeding MTCA Method A or Site-specific Method B cleanup levels was removed from the Site and disposed of at the LRI Landfill in Puyallup, Washington. Groundwater and stormwater runoff present at the base of the excavation in AOC 1 was pumped and transferred into aboveground storage tanks. Approximately 80,800 gallons of wastewater from the storage tanks was disposed of at the Emerald Recycling facility in Seattle, Washington.

The analytical results for the confirmation soil samples collected from the soil excavation confirmed that the MTCA Method A soil cleanup level for DRO and ORO in soil for unrestricted land use had been met at the base and sidewalls of the excavations in AOC 1 and AOC 2. The analytical results for the confirmation soil samples collected from AOC 3 confirmed that the Site-specific MTCA Method B soil cleanup levels calculated for AOC 3 (Farallon 2010c) and approved by Ecology (2010b and 2011b) have been met at the base and sidewalls of the excavation.

The excavation of soil with DRO and/or ORO at concentrations exceeding cleanup levels has resulted in permanent removal of the source of petroleum hydrocarbons in groundwater at the Site. As agreed to by the representatives of Ecology; Woodworth Capital, Inc.; Miles Sand & Gravel, Inc.; and Farallon at a meeting on February 16, 2011, groundwater samples were collected from monitoring wells present in AOC 1 for three consecutive quarters and AOC 3 for two consecutive quarters following the February 2011 groundwater monitoring and sampling event. It was agreed that if DRO and ORO were not detected at concentrations at or exceeding the laboratory reporting limits in groundwater samples collected during those quarterly monitoring events in 2011, Ecology would concur that no further cleanup in AOC 1 and AOC 3 is necessary.

DRO and ORO were not detected at concentrations at or exceeding laboratory reporting limits in groundwater (Table 4); therefore, the cleanup of soil and groundwater containing petroleum hydrocarbons in AOC 1, AOC 2, and AOC 3 at the Site has been completed. Laboratory analytical reports for groundwater samples that were not previously provided to Ecology are included in Appendix C.

2.4.5 Air Sparge/Soil Vapor Extraction Cleanup Action—Farallon 2011-2013

The AS/SVE system was designed, installed, and operated in accordance with the EDR and Ecology (2010 and 2011) to reduce concentrations of TCE and its degradation products in groundwater in AOC 4. The AS component of the remediation system injected compressed air into the deep water-bearing zone to strip and vaporize HVOCs from groundwater to soil vapor. The SVE component of the remediation system recovered the soil vapor with HVOCs in the vadose zones overlying the deep and the shallow water-bearing zones and discharged the soil vapor to the atmosphere. The AS/SVE system was constructed between September 2009 and April 2010, and included the installation of 10 AS wells in the deep water-bearing zone and 12 SVE wells in the vadose zones of the shallow and deep water-bearing zones.

Analytical results for groundwater samples collected from borings and remediation wells during the installation of the AS/SVE remediation system allowed refinement of the lateral extent of TCE in the deep water-bearing zone and indicated that shallow water-bearing zone groundwater had been impacted by TCE releases proximate to the reported location of the former WSDOT mobile laboratory where TCE was detected exceeding the MTCA Method A groundwater cleanup level. Farallon modified the engineering design for AS/SVE system to include treatment of the shallow vadose zone by SVE.

Start-up activities were performed in November 2010. The AS/SVE system has operated as designed, and monthly operation and maintenance visits were performed to assess whether modifications to operating parameters are necessary. Farallon (2011a) monitored air emissions to confirm compliance with the Puget Sound Clean Air Agency regulations and determined that no emissions treatment was required for operation of the remediation system at the Site, based on the calculated yearly rate of TCE discharge to the atmosphere. The AS/SVE remediation system was operated continuously from November 2010 through February 2013 in an effort to reduce the concentrations of TCE in shallow and deep water-bearing zone groundwater. Operation of the SVE component of the remediation system continued through 2013 until approximately September 2014.

Progress of TCE remediation in groundwater in AOC 4 had been tracked over time by collecting and analyzing groundwater samples from five key monitoring wells, which include shallow water-bearing zone remediation well SVE-12 (Figure 5) and deep water-bearing zone monitoring wells MW-2, MW-14, MW-20, and MW-22 (Figure 6). The highest TCE concentrations in the shallow water-bearing zone have been detected in remediation well SVE-12; the highest TCE concentrations in the deep water-bearing zone have been detected in monitoring well MW-20 (Table 6; Appendix C). Concentrations of TCE in groundwater have decreased as follows by the operation of the AS/SVE system:

- Shallow water-bearing zone remediation well SVE-12—from 10 µg/l in April 2010 to 6.4 µg/l in June 2013;
- Deep water-bearing zone monitoring well MW-2—from 14 µg/l in August 2008 to 4.6 µg/l in June 2013;
- Deep water-bearing zone monitoring well MW-14—from 30 µg/l in November 2010 to 10 µg/l in June 2013;
- Deep water-bearing zone monitoring MW-20—from 33 µg/l in September 2009 to 20 µg/l in June 2013; and
- Deep water-bearing zone monitoring MW-22—from 29 µg/l in October 2009 to 12 µg/l in June 2013.

The decrease in concentrations of TCE in groundwater over time is graphically depicted on Chart 1. For consistency, data from April 2010 collected by GeoEngineers, Inc. were not used in concentration trend analysis. The laboratory analytical results for the June 2013 monitoring event show a decrease in TCE concentrations in groundwater in five key shallow and deep water-bearing zone monitoring wells where concentrations of TCE were detected prior to start-up of the AS/SVE system. Chart 1 includes exponential regression trend lines for TCE concentrations in each of the five monitoring wells to estimate the time when TCE concentrations would decrease to less than the MTCA Method A cleanup level of 5 µg/l. Chart 1 shows that TCE concentrations may reduce to less than the cleanup level in approximately 12 years.

Although concentrations of TCE in groundwater have been reduced by the operation of the AS/SVE remediation system, a trend analysis shows that the rate of decrease in concentrations of TCE in groundwater has slowed significantly. Based on Farallon's experience in designing, installing, and operating similar treatment systems throughout the Pacific Northwest, the rate of reduction of TCE concentrations in groundwater will decrease further, exhibiting asymptotic behavior as TCE concentrations approach the low cleanup level for TCE in groundwater. Concentrations of TCE are unlikely to decrease to less than the cleanup level in a reasonable time frame (Chart 1).

Groundwater sampling conducted at the Site prior to the onset of active cleanup has demonstrated that concentrations of TCE decreased over time by natural processes such as degradation, advection, sorption, volatilization, dilution, and/or dispersion. Farallon expects that natural attenuation of TCE will continue following shut-down of the AS/SVE remediation system, and that TCE concentrations in groundwater eventually will reach the MTCA Method A cleanup level. The continued operation of the AS/SVE system is not practicable to meet the MTCA cleanup level for TCE in a reasonable time frame.

2.4.6 Subsurface Investigation in AOC 4—Farallon 2012-2013

Farallon conducted a subsurface investigation in phases between July 2012 and January 2013 to further refine the location of the source area of TCE to shallow and deep water-bearing zones and to assess whether an up-gradient source of TCE contributes to the groundwater contamination that exists at the Site. The subsurface investigation included advancement of borings B2 through B7, and B9 (Figure 7) using a direct-push drilling rig, installation of monitoring wells MW-25 through MW-29 (Figures 8) using a hollow-stem auger rig, and collection and laboratory analysis of soil samples from borings and groundwater samples from monitoring wells. Total depth of borings B2 through B7, and B9 advanced for the collection of soil samples ranged from 9 to 14.5 feet bgs (Appendix A). Monitoring well borings MW-25 through MW-29 were advanced to depths ranging from approximately 10 to 60 feet bgs.

TCE was detected at concentrations less than the MTCA Method A cleanup level in soil samples collected from boring B6 at 2.1 feet bgs and boring B9 at 7.0 feet bgs, from monitoring well borings MW-25 at 15.0, 18.0, 25.0, and 35.0 feet bgs, and from monitoring well MW-26 at 10.0 feet bgs (Table 3; Appendix C). TCE or its degradation products were not detected at or exceeding the laboratory reporting limits in soil samples collected from borings B2 through B7 or B9; or from monitoring well borings MW-26, MW-28, or MW-29.

Monitoring well MW-26 in the area of the former thermal desorption plant and monitoring well MW-27 along the southern Site boundary were completed in the shallow water-bearing zone (Figure 5). Monitoring well MW-25 adjacent to monitoring well MW-26, monitoring well MW-28 adjacent to monitoring well MW-27, and monitoring well MW-29 west of the former thermal desorption plant area and north of the property boundary were completed in the deep water-bearing zone (Figure 6). TCE was detected at a concentration slightly exceeding the MTCA Method A cleanup level in the groundwater sample collected from monitoring well MW-25 in

August 2012 (Table 6; Appendix C). However, TCE was detected at concentrations less than the MTCA Method A cleanup level during the subsequent groundwater sampling of monitoring well MW-25 in September 2012 and June 2013. TCE was not detected at or exceeding MTCA Method A cleanup levels in the groundwater samples collected from up-gradient shallow water-bearing zone monitoring wells MW-26 or MW-27 or from deep water-bearing zone monitoring wells MW-28 or MW-29.

The results from this subsurface investigation confirmed that multiple sources of TCE likely contribute to groundwater quality in the shallow and deep water-bearing zones. The primary on-Site source of TCE related to the operation of the former WSDOT mobile testing laboratory is in the area of the highest concentrations of TCE detected in groundwater at monitoring well MW-20 and remediation well SVE-12, and is not present in the area south and up-gradient of monitoring wells MW-25 or MW-26. The secondary source of TCE is up-gradient and off-Site. The contribution of TCE to shallow and deep water-bearing zone groundwater is minimal, and at concentrations less than the MTCA Method A cleanup level.

Based on the subsurface investigation and groundwater monitoring results, the AS/SVE system was installed in the area that targeted the on-Site source of TCE. The operation of the AS/SVE system over the past 2 years has significantly reduced the source of TCE to groundwater.

2.4.7 Groundwater Monitoring and Subsurface Investigation in AOC 5—Farallon 2008-2014

In addition to groundwater monitoring in AOC 1, AOC 3, and AOC 4 described in the prior sections of this report, Farallon completed ten groundwater monitoring and sampling events at shallow water-bearing zone monitoring well MW-12 in AOC 5 between October 2008 and June 2013 and one additional groundwater monitoring event as part of a subsurface investigation conducted in September and October 2014 (Table 7). Groundwater at monitoring well MW-12 was monitored in accordance with the Ecology (2011) opinion letter due to the presence of arsenic and lead at concentrations slightly exceeding the MTCA Method A cleanup levels of 5 and 15 μg/l, respectively.

The subsurface investigation was conducted in to address comments from Ecology in an e-mail dated March 7, 2014 that noted sufficient characterization of arsenic and lead in groundwater in AOC 5 was necessary to comply with requirements for an RI in accordance with MTCA. The subsurface investigation included installation of three monitoring wells up-, cross-, and down-gradient of monitoring well MW-12 and collection of groundwater samples for laboratory analysis to evaluate the nature and extent of arsenic and lead in shallow groundwater and to investigate whether a source of arsenic and lead exists off-Site and up-gradient of the Site (Figure 8). Results of the subsurface investigation were summarized in a letter provided to Ecology (Farallon 2014).

The groundwater samples submitted for analysis for total arsenic and total lead were turbid, and are considered not representative of metal concentrations in groundwater, as suspended solids in groundwater often yield erroneous results for total metals. A significant difference between the concentrations detected in total metals and dissolved metals was reported (Table 7). Therefore, the filtered groundwater samples submitted for dissolved arsenic and lead are considered representative of groundwater conditions for the Site.

The up-gradient easterly to northeasterly extent of dissolved arsenic and lead in shallow groundwater is defined by the analytical results for the groundwater sample collected from monitoring well MW-32, which were reported non-detect for dissolved arsenic and lead (Figure 9). The down-gradient westerly to southwesterly extent of dissolved arsenic and lead in shallow groundwater is defined by the lack of water in monitoring well MW-30 and the discontinuity of the shallow groundwater-bearing zone.

Extensive soil sampling during the RI and the recent subsurface investigation did not identify the source of arsenic and lead to shallow groundwater (Table 4). The analytical results for groundwater samples suggest that the source of arsenic and lead is more likely than not located within the Site property boundaries associated with the historical placement of fill in contact with shallow groundwater, resulting in elevated pH and reducing ORP conditions and subsequent leaching of lead and arsenic to shallow groundwater in AOC 5.

The vertical and down-gradient extent of arsenic and lead in groundwater is defined by the non-detect analytical results for a groundwater sample collected from monitoring well MW-12B that is screened in the deeper water-bearing zone, as illustrated by east-west trending Cross Section D-D’ depicted on Figure 10. The groundwater flow direction for the deep groundwater-bearing zone is northeast in this portion of the Site. Based on the results of the investigation conducted in September and October 2014, Farallon concluded that the nature and extent of arsenic and lead in groundwater is sufficiently characterized to develop and recommend a final cleanup alternative by institutional controls to address residual contamination at the Site.

The concentrations of arsenic detected in groundwater samples collected from monitoring well MW-12 decreased to less than the federal drinking water standard of 10 μg/l and exceeded the MTCA Method A cleanup level of 5 μg/l. Concentrations of lead exceeded the MTCA Method A cleanup level of 15 μg/l only once during the past six groundwater monitoring and sampling events. Dissolved arsenic and lead concentrations in groundwater over time are graphically depicted on Chart 2. Chart 2 includes regression trend lines for dissolved arsenic and lead concentrations at monitoring well MW-12 to estimate the time when arsenic and lead concentrations would decrease to less than MTCA Method A cleanup levels. Chart 2 shows that arsenic concentrations may decrease to less than the cleanup level in approximately 2 years. It appears that total arsenic and lead concentrations are stable to reducing over time.

3.0 VAPOR INTRUSION ASSESSMENT

The Tier I Vapor Intrusion assessment was conducted by Farallon to evaluate the potential for migration of VOCs from soil gas into potential future buildings through the floor slab at concentrations exceeding the MTCA Method B cleanup level for indoor air as defined in Table B-1 of the Ecology Draft *Guidance for Evaluating Soil gas Intrusion in Washington State: Investigation and Remediation, Publication No. 09-09-047* dated October 2009 (Draft Vapor Intrusion Guidance). A Tier I Vapor Intrusion assessment evaluates whether a potential exists for exposure to TCE vapors in an industrial or commercial building that might be constructed after active cleanup by AS/SVE and Site reclamation that includes placing up to 30 feet of clean fill on top of the existing ground surface at the Site.

No buildings designed for human occupancy are currently present at or near the area of TCE contamination in AOC 4 (Figure 2); therefore, no completed exposure pathway exists for indoor air. The Site is zoned industrial, with additional restrictions for building heights due to aircraft take-offs and landings at the nearby Joint Base Lewis McChord.

The Tier 1 screening assessment developed Site-specific groundwater screening levels that would be protective of the indoor air exposure pathway for a commercial exposure scenario using the Johnson and Ettinger vapor intrusion model (JEM) presented in the U.S. Environmental Protection Agency (EPA) (2012) online tool in accordance with the Draft Vapor Intrusion Guidance. Farallon compared the concentrations of TCE detected in groundwater in the shallow and deep water-bearing zones to JEM-generated groundwater screening levels protective of indoor air exposure to TCE in a commercial setting. The process for generating the groundwater screening levels for TCE that are protective of indoor air exposure in commercial setting included:

- Calculating commercial MTCA Method B indoor air cleanup levels for TCE;
- Developing the groundwater to indoor air attenuation factors to estimate concentrations of TCE in indoor air from JEM; and
- Calculating groundwater screening levels that are protective of the MTCA Method B indoor air cleanup level.

A detailed description of assumptions and processes used in the calculations is included in Appendix D. The groundwater screening level concentrations predicted by JEM to be protective of MTCA Method B indoor air cleanup levels for commercial exposure scenario are:

- 27.6 µg/l for TCE in shallow water-bearing zone remediation well SVE-12; and
- 30.6 µg/l for TCE in deep water-bearing zone monitoring well MW-20.

The maximum concentration of TCE detected in groundwater samples collected from shallow water-bearing zone remediation well SVE-12 since September 2009 was 15 µg/l, which is less than the groundwater screening level concentration of 27.6 µg/l predicted by JEM to be protective of the MTCA Method B indoor air cleanup levels calculated for the commercial exposure scenario (Table D-2). The current maximum concentration of TCE detected in groundwater samples collected from deep water-bearing zone monitoring well MW-20 is 20 μg/l, which is less than the groundwater screening level concentration of 30.6 μg/l predicted by JEM to be protective of the MTCA Method B indoor air cleanup levels calculated for commercial exposure scenario (Table D-2). The Site-specific Tier I Vapor Intrusion assessment for the Site confirms that the concentrations of TCE in groundwater are protective of the vapor intrusion pathway for the commercial exposure scenario at any potential future commercial buildings that could be constructed on the Site following completion of the reclamation activities.

4.0 TECHNICAL ELEMENTS FOR THE CLEANUP ACTION

The results of previous investigations and remedial actions were used to identify the technical elements for the cleanup action at the Site, described herein. This section summarizes the document the following elements in accordance with WAC 173-340-200:

- COCs;
- Sources of contamination;
- Media of concern;
- Nature and extent of contamination in soil and/or groundwater;
- Fate and transport of constituents of concern;
- Potential exposure pathways and scenarios; and
- Cleanup standards.

These elements are described for the Site in the following sections.

4.1 CONSTITUENTS OF CONCERN

COCs for the Site for this FFS/DCA Report are TCE, arsenic, and lead that were detected in groundwater at concentrations exceeding MTCA Method A cleanup levels. As discussed previously, cleanup of petroleum hydrocarbons at the Site has been completed, and petroleum hydrocarbons are no longer COCs for the Site.

4.2 SOURCES OF CONTAMINATION

Shallow and deep groundwater at the Site were impacted by the releases of TCE attributed to past operations and practices of using TCE in the asphalt-testing process by a former WSDOT mobile testing laboratory. WSDOT personnel reportedly disposed of spent TCE by pouring the substance directly into the soil on the Site. The exact location of the former WSDOT mobile laboratory is not known, however its likely location was reportedly the area between the asphalt plant and the roofing shredder building in AOC 4 (Figure 2).

A contribution of TCE at concentrations less than the MTCA Method A cleanup level to shallow and deep water-bearing zones from off-Site sources is confirmed by the analytical results for groundwater samples collected from up-gradient monitoring wells installed proximate to the southern Site property boundary. The potential off-Site sources include the Joint Base Lewis McChord facility and/or the former Cascade Demolition Landfill/Cascade Asphalt Paving Company (Farallon 2009a).

The source of arsenic and lead to shallow groundwater is attributed to the historical placement of fill material in contact with groundwater in AOC 5 (Figure 2). The fill material may have created geochemical reducing conditions with high pH in the shallow water-bearing zone that resulted in leaching of arsenic and lead at concentrations exceeding cleanup levels in shallow groundwater.

4.3 MEDIA OF CONCERN

Results of the investigations confirm that surface water is not a medium of concern for the Site (RI/FS Report).

Indoor air is not considered a medium of concern because TCE concentrations detected in soil and groundwater do not extend beneath any existing buildings or structures designed for human occupancy at the Site and a large portion of the area of the TCE plume in groundwater is currently covered by impermeable asphalt pavement. The Final Reclamation Plan (Appendix E) for the Lakeview Facility includes placing up to 30 feet of clean fill in the area with residual TCE concentrations in groundwater, which will further impede soil gas with potential TCE concentrations from entering ambient air. As discussed in Section 3, Vapor Intrusion Assessment, the results of the Tier I Vapor Intrusion assessment for the scenario where a commercial building is constructed in the area of the TCE groundwater plume following the completion of the Lakeview Facility reclamation confirm that the concentration of TCE detected in groundwater is protective of the vapor intrusion pathway. Details of the indoor air simulation calculations and results are presented in Appendix D.

TCE, arsenic, or lead has not been detected at concentrations exceeding MTCA Method A cleanup levels in soil during extensive sampling of soil in AOC 4 and AOC 5. Therefore, soil is not a medium of concern to human health by potential exposure through direct contact. Farallon concludes that the reducing conditions and elevated pH in groundwater in AOC 5 have likely caused the leaching of arsenic and lead to groundwater as a direct result of fill material at the Site in AOC 5. Soil is retained as a medium of concern for the protection of groundwater in AOC 5 at the Site.

Groundwater is a medium of concern due to the concentrations of TCE, arsenic, and lead exceeding MTCA Method A cleanup levels detected in groundwater samples collected from Site monitoring wells. TCE was detected in groundwater at concentrations exceeding the MTCA Method A cleanup level in both the shallow and deep water-bearing zones. Arsenic and lead were detected at concentrations exceeding MTCA Method A cleanup levels in groundwater in the shallow water-bearing zone in AOC 5 only.

4.4 NATURE AND EXTENT OF CONTAMINATION

This section presents a summary of the nature and extent of TCE, arsenic, and lead that exceed cleanup levels in the media of concern.

4.4.1 Soil

TCE, arsenic, or lead was not detected at concentrations exceeding MTCA Method A cleanup levels in soil samples collected at the Site (Tables 3 and 4). The extent of fill material that caused naturally occurring arsenic and lead to leach into shallow water-bearing zone groundwater is limited to the easternmost area of the Site in AOC 5 (Tacoma-Pierce County Health Department 2003). The vertical extent of fill material is estimated to the depth of up to 40 feet bgs in the northern portion of AOC 5.

4.4.2 Groundwater

The extent of TCE in groundwater is limited to an area on the Site proximate to the source area associated with the former WSDOT mobile testing laboratory (Figures 7 and 8). The direction of groundwater flow in the shallow water-bearing zone is north-northeast in this area of the Site (Figure 3). The down-gradient extent of TCE in shallow water-bearing zone groundwater is defined by the analytical results for groundwater samples collected from reconnaissance borings SVE-1, AS-1, and MW-22, and from monitoring wells MW-3 and MW-9 (Figure 5). The cross- and up-gradient extent of TCE in shallow water-bearing zone groundwater is defined by the analytical results for groundwater samples collected from remediation well SVE-3 and monitoring wells MW-1, and MW-26. TCE was not detected at concentrations exceeding the MTCA Method A cleanup level in groundwater samples collected from shallow water-bearing zone monitoring wells MW-5, MW-6, MW-10, MW-11, MW-12, MW-17A, or MW-27 installed proximate to the Site property boundaries.

The direction for groundwater flow in the deep water-bearing zone ranges from the northwest in the southern portion of AOC 4 to the northeast in the northern down-gradient portion of AOC 4 and the Site (Figure 4). The down-gradient extent of TCE in groundwater of the deep water-bearing zone is defined by the analytical results for groundwater samples collected from monitoring well MW-23 (Figure 6 and Table 6). The down-gradient extent of TCE in deep water-bearing zone groundwater is further defined by the analytical results from monitoring wells MW-9B and MW-12B proximate to the eastern Site property boundary. The analytical results for groundwater samples collected from monitoring wells MW-16, MW-18, MW-19, and MW-21 define the cross-gradient extent of TCE contamination in the deep water-bearing zone. The up-gradient extent of TCE contamination in the deep water-bearing zone is defined by the analytical results for groundwater samples collected from monitoring wells MW-25, MW-15, MW-28, and MW-29.

Off-Site sources of TCE that may be affecting groundwater in shallow and deep water-bearing zones on the Site are defined by the detection of TCE at concentrations less than the MTCA Method A cleanup level in up-gradient monitoring wells MW-1, MW-15, and MW-29 (Figure 6).

The vertical extent of concentrations of TCE exceeding the MTCA Method A cleanup level in groundwater is defined by the analytical results for groundwater samples collected from deep water-bearing zone monitoring well MW-14C and remediation well AS-1 (Figure 6, Appendix

B), and monitoring wells MW-9B and MW-12B along the down-gradient Site property boundary.

The extent of arsenic and lead at concentrations exceeding MTCA Method A cleanup levels in groundwater is limited to AOC 5 proximate to monitoring wells MW-12 and MW-31 (Figure 9). The direction of groundwater flow in the shallow water-bearing zone is west-southwest in this area of the Site (Figure 8). The down-gradient westerly to southwesterly extent of dissolved arsenic and lead in shallow groundwater is defined by the lack of water in monitoring well MW-30 and the discontinuity of the shallow groundwater-bearing zone. Neither arsenic nor lead was detected in groundwater samples collected from monitoring well MW-9 that is screened in the shallow water-bearing zone down-gradient to slightly cross-gradient of monitoring well MW-30. The up-gradient easterly to northeasterly extent of dissolved arsenic and lead in shallow groundwater is defined by the analytical results for the groundwater sample collected from monitoring well MW-32.

The vertical extent of arsenic and lead in groundwater is defined by the analytical results for a groundwater sample collected from monitoring well MW-12B that is screened in the deep water-bearing zone. If an interconnection exists between the shallow and the deep-bearing zones in the area west of monitoring wells MW-12 and MW-31, the vertical and down-gradient extent of arsenic and lead in groundwater is defined by a groundwater sample collected from monitoring well MW-12B that is screened in the deeper water-bearing zone, as illustrated by east-west trending Cross Section D-D’ depicted on Figure 10. The groundwater flow direction for the deep groundwater-bearing zone is northeast in this portion of the Site.

TCE, arsenic, and lead have not been detected in groundwater samples collected from monitoring wells down-gradient of the locations where these COCs are present at concentrations exceeding MTCA Method A cleanup levels in groundwater. TCE, arsenic, and lead concentrations in groundwater are reducing over time. Farallon concludes that the TCE, arsenic, and lead plumes are stable and reducing, and will not migrate off the Site.

4.5 CLEANUP STANDARDS

As defined in WAC 173-340-700, cleanup standards include establishing cleanup levels and the points of compliance at which the cleanup levels are to be attained. The cleanup standards for the Site have been established in accordance with WAC 173-340-700 through 173-340-760 to be protective of human health and the environment.

4.5.1 Cleanup Levels

The cleanup levels are the concentrations of TCE, arsenic, and lead that are to be met for each medium of concern at the points of compliance defined for the Site. The cleanup levels for TCE, arsenic, and lead in soil and groundwater are presented below.

4.5.1.1 Soil

The cleanup levels for soil at the Site are the MTCA Method A soil cleanup levels for unrestricted land use and the protection of groundwater for potable water use. The cleanup levels for the COCs in soil are:

- 0.03 milligrams per kilogram (mg/kg) for TCE;
- 20 mg/kg for arsenic; and
- 250 mg/kg for lead.

4.5.1.2 Groundwater

The cleanup levels for groundwater throughout the Site are the MTCA Method A cleanup levels for groundwater. The groundwater cleanup levels are as follows:

- 5 µg/l for TCE;
- 5 µg/l for dissolved arsenic; and
- 15 µg/l for dissolved lead.

4.5.2 Points of Compliance

Points of compliance are defined in WAC 173-340-200 as the locations where cleanup levels established in accordance with WAC 173-340-720 through 173-340-760 will be attained to meet the requirements of MTCA. Once the cleanup levels have been attained at the defined points of compliance, the Site is no longer considered a threat to human health or the environment.

4.5.2.1 Soil

The point of compliance at the Site for soil is established for protection of groundwater, which is defined as soil throughout the Site exceeding cleanup levels protective of groundwater (WAC 173-340-740[6][b]). TCE, arsenic, or lead has not been detected at concentrations exceeding MTCA Method A cleanup levels in soil; therefore, cleanup levels have been attained at the standard point of compliance for soil throughout the Site.

4.5.2.2 Groundwater

The standard point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest depth that potentially could be impacted by the TCE, arsenic, or lead throughout the Site (WAC 173-340-720[8][b]). The standard points of compliance for shallow water-bearing zone groundwater in AOC 4 are defined as remediation wells SVE-6 and SVE-12, and down-gradient monitoring well MW-3. The standard points of compliance for deep water-bearing zone groundwater in AOC 4 are defined as remediation well SVE-1 and monitoring wells MW-2, MW-14, MW-20, and MW-22, and down-gradient monitoring well MW-23.

The standard points of compliance for shallow water-bearing zone groundwater in AOC 5 are defined as monitoring wells MW-12 and MW-31, and down-gradient monitoring well MW-9.

A conditional point of compliance is applicable where it is not practicable to meet the cleanup level throughout the Site within a reasonable restoration time frame (WAC 173-340-720[8][c]). A conditional point of compliance is to be as close as practicable to the source of hazardous substances and within the Site boundary. The conditional point of compliance for the shallow water-bearing zone groundwater in AOC-4 is defined as monitoring well MW-3 located down-gradient of remediation wells SVE-12 and SVE-6 where TCE was encountered in shallow groundwater at concentrations exceeding the MTCA Method A cleanup level (Figures 3 and 5; Table 6).

The conditional point of compliance monitoring well MW-9 is located down-gradient of the area where arsenic and lead are encountered in shallow groundwater in AOC 5 at concentrations exceeding MTCA Method A cleanup levels. Neither arsenic nor lead has been detected at a concentration exceeding the MTCA Method A cleanup level for groundwater at the conditional point of compliance for the shallow water-bearing zone monitoring well MW-9 (Table 7).

The conditional points of compliance for the deep water-bearing zone groundwater at the Site is defined as monitoring wells MW-9B and MW-12B located down-gradient of the leading edge of the TCE plume in deep water-bearing zone groundwater and proximate to the eastern Site property boundary (Figure 11). TCE has not been detected at concentrations exceeding cleanup levels in groundwater samples collected from monitoring wells MW-9B or MW-12B during multiple groundwater monitoring events (Table 6).

Farallon understands that reclamation of the Site may include placing up to 30 feet of clean fill in the area of the conditional points of compliance for groundwater. Prior to any permanent filling of the area of the current conditional points of compliance for groundwater, Ecology will be contacted to discuss and seek concurrence for the placement of alternative conditional points of compliance, if concentrations of TCE, arsenic, and/or lead still exceed cleanup standards in groundwater at that time. Plans for the timing of the Site reclamation have not yet been finalized.

4.6 FATE AND TRANSPORT OF CONSTITUENTS OF CONCERN

Fate and transport of TCE in AOC 4 and arsenic and lead in AOC 5 are discussed in the following sections.

4.6.1 TCE in AOC 4

Surface releases and spills of TCE from operations of the former WSDOT mobile testing laboratory reportedly located west of the roofing-shredder building in AOC 4 impacted shallow groundwater present under a perched condition (Figure 5). TCE diffused vertically some distance into low-permeability soil (aquitard) beneath the shallow water-bearing zone (Appendix B). The dissolved-phase TCE plume has migrated vertically and impacted deep water-bearing zone groundwater in the areas where the aquitard was naturally leaking or had been breached by mining operations. The TCE plume exceeding cleanup level in the shallow water-bearing zone groundwater for the most part overlaps the area of TCE plume in the deep water-bearing zone, except that TCE plume in the deep water-bearing zone extends farther down-gradient in northeasterly direction (Figures 7 and 8).

TCE concentrations in shallow water-bearing zone groundwater proximate to the former WSDOT mobile testing laboratory and remediation well SVE-12 have been reduced by the remedial action performed to date. Comparison of the lateral extent of the TCE plume in the deep water-bearing zone from before the cleanup action began in November 2010 to the plume configuration in June 2013 shows a significant reduction in size and concentrations, as shown on Figure 6.

Groundwater sampling conducted at the Site prior to the onset of active cleanup has demonstrated that concentrations of TCE have been reduced over time by natural attenuation processes such as degradation, advection, sorption, volatilization, dilution, and dispersion. Farallon expects that natural attenuation of TCE will continue following shut-down of the AS/SVE remediation system, and that TCE concentrations in groundwater eventually will attenuate to less than the MTCA Method A cleanup level.

4.6.2 Arsenic and Lead in AOC 5

Arsenic or lead was not detected at concentrations exceeding MTCA Method A cleanup levels during extensive soil sampling in AOC 5 where fill that may be a potential source for arsenic and lead to groundwater in the shallow water-bearing zone had been placed. Farallon concludes that the high pH and negative ORP in shallow groundwater that may have been caused by fill in direct contact with groundwater likely resulted in leaching of naturally occurring arsenic and lead from fill to shallow groundwater.

Arsenic and lead have been detected in groundwater at concentrations exceeding MTCA Method A cleanup levels in monitoring wells MW-12 and MW-31 only. Concentrations of dissolved arsenic and dissolved lead in shallow water-bearing zone groundwater in AOC-5 have been stable to slightly decreasing over time. Shallow water-bearing zone groundwater is absent in the area down-gradient of monitoring wells MW-12 and MW-31. Arsenic and lead have not been detected in groundwater samples collected from monitoring well MW-9 located further down- to slightly cross-gradient or in the up-gradient monitoring well MW-32.

If an interconnection exists between the shallow groundwater-bearing zone and a deeper groundwater-bearing zone in the area west of monitoring wells MW-12 and MW-31, the vertical and down-gradient extent of arsenic and lead in groundwater is defined by the non-detect analytical results for a groundwater sample collected from monitoring well MW-12B that is screened in the deeper groundwater-bearing zone. The groundwater flow direction for the deep groundwater-bearing zone is northeast in this portion of the Site.

4.7 POTENTIAL EXPOSURE PATHWAYS

This section describes the assessment and conclusions pertaining to the exposure pathways at the Site. Identification of potential exposure scenarios has been used to evaluate technically feasible remediation technologies for the Site.

4.7.1 Soil-to-Groundwater Pathway

The fill in contact with groundwater has caused elevated pH in the groundwater, resulting in leaching of arsenic and lead from fill to groundwater; therefore, the soil-to-groundwater pathway is considered a completed pathway. Soil is not considered a medium of concern because concentrations of TCE, arsenic, or lead do not exceed the direct contact or MTCA Method A cleanup levels. The potential exposure pathway of direct contact via dermal contact with and/or ingestion to groundwater is the only remaining potential exposure pathway.

4.7.2 Groundwater Pathway

Potential exposure pathways for groundwater include the direct contact pathway, which comprises both the dermal contact and ingestion pathways by humans or biota. Two types of risk evaluations associated with exposure to TCE, arsenic, and lead in groundwater at the Site include terrestrial ecological risk and human health risk.

As discussed in Section 2.4.3, Remedial Investigation and Feasibility Study—Farallon 2009, the Site qualifies for a TEE exclusion based on the evaluation performed during the RI because there is less than 1.5 acres of contiguous undeveloped land on the Site or within 500 feet of any area of the Site based on the criteria for TEE exclusion (WAC 173-340-7491(1)(c)(i)).

Mitigating the potential human health risk associated with exposure to TCE, arsenic, and lead in the affected medium (groundwater) at the Site is the primary objective of the cleanup action. Farallon conducted a survey of potential receptors within a 0.5-mile radius of the Site during the RI (RI/FS Report). The results of the survey and the evaluation of potential receptors confirmed that the likelihood of a TCE groundwater plume at the Site reaching these potential receptors is negligible.

No water supply wells at or in the vicinity of the Site use groundwater as a potable water source and the use of groundwater as a potable water source is not allowed within the City of Lakewood (Ecology 2009a). The industrial water-supply well on the Site is used for industrial process water only and is not considered potable by the operators.

The shallow water-bearing zone groundwater is not used as a potable water source and is a non-potable resource as defined in WAC 173-340-720(2)(b)(i) due to insufficient yield of more than 0.5 gallon per minute. The deep water-bearing zone groundwater underlying the shallow water-bearing zone may qualify as a potential future source of potable water. However, because of the availability of a municipal water supply in the Site vicinity and the restriction on use of groundwater as a potable water supply, groundwater in the deep water-bearing zone at the Site or adjacent properties cannot be used as a potable water source.

5.0 FOCUSED FEASIBILITY STUDY

The purpose of this FFS is to develop and evaluate technically feasible cleanup action alternatives to facilitate selection of a final cleanup action at the Site in accordance with WAC 173-340-350(8). The FFS has screened potentially feasible remedial technologies and developed two Site-wide cleanup alternatives comprising technologies that are applicable at the Site and will achieve the requirements for cleanup actions set forth in MTCA.

The point of compliance for soil is defined in Section 4.5.2, Points of Compliance, as soil throughout the Site. TCE, arsenic, or lead has not been detected at concentrations exceeding cleanup levels in soil. The points of compliance for soil have been met throughout the Site.

The points of compliance for groundwater are defined in Section 4.5.2, Points of Compliance, as standard points of compliance and conditional points of compliance. The analytical results of groundwater samples confirm that the cleanup levels for TCE, arsenic, and lead in groundwater have been attained at the conditional points of compliance in shallow and deep water-bearing zone in AOC 4 and in shallow water-bearing zone in AOC 5.

The source of arsenic and lead to shallow groundwater is associated with the fill material in AOC 5, which created geochemical conditions in shallow groundwater that trigger leaching of arsenic and lead to groundwater at concentrations exceeding MTCA Method A cleanup levels in groundwater. Therefore, cleanup of fill material in AOC 5 is retained for consideration for this FFS.

The FFS evaluated two cleanup alternatives according to criteria provided in MTCA (WAC 173-340-360(2), Minimum Requirements for Cleanup Actions). The FFS identified a preferred cleanup alternative considered to present the highest degree of permanence to the maximum extent practicable according to the provisions of WAC 173-340-360(3)(e), Disproportionate Cost Analysis. The DCA uses a semi-quantitative procedure per WAC 173-340-360(3)(e)(ii), and guidance outlined in Ecology (2009a) to compare the cost of implementation with environmental benefit to identify which cleanup alternative is more practicable under MTCA.

5.1 EVALUATION OF FEASIBLE REMEDIATION TECHNOLOGIES

This section summarizes the identified remedial technologies that were screened to determine which would be effective, implementable, and cost-effective under Site conditions. The evaluation criteria used are those identified in WAC 173-340-360(3)(f) for determining whether a cleanup action used permanent solutions to the maximum extent practicable, summarized in Section 5.3.1, Evaluation Criteria. The results from the screening were used to select remedial technologies that were incorporated into technically feasible cleanup alternatives, which were evaluated according to MTCA threshold and other requirements defined in WAC 173-340-360(2).

Table 8 summarizes the response actions, technology types, and technology process options considered to be most effective and potentially implementable under Site conditions. Technology process options were evaluated and screened using a scoring methodology from 1 (least favorable) to 5 (most favorable). Technology evaluation scores were summed, enabling a ranking of technologies for application at the Site. Scoring for implementation cost was based on published sources and professional judgment, and was used to further distinguish technologies having similar overall rankings. If technologies are equally ranked, the lower-cost technology is preferred.

The rankings in Table 8 indicate that the top-ranked technologies retained for further consideration in the cleanup alternatives evaluation are:

- Institutional Controls;
- Treatment In-Situ—Chemical Oxidation;
- Treatment In-Situ—Air Sparging/Soil Vapor Extraction; and
- Excavation and Off-Site Disposal.

Table 8 includes a number of technologies that were not retained for inclusion in Site-wide cleanup alternatives. The basis for not retaining these technologies for further consideration as a cleanup alternative is briefly discussed below.

- **"No action" without institutional or engineering controls**. This alternative was not considered a viable cleanup approach as it would not meet the threshold requirement to be protective of human health and the environment. "No action" was not retained for further consideration.
- **Treatment In-Situ—Enhanced Anaerobic Bioremediation**. While implementable at the Site, this technology was deemed ineffective and was not retained for further consideration. The adequate injection of fluids is challenging due to the depth of groundwater with TCE contamination and the large volume of saturated soil and groundwater at the Site that requires treatment. The deep water-bearing zone is currently aerobic and very little degradation of TCE is occurring. Changing the geochemical characteristics of the deep water-bearing zone to anaerobic conditions to support enhanced bioremediation would require a large effort and multiple injections, which are not practicable.
- **Treatment In-Situ—Thermal Treatment**. While considered implementable in the areas of the Site where groundwater in shallow water-bearing zone requires treatment, this technology has a low score for implementability, high short-term risks, and high cost, and was not retained for further consideration. Installation of the required electrodes and associated cabling and controls would be disruptive to an operating facility and would present potential short-term risks to Site workers. Thermal treatment costs are high relative to other potential in-situ technologies.

- **Treatment In-Situ—Soil Solidification**. While implementable at the Site, this technology was not retained for further consideration as it has a low score for implementability and high cost. The technology involves excavation of fill material, mixing of the material with Portland Cement, and backfilling excavated areas with the fill-cement mixture. The transport and off-Site disposal of the fill material, and backfilling the excavation with clean soil is less expensive than the soil solidification alternative. Therefore, this alternative is not retained for further consideration.

5.2 CLEANUP ALTERNATIVES

Cleanup alternatives include 1) Institutional Controls and 2) Active Cleanup, which includes Air Sparge/Soil Vapor Extraction, Chemical Oxidation, and Excavation and Off-Site Disposal. These alternatives were retained from the technology screening and incorporated into the technically feasible cleanup alternatives summarized below.

5.2.1 Cleanup Alternative 1: Institutional Controls - AOC 4 and AOC 5

Cleanup Alternative 1—Institutional Controls would prevent exposure to TCE, arsenic, and lead in groundwater by implementation of an environmental Restrictive Covenant placed on the property deed to prohibit the use of groundwater as a potable water source at the Site. The environmental Restrictive Covenant would include health advisories and requirements for handling groundwater with TCE, arsenic, and lead at concentrations exceeding MTCA cleanup levels, if encountered.

Active remediation would not be conducted to address the TCE in groundwater in AOC 4 or arsenic and lead in groundwater in AOC 5; removal or in-situ treatment would not be conducted on fill that is potentially a source of arsenic and lead in groundwater. TCE concentrations in groundwater are expected to naturally attenuate over time. Arsenic and lead concentrations in groundwater are stable to reducing and at concentrations fluctuating above and below the federal drinking water standard and MTCA Method A cleanup level for groundwater, respectively. Cleanup Alternative 1 will be implemented in compliance with applicable federal, state, and local laws.

The objective of Cleanup Alternative 1 is to prevent human exposure to TCE, arsenic, and lead at concentrations exceeding MTCA Method A cleanup levels in groundwater. Cleanup Alternative 1 is implementable and technically feasible, and would protect human health and the environment at the Site. However, groundwater cleanup levels would not be met within a reasonable restoration time frame at the standard points of compliance for groundwater, which is throughout the Site. Concentrations of TCE, arsenic, and lead exceeding the Site cleanup level are presumed to remain in groundwater until reduced over the long term through natural degradation processes.

It is expected that implementation of Institutional Controls would meet the threshold requirements of MTCA. Empirical data from the Site confirm that concentrations of TCE, arsenic, and lead in groundwater in AOC 4 and AOC 5 are stable or reducing and will not result in concentrations of TCE, arsenic, or lead exceeding MTCA Method A cleanup levels at the conditional points of compliance for groundwater, defined as existing monitoring wells MW-3, MW-9, MW-9B, and MW-12B down-gradient of contaminated areas.

This alternative assumes that long-term groundwater monitoring at the conditional point of compliance monitoring wells and at six monitoring wells within the contaminant plumes in AOC 4 and AOC 5 will be required periodically (every 18 months initially) to ensure compliance with the provisions of the Environmental Covenant and to monitor progress of the natural attenuation of contaminants.

Cleanup Alternative 1 includes future industrial use of the Site and a protective environmental Restrictive Covenant will be recorded on the deed for the Site.

The estimated cost in 2015 dollars for Cleanup Alternative 1—Institutional Controls for both AOC 4 and AOC 5 is shown below.

	Low Estimate	High Estimate
Implementation	$24,027	$26,815
Monitoring and Interactions with Ecology	$30,338	$65,185
Total	$54,365	$92,000

The summary of estimated costs for Cleanup Alternative 1 is provided in Table 9. The overall restoration time frame is expected to be long.

5.2.2 Cleanup Alternative 2: Active Cleanup

Cleanup Alternative 2 involves active cleanup of soil and/or groundwater in AOC 4 and AOC 5 as follows:

- Cleanup of TCE in the shallow water-bearing zone in AOC 4 by chemical oxidation;
- Cleanup of TCE in the deep water-bearing zone in AOC 4 by AS/SVE; and
- Cleanup of arsenic and lead in the shallow water-bearing zone in AOC 5 by excavation and off-Site disposal of fill from AOC 5.

These technologies are further discussed below.

5.2.2.1 Treatment In-Situ: Chemical Oxidation - AOC 4

In-situ chemical oxidation technology involves injection of a chemical oxidant such as hydrogen peroxide, potassium permanganate, or sodium permanganate into groundwater to treat TCE in shallow groundwater. This technology is applicable to treat concentrations of TCE in the shallow water-bearing zone in AOC 4, but is not practicable to treat groundwater in the deep water-bearing zone due to the depth of TCE-affected groundwater, logistics for the delivery of chemical oxidant, and volume of chemical oxidant that would be required to treat the deep water-bearing zone.

This cleanup action alternative would protect human health and the environment and comply with cleanup standards by permanently reducing concentrations of TCE in shallow water-bearing zone groundwater. However, successful chemical treatment is dependent on adequate contact between the oxidant and the target compound (TCE), and injection of a sufficient amount of oxidant to oxidize naturally occurring organic compounds in soil as well as TCE. Due to dense soil conditions at the Site, the chemical oxidant injection in the shallow water-bearing zone will require installation of an injection trench up-gradient of the TCE-contaminated groundwater.

The assumptions used to evaluate Treatment In-Situ—Chemical Oxidation as part of Cleanup Alternative 2—Active Cleanup include the following:

- The extent of shallow water-bearing-zone groundwater with TCE at concentrations exceeding the cleanup level corresponds approximately to the area shown on Figure 5.
- The injection trench will be designed by a Farallon Professional Engineer licensed in the State of Washington.
- Soil excavated during installation of an injection trench will be disposed of as nonhazardous soil at a Subtitle D landfill under a Contained-In Determination from Ecology.
- Excavation backfill will consist of drain rock followed by a well-graded granular soil material suitable for standard construction use and compacted to meet acceptable compaction standards.
- One to three chemical oxidant injection events will be sufficient to reduce TCE in shallow groundwater to concentrations less than the cleanup level.
- Performance groundwater monitoring will be conducted 1 month after each of the chemical oxidant injection events to monitor the progress of the cleanup action. Up to three groundwater monitoring events conducted at four monitoring wells are assumed.
- Following completion of the last chemical oxidant injection event and performance groundwater monitoring event, an additional four quarters of conformational groundwater monitoring are assumed.
- The injection trench used for in-situ chemical treatment would require registration in the Ecology Underground Injection Control Program.

The estimated cost in 2015 dollars for Treatment In-Situ—Chemical Oxidation to treat the shallow water-bearing zone in AOC 4 as part of Cleanup Alternative 2—Active Cleanup is:

	Low Estimate	High Estimate
Project Management and Coordination	$ 8,670	$ 17,802
Cleanup Implementation	$ 87,380	$ 200,521
Closure, Monitoring, and Interactions with Ecology	$ 21,000	$ 22,000
Total	$ 117,051	$ 240,323

The summary of estimated costs for Treatment In-Situ—Chemical Oxidation to treat the shallow water-bearing zone in AOC 4 as part of Cleanup Alternative 2—Active Cleanup is provided in Table 9, with details provided in Appendix F. The estimated restoration time frame is 1 year for design, permitting, and implementation.

5.2.2.2 Treatment In-Situ; Air Sparging/Soil Vapor Extraction - AOC 4

Air sparging is an in-situ physical groundwater treatment that involves injecting pressurized air into the saturated zone below groundwater with TCE at concentrations exceeding MTCA Method A cleanup levels. As the injected air rises through the saturated zone, TCE in soil and/or groundwater volatilizes into the injected air. The air sparging is coupled with SVE, which removes the soil vapor with TCE for discharge to the atmosphere.

The AS/SVE system operated in AOC 4 from November 2010 through 2013 (the SVE component of the remediation system is still operating as of the date of this report). A significant reduction of TCE concentrations was observed in the groundwater samples collected from both the shallow and deep water-bearing zones. However, Farallon determined that the rate of decrease in concentrations of TCE in groundwater has slowed significantly, and that concentrations of TCE are unlikely to decrease sufficiently to meet the cleanup standards within a reasonable time frame. AS/SVE technology is retained for further evaluation as a cleanup alternative as part of Cleanup Alternative 2—Active Cleanup for treatment of deep water-bearing zone groundwater with concentrations of TCE present in AOC 4.

In-situ physical treatment of groundwater by AS/SVE can be enhanced by concurrent injection of ozone gas into the water-bearing zone with the AS treatment system. Ozone is a strong oxidant capable of destroying a wide range of volatile organic compounds, including TCE. Augmentation of AS/SVE technologies with ozone injection likely would accelerate the overall cleanup process and shorten the time frame of the cleanup action.

A potential disadvantage of AS/SVE for cleanup of TCE in groundwater includes implementability challenges due to the large lateral and deep vertical extent of the treatment area and the discontinuous nature of the subsurface conditions. A disadvantage of using ozone in conjunction with AS/SVE technologies is the higher costs that are associated with construction of the treatment system due to increased system complexity, and the likely increase in operation and maintenance costs.

The assumptions used to evaluate Treatment In-Situ—Air Sparging/Soil Vapor Extraction as part of Cleanup Alternative 2—Active Cleanup includes the following:

- The extent of deep water-bearing-zone groundwater with TCE at concentrations exceeding the cleanup level corresponds approximately to the area shown on Figure 6.
- Design AS/SVE remediation system improvements by a Farallon Professional Engineer licensed in the State of Washington to increase the rate of air sparging into the subsurface.
- AS/SVE remediation system improvements, which include purchase and installation of a new high-pressure, high-volume compressor capable of delivering sufficient compressed air to the subsurface.
- Installation of an additional SVE well in the area proximate to the former thermal desorption plant, and converting existing monitoring well MW-26 into an SVE well to accommodate the additional sparged air.
- Installation of aboveground piping to include two new SVE wells into the remediation well network.
- Construction of a shed encompassing the AS/SVE remediation system compound to reduce the wear and tear of equipment due to dust.
- The estimated cost for electrical power and monthly operation and maintenance visits.
- The estimated cost for one to three blowers and one to three compressors during the lifetime of the AS/SVE remediation system operation.
- An estimated 70 to 152 months may be required to operate the AS/SVE remediation system to reduce TCE in deep water-bearing zone to concentrations less than the cleanup level.
- Performance groundwater monitoring conducted quarterly to monitor the progress of remediation, followed by four consecutive quarters of confirmation groundwater monitoring.

The estimated cost in 2015 dollars for Treatment In-Situ—Air Sparging/Soil Vapor Extraction to treat the deep water-bearing zone in AOC 4 as part of Cleanup Alternative 2—Active Cleanup is:

	Low Estimate	High Estimate
Project Management and Coordination	$ 49,144	$ 106,676
Cleanup Implementation	$ 583,298	$ 1,301,451
Closure, Monitoring, and Interactions with Ecology	$ 31,000	$ 32,000
Total	$ 663,442	$ 1,440,127

The summary of estimated costs for Treatment In-Situ—Air Sparging/Soil Vapor Extraction as part of Cleanup Alternative 2—Active Cleanup is provided in Table 9, with details provided in Appendix F. The estimated restoration time frame is 6 to 13 years for design, permitting, and implementation.

The total estimated cost to treat both the shallow water-bearing zone by chemical oxidation and the deep water-bearing zone by AS/SVE in AOC 4 ranges from $780,493 to $1,680,450.

5.2.2.3 Excavation and Off-Site Disposal - AOC 5

Excavation and Off-Site Disposal involves excavating fill from AOC 5 for disposal at a Subtitle D-permitted landfill. Excavation below the groundwater level would require dewatering. This water would be temporarily contained on the Site, and disposed of at a permitted facility.

The objective of the Excavation and Off-Site Disposal component of Cleanup Alternative 2 for AOC 5 is to remove the source of arsenic and lead to groundwater and meet the cleanup levels for groundwater at the standard points of compliance within a short time period. Removal of fill would protect human health and the environment by permanently removing the source material that likely caused leaching of arsenic and lead to shallow groundwater at the Site. Excavation and Off-Site Disposal is not considered technically complex to implement. The short-term risks to human health and the environment include possible exposure to fill during excavation and material-handling activities.

The assumptions used to evaluate Excavation and Off-Site Disposal include the following:

- The extent of fill corresponds approximately to the areas shown on Figure 2.
- Total tonnage of fill is estimated at approximately 328,000 tons.

- The fill would be disposed of as nonhazardous waste at the LRI Landfill in Puyallup, Washington.
- There is sufficient area on the Site for materials management, including soil stockpiling and truck loading and off-loading activities. Permission would be granted by adjacent property owners for trucks and equipment access, as necessary.
- Backfill would consist of a well-graded granular soil material suitable for standard construction use, and would be compacted to meet acceptable compaction standards.
- Up to eight quarterly performance groundwater monitoring events and four quarters of confirmation groundwater monitoring events would be conducted.

The estimated cost in 2015 dollars for the Excavation and Off-Site Disposal alternative for treatment of arsenic and lead in the shallow water-bearing zone in AOC-5 as part of Cleanup Alternative 2—Active Cleanup is:

	Low Estimate	High Estimate
Project Management and Coordination	$ 1,348,822	$ 1,619,385
Cleanup Implementation	$ 16,833,271	$ 20,215,319
Closure, Monitoring, and Interactions with Ecology	$ 27,000	$ 27,000
Total	$ 18,209,093	$21,861,704

The summary of estimated costs for the Excavation and Off-Site Disposal alternative for treatment of arsenic and lead in the shallow water-bearing zone in AOC-5 as part of Cleanup Alternative 2 is provided in Table 9, with details provided in Appendix F.

The estimated restoration time frame is 1 year for design, permitting, and implementation, and an additional 1 to 3 years for confirmation groundwater monitoring and closure.

The overall cost for Cleanup Alternative 1—Institutional Controls ranges from approximately $54,000 to $92,000; the overall cost for Cleanup Alternative 2—Active Cleanup consisting of a combination of three technologies: 1) Treatment In-Situ—Chemical Oxidation; 2) Treatment In-Situ—Air Sparging/Soil Vapor Extraction; and 3) Excavation and Off-Site Disposal ranges from approximately $19 to $23.5 million.

5.3 CLEANUP ALTERNATIVES EVALUATION AND DISPROPORTIONATE COST ANALYSIS

The evaluation of each cleanup alternative is presented in the following sections. Table 7 provides the results of the evaluation according to the criteria listed below. Summary cost estimates developed for the two cleanup alternatives are provided in Table 8 and detailed in Appendix F.

5.3.1 Evaluation Criteria

The FFS considered the requirements under WAC 173-340-350 and the criteria defined in WAC 173-340-360(2) in screening potentially feasible cleanup alternatives for the Site. A cleanup alternative must satisfy the following threshold requirements, as specified in WAC 173-340-360(2)(a):

- Protection of human health and the environment;
- Compliance with cleanup standards;
- Compliance with applicable state and federal laws; and
- Provision for compliance monitoring.

Other requirements specified in WAC 173-340-360(2)(b) include:

- Use of permanent solutions to the maximum extent practicable, which involves the following elements specified in WAC 173-340-360(3)(f):
  - Protectiveness: Overall protectiveness of human health and the environment, including the degree to which existing risks are reduced, the time required to reduce risk at the facility and attain cleanup standards, risks at the Site resulting from implementing the alternative, and improvement of overall environmental quality.
  - Permanence: The degree to which the alternative permanently reduces the toxicity, mobility, or volume of hazardous substances, including the adequacy of the alternative in destroying the hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of waste treatment processes, and the characteristics and quantity of treatment residuals generated.
  - Effectiveness over the long term: Long-term effectiveness includes the degree of certainty that the alternative will be successful, the reliability of the alternative during the period of time that hazardous substances are expected to remain on the Site at concentrations that exceed cleanup levels, and the magnitude of residual risk with the alternative in place. The following types of cleanup action components, presented in descending order, may be used as a guide when assessing the relative degree of long-term effectiveness: reuse or recycling;

destruction or detoxification; immobilization or solidification; disposal on or off the Site in an engineered, lined, and monitored facility; isolation or containment with attendant engineering controls on the Site; and institutional controls and monitoring.

  - Management of short-term risks: The risk to human health and the environment associated with the alternative during construction and implementation, and the effectiveness of measures that will be taken to manage such risks. This criterion includes risks to workers at the Site resulting from implementation of the cleanup alternative.
  - Technical and administrative implementability: The ability to be implemented, including consideration of whether the alternative is technically feasible, administrative and regulatory requirements, permitting, scheduling, size, complexity, monitoring requirements, access for construction operations and monitoring, and integration with business operations at the Site.
  - Consideration of public concerns: Whether the community has concerns regarding the alternative and, if so, the extent to which the alternative addresses those concerns. This process includes concerns from individuals, community groups, local governments, federal and state agencies, or any other organization that may have an interest in or knowledge of the Site.
  - Cost: The cost to implement the alternative, including the cost of construction and anticipated long-term costs. Long-term costs include groundwater monitoring and reporting costs.
- Provision for a reasonable restoration time frame, which includes the following elements as specified in WAC 173-340-360(4)(b):
  - Potential risks posed by the Site to human health and the environment;
  - Practicability of achieving a shorter restoration time frame;
  - Current use of the Site, surrounding areas, and associated resources that are or may be affected by releases from the Site;
  - Availability of alternative water supplies;
  - Likely effectiveness and reliability of institutional controls;
  - Ability to control and monitor migration of hazardous substances from the Site;
  - Toxicity of the hazardous substances at the Site; and
  - Natural processes that reduce concentrations of hazardous substances and have been documented to occur at the Site or under similar Site conditions.

5.3.2 Evaluation Results

A summary of the evaluation of the threshold and other requirements for Cleanup Alternative 1—Institutional Controls and Cleanup Alternative 2—Active Cleanup consisting of a combination of three technologies: 1) Treatment In-Situ—Chemical Oxidation; 2) Treatment In-Situ—Air Sparging/Soil Vapor Extraction; and 3) Excavation and Off-Site Disposal is provided in Table 10. The evaluation was conducted in accordance with MTCA minimum requirements for cleanup actions per WAC 173-340-360(2) as summarized below.

5.3.2.1 Threshold Requirements

The alternatives evaluation summarized in Table 10 indicates that both Cleanup Alternative 1—Institutional Controls, and Cleanup Alternative 2—Active Cleanup meet the minimum threshold requirements for a cleanup action under WAC 173-340-360(2)(a). Cleanup levels would not be achieved at the standard point of compliance for groundwater in the short term under Cleanup Alternative 1—Institutional Controls.

5.3.2.2 Other Requirements

As defined in WAC 173-340-360(2)(b), a cleanup action must: 1) use permanent solutions to the maximum extent practicable; and 2) provide for a reasonable restoration time frame.

Permanent Solutions to the Maximum Extent Practicable

Per WAC 173-340-360(3)(f), the following criteria were considered for each of the cleanup alternatives under the requirement for a permanent solution to the maximum extent practicable. Table 10 summarizes the results of the evaluation for the "permanent solution to the maximum extent practicable" criterion. Table 10 presents scoring for each of the components of the "permanent solution to the maximum extent practicable" criterion on a scale of 1 to 10, with 10 being most favorable and 1 being least favorable. A mathematically derived MTCA Composite Benefit Score is presented in Table 10 as described in the table "Note". The derived scores were used in the DCA, described in Section 5.3.3, Disproportionate Cost Analysis.

Protectiveness

Cleanup Alternative 1—Institutional Controls would provide an effective level of protectiveness that relies on administrative controls (an environmental Restrictive Covenant) at the Site to prevent exposure to residual concentrations of TCE, arsenic, and lead exceeding cleanup levels.

Cleanup Alternative 2—Active Cleanup would achieve a high level of protectiveness as a result of a combination of remedial technologies for groundwater containing concentrations of TCE, arsenic, and lead that exceed cleanup levels.

Permanence

Cleanup Alternative 1—Institutional Controls would prevent exposure to impacted groundwater using administrative controls (an environmental Restrictive Covenant) until natural attenuation reduces the TCE, arsenic, and lead concentrations to less than cleanup levels. Cleanup Alternative 1 would maintain containment of TCE, arsenic, and lead beneath the Site by implementation of the environmental Restrictive Covenant that will be recorded on the property deed.

Cleanup Alternative 2—Active Cleanup would achieve a high level of permanence by remediating concentrations of TCE, arsenic, and lead exceeding cleanup levels using a variety of remedial technologies.

Long-Term Effectiveness

A prior cleanup action removed a substantial mass of TCE impacting the source area in AOC 4. Cleanup Alternative 2—Active Cleanup would provide effectiveness over the long term by permanently removing the residual mass of TCE in groundwater in AOC 4 and by permanently removing material that creates conditions in the shallow saturated zone to mobilize arsenic and lead in AOC 5. Cleanup Alternative 1—Institutional Controls would provide a lower degree of long-term effectiveness because residual concentrations of TCE, arsenic, and lead in groundwater would be left in-place until attenuated naturally. Under Cleanup Alternative 1, a long-term groundwater monitoring would be necessary to maintain effective containment.

Short-Term Risk Management

Cleanup Alternative 2—Active Cleanup presents a higher degree of short-term risk associated with exposure to TCE, arsenic, and lead in groundwater during remedial action by injecting chemical oxidants into subsurface and the removal and transport of saturated soil and fill during excavation. A lower degree of short-term risk is associated with Cleanup Alternative 1—Institutional Controls related to compliance groundwater monitoring at the Site during active operation of business at the Site.

Implementability

Implementation of Cleanup Alternative 1—Institutional Controls would not be complicated, but would include activities such as negotiating the institutional controls, establishing and recording an environmental Restrictive Covenant, and implementing long-term groundwater monitoring and well maintenance tasks. Cleanup Alternative 1 is considered to have a higher degree of implementability than Cleanup Alternative 2. Implementation of Cleanup Alternative 2—Active Cleanup involves technically complex field activities and administrative complications.

Public Concerns

Concentrations of TCE, arsenic, and lead exceeding Site cleanup levels are limited to discrete areas on the Site, which is an industrially zoned property with controlled access. There currently is no complete pathway for exposure via direct contact for the public, and implementation of construction activities would include measures to prevent public exposure to hazardous materials. Both cleanup alternatives would address potential public concerns with regard to residual levels of TCE, arsenic, and lead at the Site

(Cleanup Alternative 1—Institutional Controls) and with regard to excavation and transport of fill material to an off-Site disposal facility (Cleanup Alternative 2—Active Cleanup).

Completion within a Reasonable Time Frame

MTCA requires that cleanup levels identified for the Site are to be met at the points of compliance in the shortest reasonable time frame. Per WAC 173-340-360(4)(b), the following criteria were considered for both of the cleanup alternatives under the requirement for completion within a reasonable restoration time frame.

Potential Risk

Potential risks to human health and the environment posed by concentrations of TCE, arsenic, and lead in groundwater at the Site are considered low under current and future conditions. Cleanup standards for soil are met under current conditions at the Site.

The previous cleanup action removed a large portion of the TCE contaminant mass in groundwater. Cleanup Alternative 1—Institutional Controls would mitigate potential future Site risk by implementing administrative protective measures to reduce the potential for future direct contact with TCE, arsenic, and lead in groundwater. Removing TCE, arsenic, and lead in groundwater (Cleanup Alternative 2—Active Cleanup) would mitigate future risk to human health and the environment.

Practicality of Achieving Shorter Time Frame

The restoration time frame for Cleanup Alternative 2—Active Cleanup is long, estimated to range from approximately 6 to 13 years. Site cleanup could not be achieved in a shorter time frame. The restoration time frame for Cleanup Alternative 1—Institutional Controls relies on long-term attenuation processes and currently cannot be defined.

Current Use of the Site

The Site and most of the surrounding area are zoned for industrial land use and have a long history of commercial and industrial operations. No current plans for major changes in land use are known.

Potential Future Use of the Site

The Site and surrounding area are zoned for industrial land use. No major changes in future land use are anticipated.

Availability of Alternate Water Supplies

Potable water is supplied to the Site and surrounding area by the City of Lakewood municipal system. Use of groundwater as a potable water source is prohibited by the City of Lakewood.

Likely Effectiveness and Reliability of Institutional Controls

Institutional controls (Cleanup Alternative 1—Institutional Controls) are an effective and reliable means of preventing exposure to TCE, arsenic, and lead in groundwater at the Site. Areas of concentrations of TCE, arsenic, and lead exceeding cleanup levels in groundwater are well defined and static, and would remain until reduced by natural attenuation processes. Institutional controls will effectively mitigate exposure risks at the Site by restricting groundwater use at the Site.

Ability to Control and Monitor Contaminant Migration

Concentrations of TCE, arsenic, and lead exceeding cleanup levels in groundwater are well defined. Analytical results for groundwater samples collected from Site monitoring wells indicate that concentrations of TCE, arsenic, and lead in groundwater are static and reducing, and will not result in off-Site migration. A compliance monitoring program would be implemented to ensure that the containment by institutional controls is maintained at conditional points of compliance.

Toxicity of the Hazardous Substances

Chemical oxidation and operation of the AS/SVE remediation system would permanently eliminate the potential toxicity effects of TCE in AOC 4. Excavation and off-Site disposal of fill that likely acts as a source for concentrations of arsenic, and lead exceeding cleanup levels in groundwater in AOC 5, as proposed under Cleanup Alternative 2—Active Cleanup, would permanently eliminate the potential toxicity effects of arsenic and lead at the Site. Cleanup Alternative 1—Institutional Controls would not reduce the toxicity of TCE, arsenic, or lead, but would implement measures to protect human health and the environment by reducing the potential for completion of exposure pathways at the Site.

Potential for Contaminant Degradation Over Time

Concentrations of TCE, arsenic, and lead in groundwater at the Site are expected to diminish over time until attenuated naturally over the long term.

5.3.2.3 Cost

The estimated cost range of approximately $54,000 to $92,000 for implementing Alternative 1—Institutional Controls is substantially lower than the estimated cost range of 19 to 23.5 million dollars for Alternative 2—Active Cleanup. The cost estimate summary for each alternative is provided in Table 9.

The estimated cost for Cleanup Alternative 1—Institutional Controls includes costs for implementing institutional controls (an environmental Restrictive Covenant) and periodic compliance groundwater monitoring.

The estimated cost for Cleanup Alternative 2—Active Cleanup includes implementing modifications and long-term operation of the AS/SVE remediation system, injection of chemical oxidant(s) into the subsurface, excavation and off-Site disposal of fill material to remediate concentrations of TCE, arsenic, and lead exceeding cleanup levels, and would require substantial costs for permitting, design, construction, excavation, transport, and disposal of waste material, and groundwater monitoring. The extremely high cost for Cleanup Alternative 2 coupled with potential technical difficulties of implementing various cleanup technologies indicate that Cleanup Alternative 2 is not practicable.

5.3.3 Disproportionate Cost Analysis

The purpose of the DCA is to facilitate selection of the cleanup alternative that provides the highest degree of permanence to the maximum extent practicable. The following cleanup alternatives were considered for the DCA:

- Cleanup Alternative 1—Institutional Controls; and
- Cleanup Alternative 2—Active Cleanup.

The DCA for the Site was conducted according to the methodology provided by Ecology (2009a) and per WAC 173-340-360(3)(e). The cleanup alternative evaluation presented in Table 10 is provided in a format suggested by Ecology (2009a). Table 10 presents a quantitative assessment of the MTCA criteria for permanence to the maximum extent practicable (WAC 173-340-360[3][f]). A numeric score ranging from 0 to 10 was assigned for each of the criteria based on best professional judgment. The higher the score, the more favorable the evaluation criterion is under MTCA. The criteria scores were weighted according to Ecology (2009a) suggestions and as indicated in Table 10.

A MTCA Composite Benefit Score was calculated for each alternative by summing the mathematical product of the criterion score times the weighting factor, which provided the quantitative measure of environmental benefit that would be realized with implementation of a cleanup alternative. For example, if the weighting factors for the six criteria are Protectiveness at 30 percent, Permanence at 20 percent, Long-Term Effectiveness at 20 percent, Short-Term Effectiveness at 10 percent, Implementability at 10 percent, and Public Concerns at 10 percent, with scores for each of these criteria of 7.5, 7, 6, 3, 7, and 6, respectively, the MTCA Composite Benefit Score is calculated as: (7.5)*(0.3) + (7)*(0.2) + (6)*(0.2) + (3)*(0.1) + (7)*(0.1) + (6)*(0.1) = 6.45. A score of 6.45 represents moderate environmental benefit on a scale of 0 to 10, with 10 having the highest environmental benefit.

Table 10 summarizes the basis for the scoring and the estimated costs for the two cleanup alternatives. Chart 3 graphically presents the results of the DCA. The red bars on Chart 2 present the calculated environmental benefit offered by each cleanup alternative as measured by the MTCA Composite Benefit Score using the left vertical axis of the graph. The blue bars reflect the estimated cost for each alternative using the right vertical axis of the graph. The incremental benefit of implementing Cleanup Alternative 2—Active Cleanup over Cleanup

Alternative 1—Institutional Controls per the discussion in Section 5.3, Cleanup Alternatives Evaluation, can be ascertained relative to incremental costs.

Increasing environmental benefits over those provided by Cleanup Alternative 1 by a 0.8 MTCA Composite Benefit Score (i.e., raising the MTCA Composite Benefit Score from 6.2 for Cleanup Alternative 1 to 6.8 for Cleanup Alternative 2, an approximately 10 percent increase) would cost from approximately $92,000 (high range of cost for Cleanup Alternative 1) to $23.5 million, about 260 times the estimated cost for implementing Cleanup Alternative 1. The incremental environmental benefit that would be realized by implementing Cleanup Alternative 2 would be incommensurate with the incremental cost and that Cleanup Alternative 2—Active Cleanup is impracticable relative to Cleanup Alternative 1—Institutional Controls.

5.4 RECOMMENDED CLEANUP ALTERNATIVE

Based on the results of the FFS and DCA, Cleanup Alternative 1—Institutional Controls is the recommended cleanup alternative for residual contamination at the Site to achieve an NFA determination under the VCP. Cleanup Alternative 1 provides a high degree of environmental benefit and is the most cost-effective of the two permanent technically feasible cleanup alternatives and meets the MTCA requirements for selection of a cleanup action (WAC 173-340-360). Protection of human health and the environment will be provided by implementation of institutional controls that include a restriction of groundwater use in AOC 4 and AOC 5. Institutional controls do not disrupt active business operations occurring at the Site. The estimated cost for implementing this alternative ranges from approximately $54,000 to $92,000.

As documented in Section 5.3, Cleanup Alternatives Evaluation and Disproportionate Cost Analysis, Cleanup Alternative 1—Institutional Controls provides a high degree of environmental benefit at relatively low cost and is the more practicable of the two technically feasible cleanup alternatives evaluated. Cleanup Alternative 1 satisfies the MTCA threshold requirements for a cleanup action, is permanent to the maximum extent practicable, and minimizes risk from residual concentrations of TCE, arsenic, and lead in groundwater.

Cleanup Alternative 1 meets the requirements set forth in WAC 173-340-370–Expectations for Cleanup Action Alternatives. Cleanup Alternative 1 relies on long-term management and control of residual contamination. Although Cleanup Alternative 1 will not achieve the cleanup standards at the standard points of compliance in AOC 4 or AOC 5 until residual concentrations of TCE, arsenic, and lead in groundwater attenuate to less than cleanup levels, cleanup standards will be met at the conditional points of compliance for groundwater, and Institutional Controls will be protective of direct contact exposure to contaminants in groundwater.

Institutional controls will restrict groundwater from being used for potable water at AOC 4 and AOC 5 by recording an Environmental Covenant on the property deed. A draft Environmental Covenant is included for Ecology review in Appendix G. The two areas of the Site where groundwater usage would be restricted and the conditional points of compliance are shown on Figure 11. Cleanup Alternative 1 assumes long-term groundwater monitoring at the conditional point of compliance monitoring wells to ensure compliance with the provisions of the Environmental Covenant, and at other monitoring wells to monitor progress of the natural attenuation of contaminants.

5.5 MONITORING PLAN FOR SELECTED CLEANUP ALTERNATIVE

Monitoring of the conditional points of compliance selected in Section 4.5.2, Points of Compliance, and additional monitoring wells selected to monitor natural attenuation would occur every 18 months until the concentrations of TCE, arsenic, and lead attenuate to less than cleanup levels (Figure 8). The 18-month monitoring frequency is selected to account for seasonal variations in groundwater levels at the Site and will include collection of groundwater samples from monitoring wells during late summers and late winters. The following conditional point of compliance monitoring wells and parameters will be monitored:

- Monitoring well MW-3 for TCE by EPA Method 8260c to monitor groundwater down-gradient of the area with residual concentrations of TCE in the shallow water-bearing zone in AOC 4;
- Monitoring wells MW-9, MW-12B, and MW-32 for dissolved arsenic and lead by EPA Method 200.8 to monitor groundwater down- and up-gradient of the area with residual concentrations of arsenic and lead in the shallow water-bearing zone in AOC 5; and
- Monitoring wells MW-9B and MW-12B for TCE to monitor groundwater down-gradient of the area with residual concentrations of TCE in the deep water-bearing zone in AOC 4.

Four monitoring wells within the contaminant plumes in groundwater will be monitored for natural attenuation, including:

- Remediation well SVE-12 for TCE to monitor natural attenuation of TCE in the shallow water-bearing zone groundwater in AOC 4;
- Monitoring well MW-20 for TCE to monitor natural attenuation of TCE in the deep water-bearing zone in AOC 4; and
- Monitoring wells MW-12 and MW-31 for total and dissolved arsenic and lead to monitor natural attenuation of arsenic and lead in shallow water-bearing zone in AOC 5.

The first of four groundwater monitoring and sampling events will occur in the third quarter of 2015. The second groundwater monitoring and sampling event will occur in the first quarter of 2017. The third groundwater monitoring and sampling event will occur in the third quarter of 2018. The fourth groundwater monitoring and sampling event will occur in the first quarter of 2020. A groundwater monitoring report will be prepared and provided to Ecology after 5 years of groundwater monitoring and sampling had been completed. The groundwater monitoring frequency will be reevaluated after the initial 5 years of monitoring and will be discussed with Ecology.

6.0 SUMMARY

Cleanup of DRO and ORO in soil and/or groundwater in AOC 1, AOC 2, and AOC 3 has been completed. Confirmation groundwater monitoring in AOC 1 and AOC 3 has been completed in accordance with the agreement with Ecology from the meeting on February 16, 2011. DRO and ORO have not been detected at concentrations at or exceeding laboratory reporting limits during the quarterly groundwater events requested by Ecology, and confirm that the cleanup is complete and no additional cleanup action or groundwater monitoring is necessary for AOC 1, AOC 2, or AOC 3.

Concentrations of TCE in shallow and deep water-bearing zone groundwater have been reduced by the operation of the AS/SVE remediation system in AOC 4. A trend analysis shows that the rate of decrease in concentrations of TCE in groundwater has slowed significantly. Farallon expects that the rate of reduction of TCE concentrations in groundwater will decrease further, exhibiting asymptotic behavior as TCE concentrations approach the low cleanup level for TCE in groundwater. Concentration trend analysis indicates that concentrations of TCE are unlikely to decrease to below the MTCA Method A cleanup level within a reasonable time frame.

Groundwater sampling conducted at the Site prior to the onset of active cleanup demonstrated that concentrations of TCE were reduced over time by natural processes such as degradation, advection, sorption, volatilization, dilution, and dispersion. Farallon expects that natural attenuation of TCE will continue in shallow and deep water-bearing zone groundwater following shutdown of the AS/SVE remediation system, and that TCE concentrations in groundwater eventually will reach the MTCA Method A cleanup level. The continued operation of the AS/SVE system is not practicable to meet the MTCA cleanup level for TCE in a reasonable time frame, and the cost is disproportionate to the benefit for protection of human health and the environment.

The results of a subsurface investigation conducted in AOC 5 show that the extent of arsenic and lead in shallow water-bearing zone groundwater has been delineated. Trend analysis for dissolved arsenic and lead concentrations in groundwater, which are representative of groundwater conditions at the Site, suggests that concentrations have been decreasing and MTCA Method A cleanup levels eventually will be reached.

The MTCA Method A groundwater cleanup levels for TCE, arsenic, and lead are based on protection of human health and the environment for use of groundwater as a potable water source. Groundwater at the Site is not now nor can it be used as a potable water source due to restrictions imposed by the City of Lakewood. There is no exposure pathway for direct human contact with shallow and deep water-bearing zone groundwater. Therefore, protection of human health and the environmental can be met by implementing an Environmental Covenant as an institutional control that limits the use and exposure pathways to shallow and deep water-bearing zone groundwater.

Based on the results of the FFS and DCA, Cleanup Alternative 1—Institutional Controls is the recommended cleanup alternative for the Site to meet the requirements for a conditional NFA determination from Ecology under the VCP. Cleanup Alternative 1—Institutional Controls provides a high degree of environmental benefit and is the most cost-effective of the two technically feasible cleanup alternatives evaluated. Cleanup Alternative 1—Institutional Controls satisfies the requirements of MTCA and significantly reduces risk from residual Site contamination to the maximum extent practicable by restricting potential exposure to TCE, arsenic, and lead at concentrations exceeding cleanup levels in groundwater at the Site.

Farallon recommends that operation of the AS/SVE system be discontinued and that an Environmental Covenant be placed on the property as an institutional control for TCE in groundwater at AOC 4, and for arsenic and lead in groundwater in AOC 5 to prevent the use of groundwater as a potable water source. The Environmental Covenant would be attached to the property deed; the area to which the Environmental Covenant would apply is limited in extent to the areas defined on Figure 11.

A draft Environmental Covenant is included in Appendix G. Use of an institutional control would adequately protect human health and the environment to meet the requirements of MTCA and would not restrict the future use of the Site, with the exception of the use of groundwater as a potable water source.

Compliance groundwater monitoring at the Site would include a long-term monitoring at five conditional point of compliance monitoring wells sampled every 18 months for the first 5 years following receipt of the conditional NFA determination for the Site. The frequency for compliance groundwater monitoring will be reevaluated after 5 years. Compliance groundwater monitoring will continue until concentrations of TCE, arsenic, and lead in four monitoring wells located within the contaminant plumes in shallow and deep water-bearing zones have attenuated to less than MTCA Method A cleanup levels.

Site redevelopment and reclamation will include placing up to 30 feet of clean fill in the area where the conditional points of compliance for groundwater are currently located. It is not practicable to place and compact fill around existing monitoring wells; therefore, if the filling will occur in the area of the current conditional points of compliance for groundwater, Ecology will be contacted to discuss and provide concurrence for the placement of alternative conditional points of compliance, if necessary.

7.0 BIBLIOGRAPHY

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8.0 LIMITATIONS

The conclusions and recommendations contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location and are subject to the following inherent limitations:

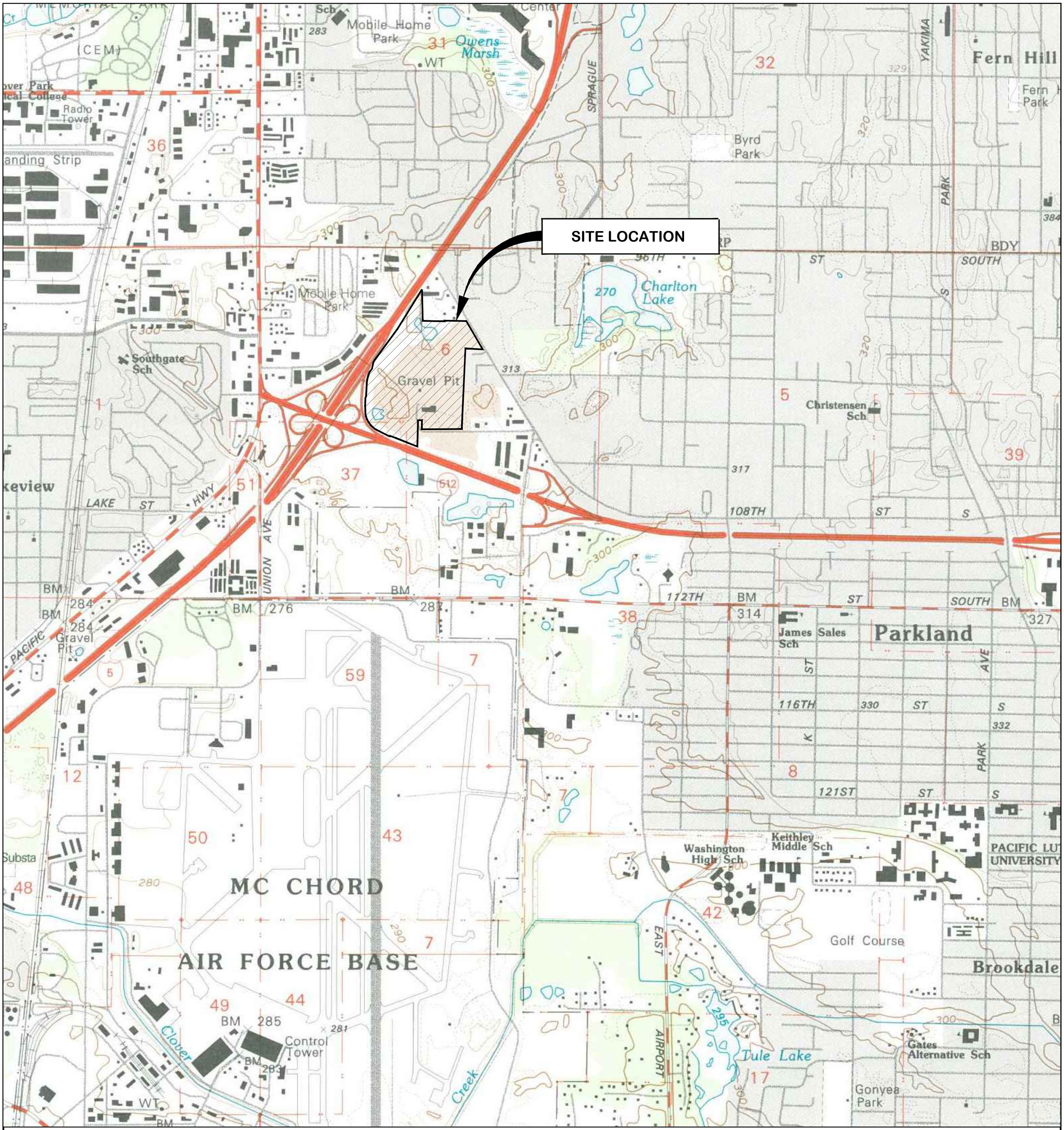
- **Accuracy of Information.** Certain information used by Farallon in this report/assessment has been obtained, reviewed, and evaluated from various sources believed to be reliable. Although Farallon's conclusions, opinions, and recommendations are based in part on such information, Farallon's services did not include verification of its accuracy or authenticity. Should such information prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.

- **Limitations**. Because Site conditions beyond Farallon's control could change at any time after the completion of this report/assessment, Farallon's observations, findings, and opinions can be considered valid only as of the date of the report hereof. This report/assessment is prepared in accordance with the client contract and currently accepted industry standards, and no other warranties, representations, or certifications are made. Unless stated otherwise herein, this report is intended for and restricted to the sole use of Woodworth Capital, Inc. and its agents. Any use, interpretation, or reliance upon this report by anyone other than Woodworth Capital, Inc and its authorized agents is at the sole risk of that party, and Farallon shall have no liability for such unauthorized use, interpretation, or reliance.

FIGURES

FOCUSED FEASIBILITY STUDY/
DISPROPORTIONATE COST ANALYSIS REPORT
Lakeview Facility
2800 104th Street Court South
Lakewood, Washington

Farallon PN: 188-002



REFERENCE: 7.5 MINUTE USGS QUADRANGLE TACOMA SOUTH, WASHINGTON. DATED 1991

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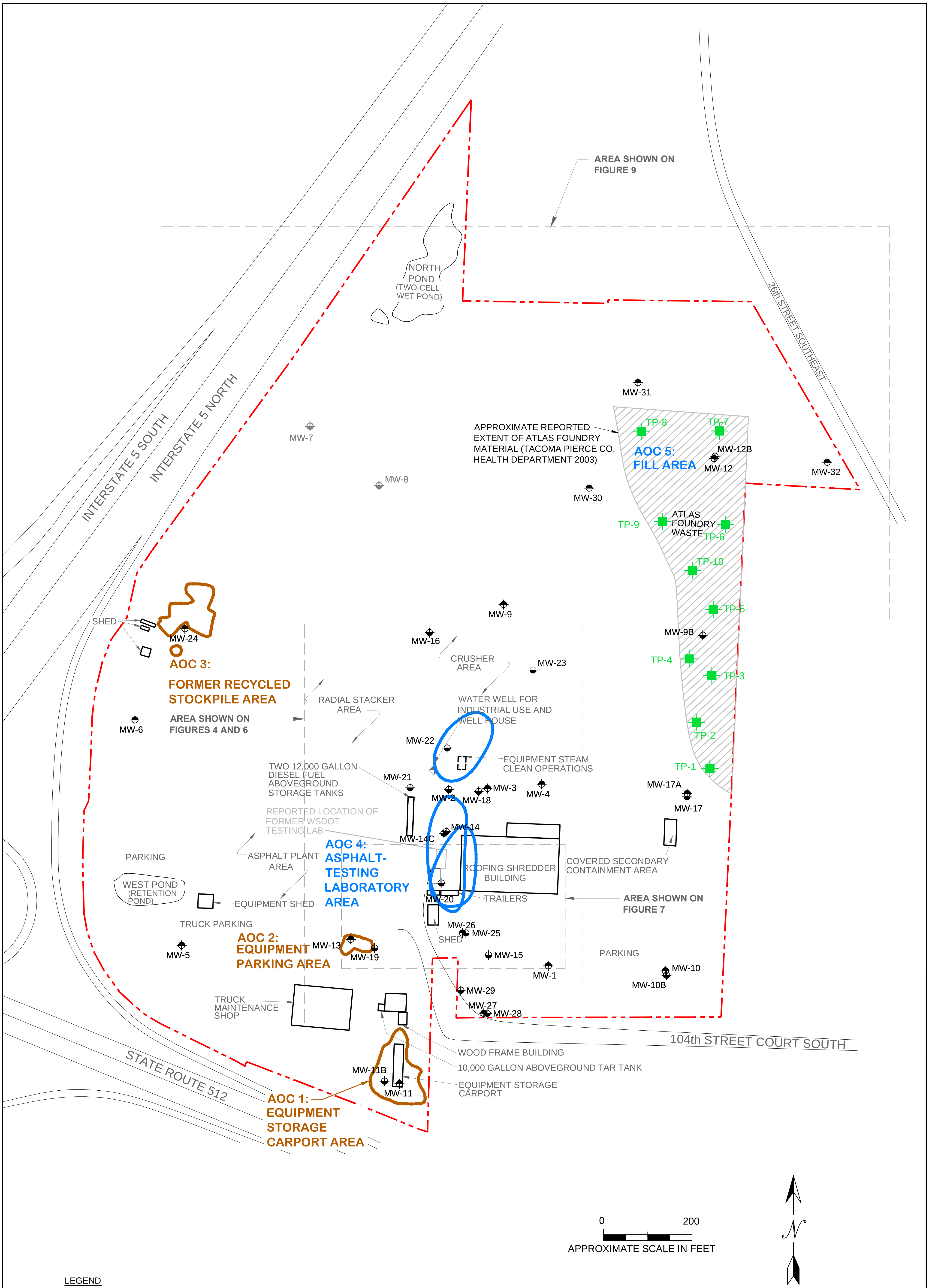
FIGURE 1

SITE VICINITY MAP
LAKEVIEW FACILITY
2800 104th STREET COURT SOUTH
LAKEWOOD, WASHINGTON

FARALLON PN: 188-002

Drawn By: DEW | Checked By: BJ | Date: 3/27/2015 | Disk Reference: 188002b



LEGEND

🟥	PROPERTY BOUNDARY
🟧	APPROXIMATE AREA OF COMPLETED SOIL CLEANUP ACTION
🟦	APPROXIMATE AREA OF GROUNDWATER CLEANUP ACTION
MW-11 ◆	MONITORING WELL SCREENED IN SHALLOW WATER-BEARING ZONE
MW-15 ◆	MONITORING WELL SCREENED IN DEEP WATER-BEARING ZONE
MW-8 ◆	DECOMMISSIONED MONITORING WELL
🟩	TEST PIT
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

NOTE:

1. AIR SPARGE AND SOIL VAPOR EXTRACTION WELLS BORING B2 THROUGH B7, AND B9 NOT SHOWN ON THIS FIGURE.
2. ALL LOCATIONS OF SITE FEATURES ARE APPROXIMATE.

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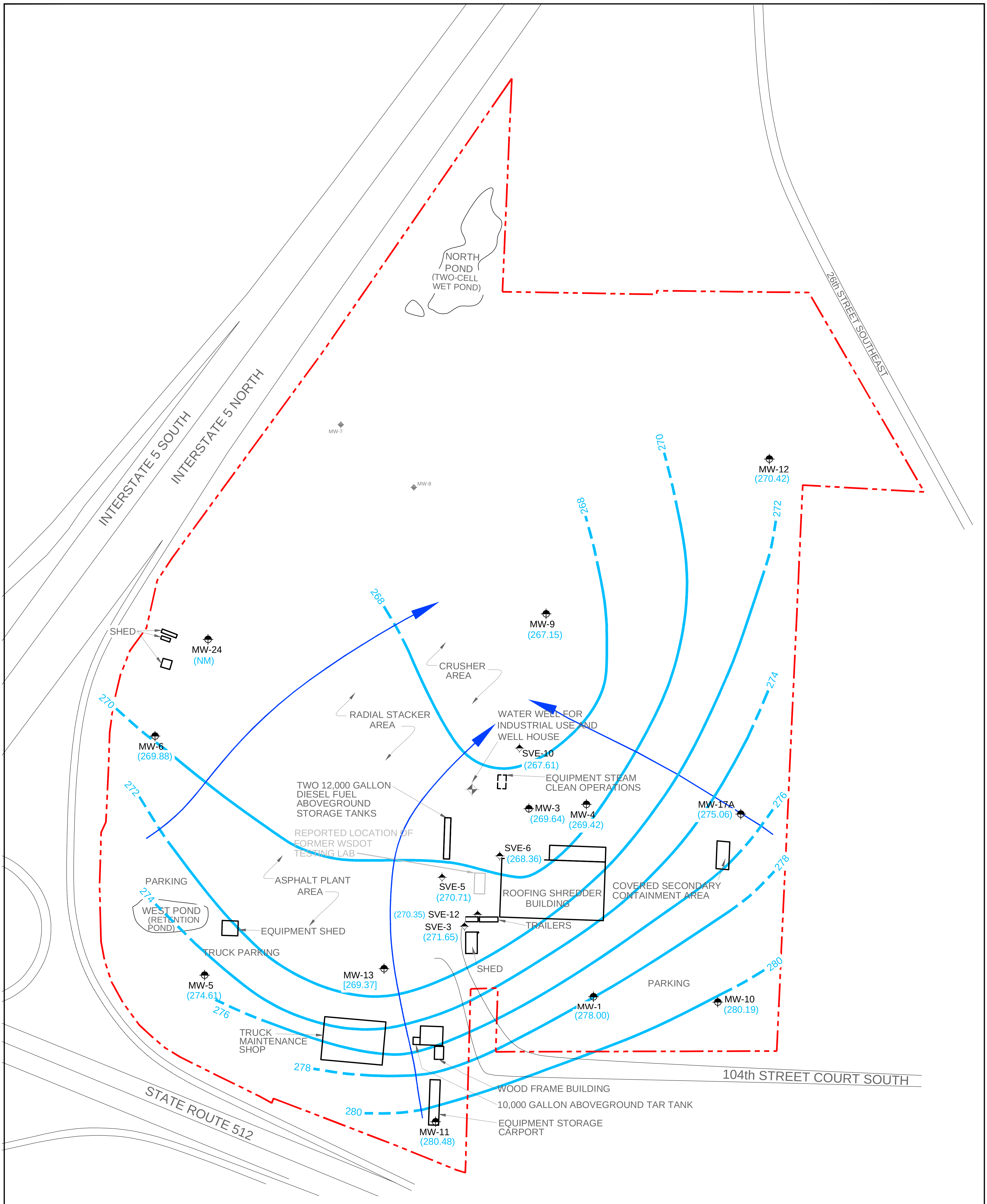
FIGURE 2

SITE PLAN
LAKEVIEW FACILITY
2800 104th STREET COURT SOUTH
LAKEWOOD, WASHINGTON

FARALLON PN: 188-002

Drawn By: DEW Checked By: BJ Date: 3/31/2015 Disk Reference: 188002b



LEGEND

PROPERTY BOUNDARY

MW-6 ⌖ MONITORING WELL SCREENED IN SHALLOW WATER-BEARING ZONE

✦ EXTRACTION WELL

(269.88) GROUNDWATER ELEVATION AT WELL SCREENED IN SHALLOW WATER-BEARING ZONE (APRIL 2010)

[269.37] GROUNDWATER ELEVATION NOT USED IN CONTOURING

(NM) NOT MEASURED

270 GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

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ALL LOCATIONS OF SITE FEATURES ARE APPROXIMATE.

0 200
APPROXIMATE SCALE IN FEET

N

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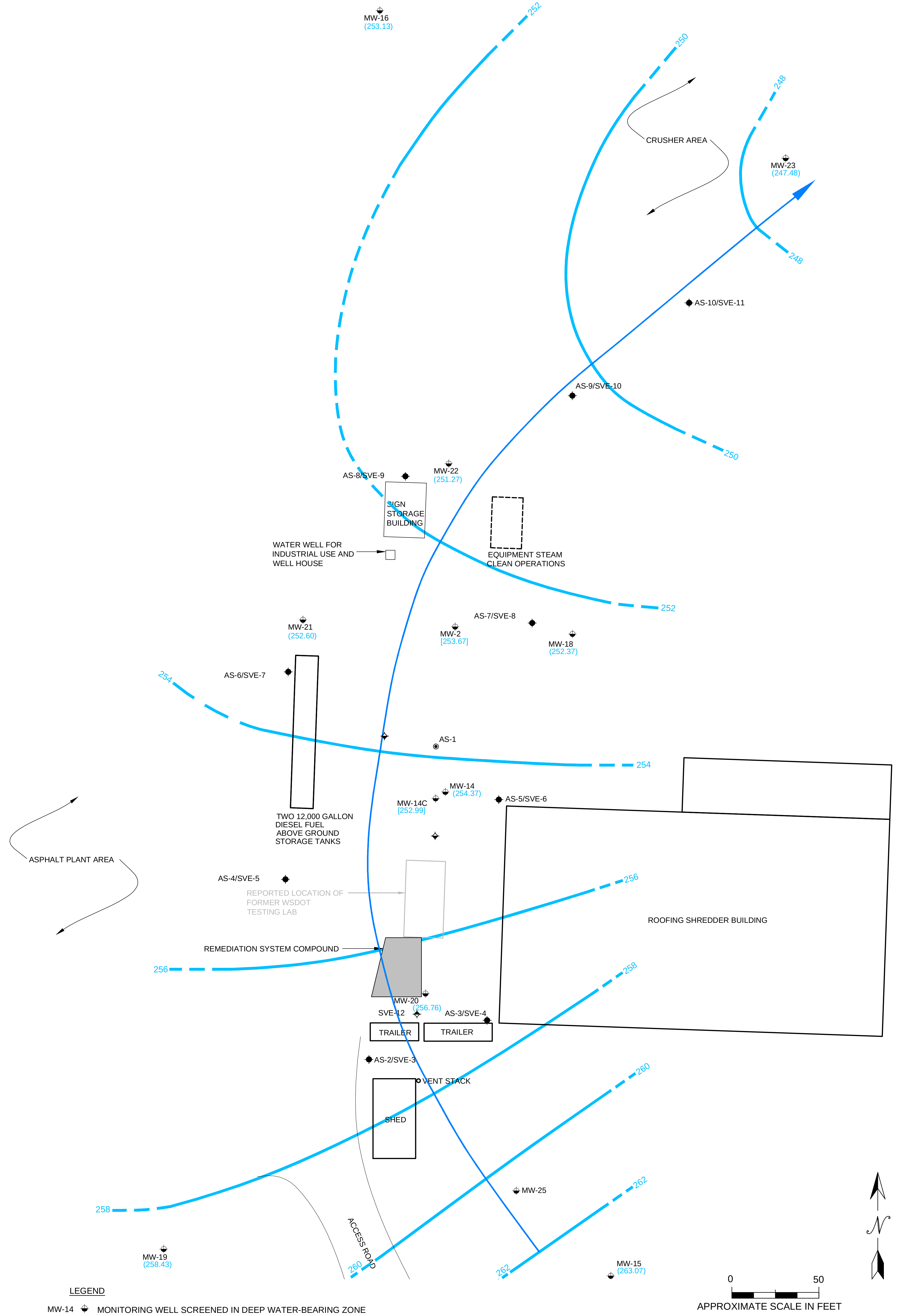
FIGURE 3

GROUNDWATER ELEVATION CONTOURS FOR
SHALLOW WATER-BEARING ZONE
(APRIL 2010)
LAKEVIEW FACILITY
2800 104th ST CT S, LAKEWOOD, WA
FARALLON PN: 188-002

Drawn By: DEW Checked By: BJ Date: 3/31/2015 Disk Reference: 188002b



LEGEND

MW-14 ⊕ MONITORING WELL SCREENED IN DEEP WATER-BEARING ZONE
SVE-1 ✦ SOIL VAPOR EXTRACTION WELL
AS-1 ◉ AIR SPARGE WELL
AS/SVE ● AIR SPARGE AND SOIL VAPOR EXTRACTION WELL PAIR
(254.37) GROUNDWATER ELEVATION AT WELL SCREENED NEAR THE MIDDLE OF THE DEEP WATER-BEARING ZONE (APRIL 2010)
[252.99] GROUNDWATER ELEVATION NOT USED IN CONTOURING
250 – – — GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED
← APPROXIMATE DIRECTION OF GROUNDWATER FLOW
WSDOT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

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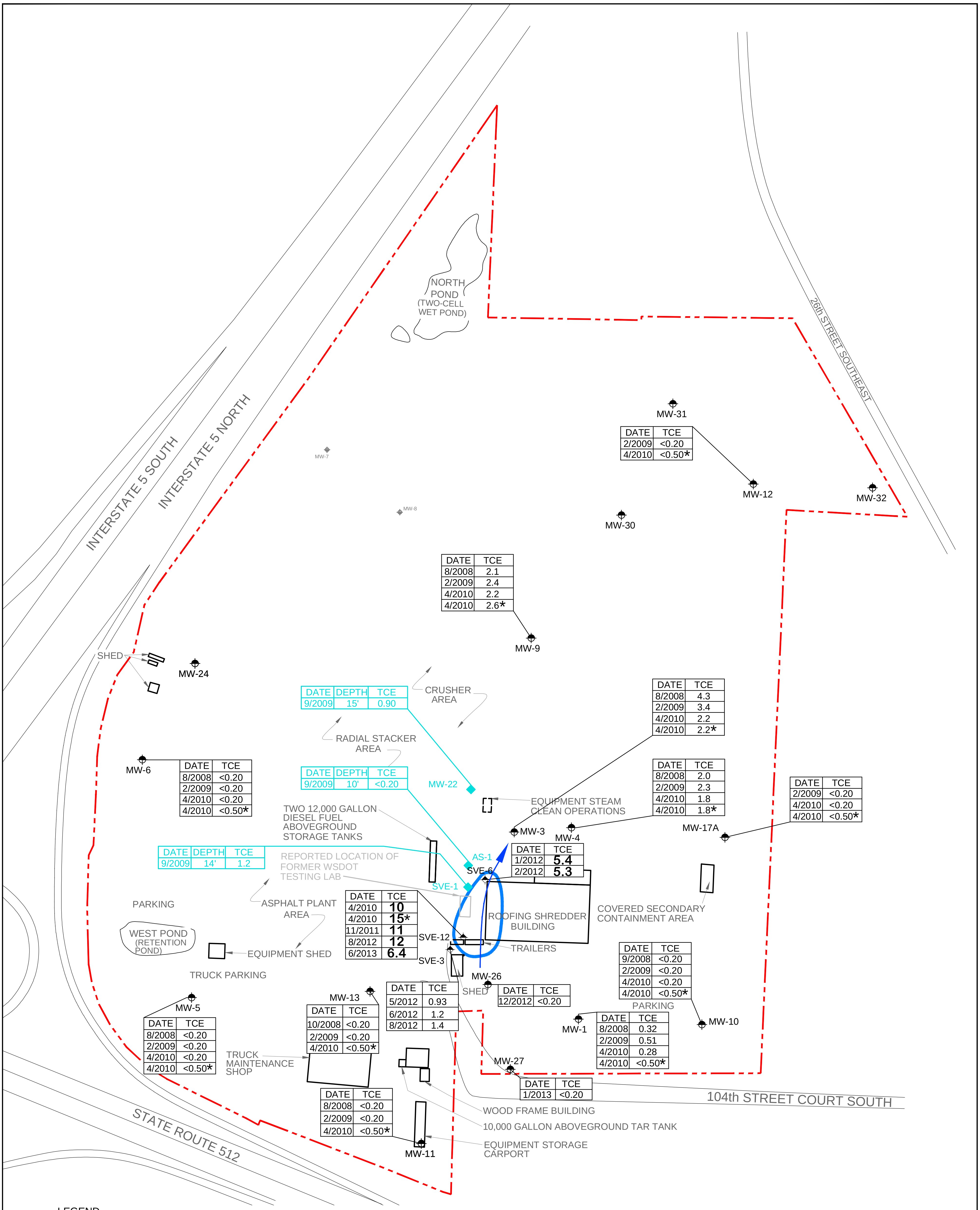
FIGURE 4

GROUNDWATER ELEVATION CONTOURS FOR
DEEP WATER-BEARING ZONE
(APRIL 2010)
LAKEVIEW FACILITY
2800 104th ST CT S, LAKEWOOD, WA
FARALLON PN: 188-002

Drawn By: DEW Checked By: BJ Date: 3/31/2015 Disk Reference: 188002b



LEGEND

PROPERTY BOUNDARY

APPROXIMATE EXTENT OF TRICHLOROETHENE (TCE) CONCENTRATION IN GROUNDWATER EXCEEDING THE WASHINGTON STATE MODEL TOXIC CONTROL ACT METHOD A CLEANUP LEVEL OF 5 MICROGRAMS PER LITER

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

MW-11 MONITORING WELL SCREENED IN SHALLOW WATER-BEARING ZONE

SVE-12 SOIL VAPOR EXTRACTION WELL SCREENED IN SHALLOW WATER-BEARING ZONE

◆ RECONNAISSANCE GROUNDWATER SAMPLE COLLECTED IN SHALLOW WATER-BEARING ZONE

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NOTES:
1. < DENOTES ANALYTE NOT DETECTED AT OR ABOVE THE REPORTING LIMIT LISTED.
2. RESULTS IN **BOLD** DENOTE CONCENTRATIONS ABOVE APPLICABLE CLEANUP LEVEL.
3. TCE CONCENTRATIONS FOLLOWED BY " * " ARE THE RESULTS PROVIDED BY GEOENGINEERS, INC. FOR THE APRIL 2010 GROUNDWATER SAMPLING EVENT.
4. ALL RESULTS IN MICROGRAMS PER LITER.
5. DEPTHS ARE INDICATED ARE IN FEET BELOW GROUND SURFACE.
6. RESULTS IN BLUE DENOTE RECONNAISSANCE GROUNDWATER SAMPLES

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FIGURE 5

TCE DISTRIBUTION IN
SHALLOW WATER-BEARING ZONE
LAKEVIEW FACILITY
2800 104th ST CT S, LAKEWOOD, WA

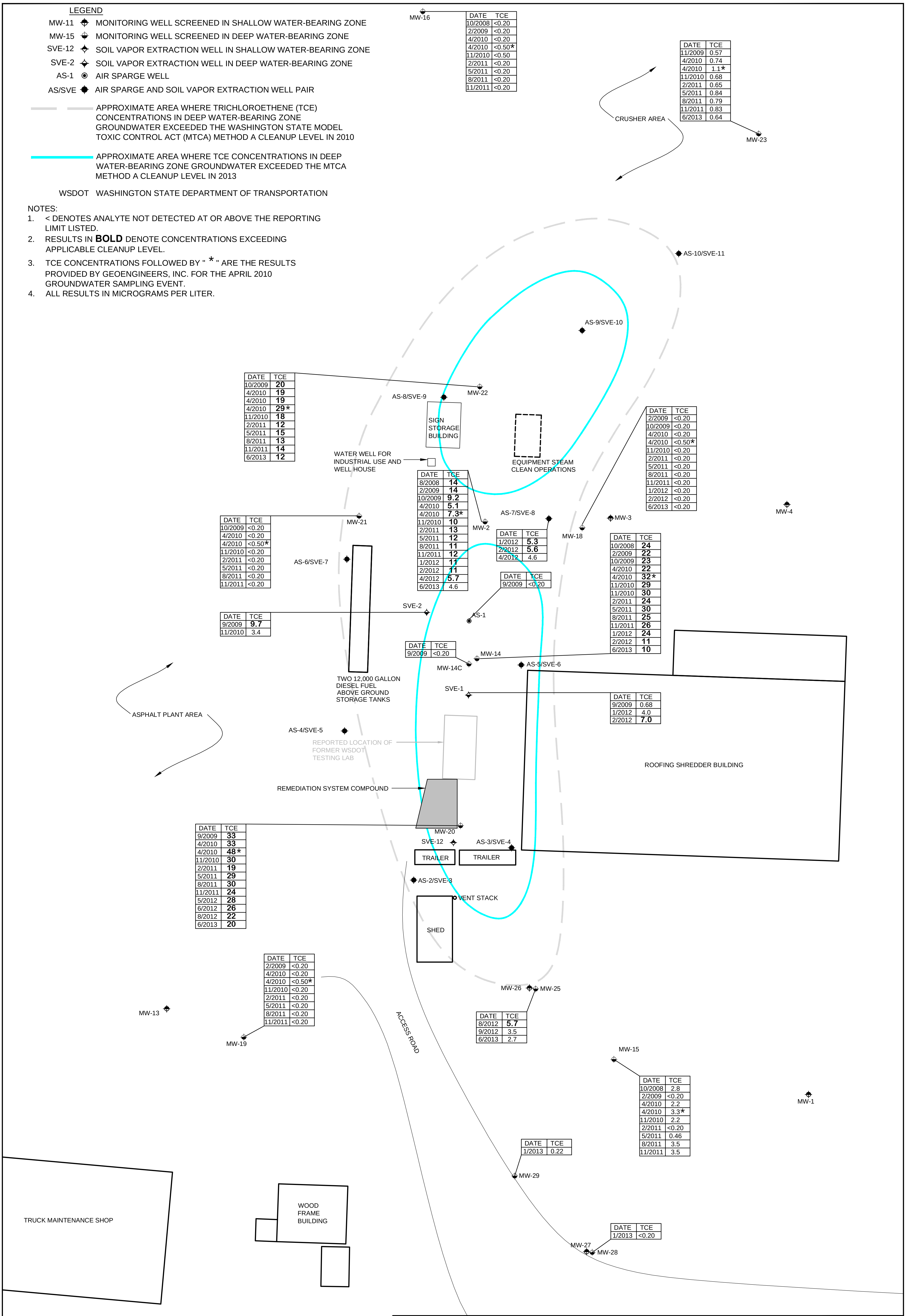
FARALLON PN: 188-002

Drawn By: DEW Checked By: BJ Date: 3/31/2015 Disk Reference: 188002b

LEGEND

- MW-11 ⊕ MONITORING WELL SCREENED IN SHALLOW WATER-BEARING ZONE
- MW-15 ⊖ MONITORING WELL SCREENED IN DEEP WATER-BEARING ZONE
- SVE-12 ✦ SOIL VAPOR EXTRACTION WELL IN SHALLOW WATER-BEARING ZONE
- SVE-2 ✧ SOIL VAPOR EXTRACTION WELL IN DEEP WATER-BEARING ZONE
- AS-1 ◉ AIR SPARGE WELL
- AS/SVE ◆ AIR SPARGE AND SOIL VAPOR EXTRACTION WELL PAIR
- ▭ ▭ APPROXIMATE AREA WHERE TRICHLOROETHENE (TCE) CONCENTRATIONS IN DEEP WATER-BEARING ZONE GROUNDWATER EXCEEDED THE WASHINGTON STATE MODEL TOXIC CONTROL ACT (MTCA) METHOD A CLEANUP LEVEL IN 2010
- ━ APPROXIMATE AREA WHERE TCE CONCENTRATIONS IN DEEP WATER-BEARING ZONE GROUNDWATER EXCEEDED THE MTCA METHOD A CLEANUP LEVEL IN 2013
- WSDOT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

NOTES:
1. < DENOTES ANALYTE NOT DETECTED AT OR ABOVE THE REPORTING LIMIT LISTED.
2. RESULTS IN **BOLD** DENOTE CONCENTRATIONS EXCEEDING APPLICABLE CLEANUP LEVEL.
3. TCE CONCENTRATIONS FOLLOWED BY " * " ARE THE RESULTS PROVIDED BY GEOENGINEERS, INC. FOR THE APRIL 2010 GROUNDWATER SAMPLING EVENT.
4. ALL RESULTS IN MICROGRAMS PER LITER.



DATE	TCE
10/2008	<0.20
2/2009	<0.20
4/2010	<0.20
4/2010	<0.50*
11/2010	<0.50
2/2011	<0.20
5/2011	<0.20
8/2011	<0.20
11/2011	<0.20

DATE	TCE
11/2009	0.57
4/2010	0.74
4/2010	1.1*
11/2010	0.68
2/2011	0.65
5/2011	0.84
8/2011	0.79
11/2011	0.83
6/2013	0.64

DATE	TCE
10/2009	**20**
4/2010	**19**
4/2010	**19**
4/2010	**29***
11/2010	**18**
2/2011	**12**
5/2011	**15**
8/2011	**13**
11/2011	**14**
6/2013	**12**

DATE	TCE
2/2009	<0.20
10/2009	<0.20
4/2010	<0.20
4/2010	<0.50*
11/2010	<0.20
2/2011	<0.20
5/2011	<0.20
8/2011	<0.20
11/2011	<0.20
1/2012	<0.20
2/2012	<0.20
6/2013	<0.20

DATE	TCE
8/2008	**14**
2/2009	**14**
10/2009	**9.2**
4/2010	**5.1**
4/2010	**7.3***
11/2010	**10**
2/2011	**13**
5/2011	**12**
8/2011	**11**
11/2011	**12**
1/2012	**11**
2/2012	**11**
4/2012	**5.7**
6/2013	4.6

DATE	TCE
10/2009	<0.20
4/2010	<0.20
4/2010	<0.50*
11/2010	<0.20
2/2011	<0.20
5/2011	<0.20
8/2011	<0.20
11/2011	<0.20

DATE	TCE
1/2012	**5.3**
2/2012	**5.6**
4/2012	4.6

DATE	TCE
9/2009	<0.20

DATE	TCE
10/2008	**24**
2/2009	**22**
10/2009	**23**
4/2010	**22**
4/2010	**32***
11/2010	**29**
11/2010	**30**
2/2011	**24**
5/2011	**30**
8/2011	**25**
11/2011	**26**
1/2012	**24**
2/2012	**11**
6/2013	**10**

DATE	TCE
9/2009	**9.7**
11/2010	3.4

DATE	TCE
9/2009	<0.20

DATE	TCE
9/2009	0.68
1/2012	4.0
2/2012	**7.0**

DATE	TCE
9/2009	**33**
4/2010	**33**
4/2010	**48***
11/2010	**30**
2/2011	**19**
5/2011	**29**
8/2011	**30**
11/2011	**24**
5/2012	**28**
6/2012	**26**
8/2012	**22**
6/2013	**20**

DATE	TCE
2/2009	<0.20
4/2010	<0.20
4/2010	<0.50*
11/2010	<0.20
2/2011	<0.20
5/2011	<0.20
8/2011	<0.20
11/2011	<0.20

DATE	TCE
8/2012	**5.7**
9/2012	3.5
6/2013	2.7

DATE	TCE
10/2008	2.8
2/2009	<0.20
4/2010	2.2
4/2010	3.3*
11/2010	2.2
2/2011	<0.20
5/2011	0.46
8/2011	3.5
11/2011	3.5

DATE	TCE
1/2013	0.22

DATE	TCE
1/2013	<0.20

N

0 60
APPROXIMATE SCALE IN FEET

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FIGURE 6

TCE DISTRIBUTION IN
DEEP WATER-BEARING ZONE
LAKEVIEW FACILITY
2800 104th STREET COURT SOUTH
LAKEWOOD, WASHINGTON

FARALLON PN: 188-002

Drawn By: DEW Checked By: BJ Date: 3/31/2015 Disk Reference: 188002b

LEGEND

◆ BORING LOCATIONS

MW−11 ⊕ MONITORING WELL SCREENED IN SHALLOW WATER-BEARING ZONE

MW−15 ⊖ MONITORING WELL SCREENED IN DEEP WATER-BEARING ZONE

SVE−12 ✦ SOIL VAPOR EXTRACTION WELL IN SHALLOW WATER-BEARING ZONE

SVE−2 ✦ SOIL VAPOR EXTRACTION WELL IN DEEP WATER-BEARING ZONE

AS/SVE ● AIR SPARGE AND SOIL VAPOR EXTRACTION WELL PAIR

0 30
Scale in feet

N

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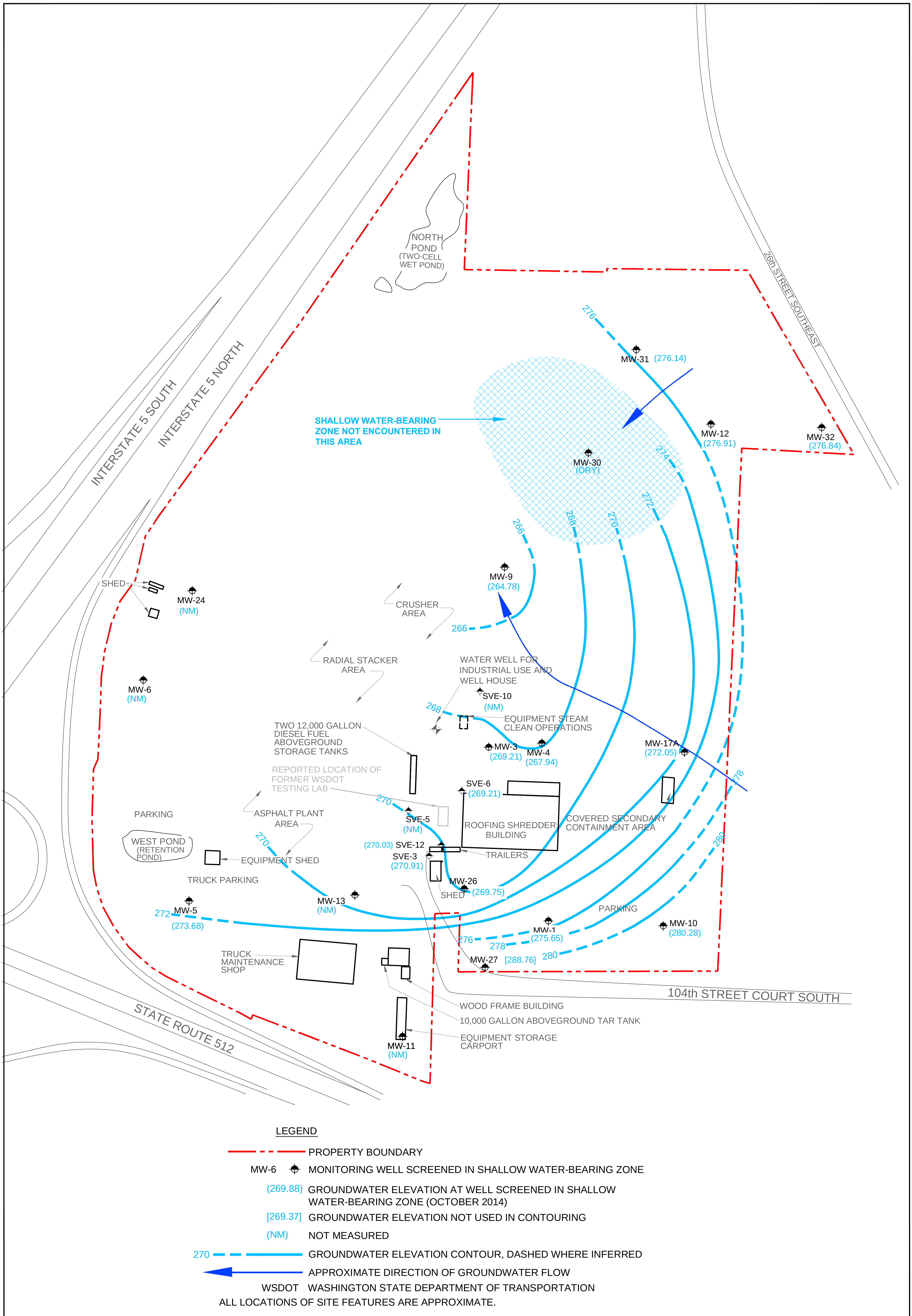
FIGURE 7

BORING LOCAITONS
LAKEVIEW FACILITY
2800 104th STREET COURT SOUTH
LAKEWOOD, WASHINGTON

FARALLON PN: 188-002

Drawn By: DEW Checked By: BJ Date: 3/27/2015 Disk Reference: 188002b



N

0 200
APPROXIMATE SCALE IN FEET

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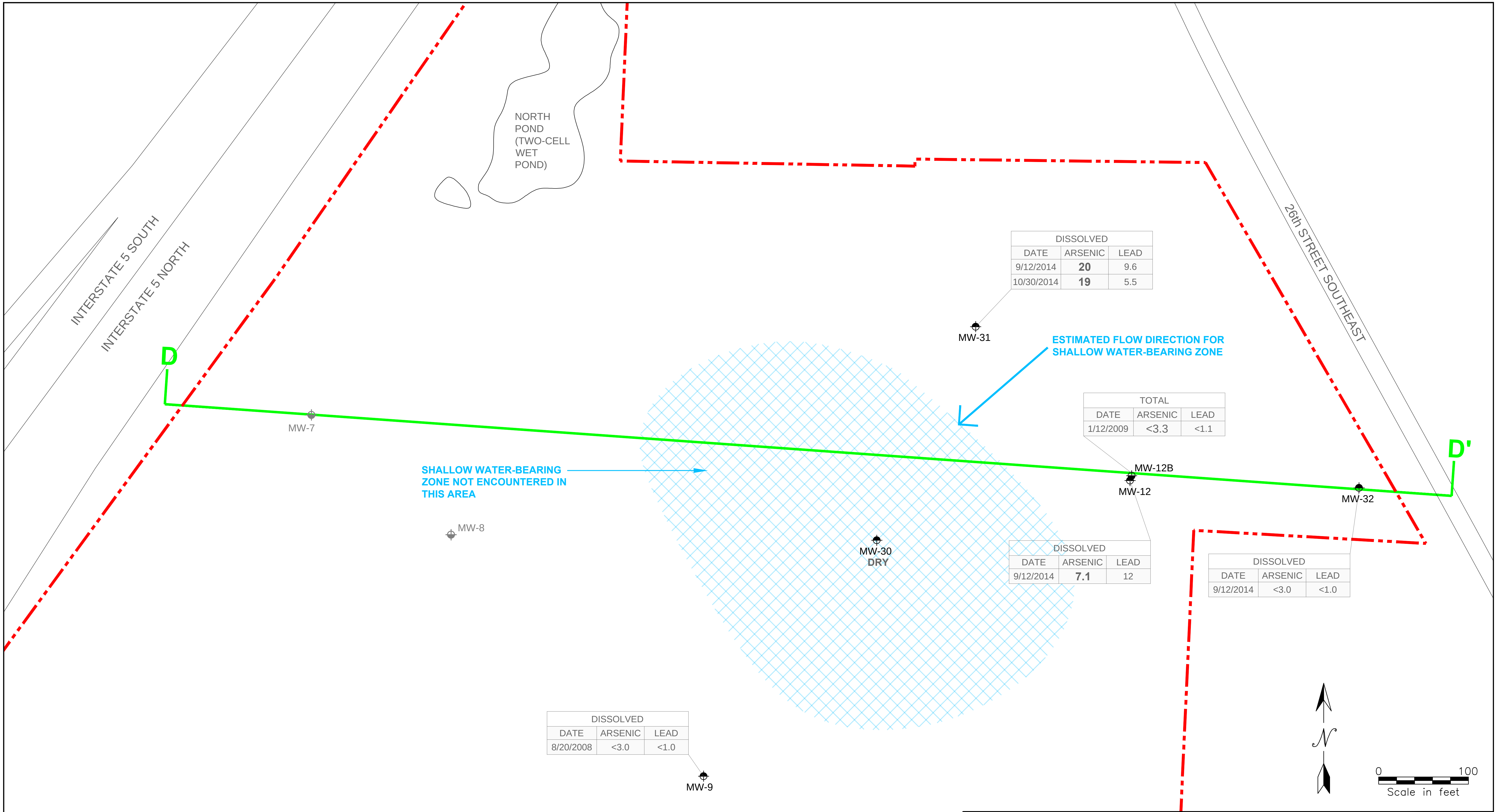
FIGURE 8

GROUNDWATER ELEVATION CONTOURS FOR
SHALLOW WATER-BEARING ZONE
(OCTOBER 2014)
LAKEVIEW FACILITY
2800 104th ST CT S, LAKEWOOD, WA
FARALLON PN: 188-002

Drawn By: DEW	Checked By: BJ	Date: 3/31/2015	Disk Reference: 188002b



MW-31

DISSOLVED		
DATE	ARSENIC	LEAD
9/12/2014	**20**	9.6
10/30/2014	**19**	5.5

MW-12B

TOTAL		
DATE	ARSENIC	LEAD
1/12/2009	<3.3	<1.1

MW-12

DISSOLVED		
DATE	ARSENIC	LEAD
9/12/2014	**7.1**	12

MW-32

DISSOLVED		
DATE	ARSENIC	LEAD
9/12/2014	<3.0	<1.0

MW-9

DISSOLVED		
DATE	ARSENIC	LEAD
8/20/2008	<3.0	<1.0

LEGEND

D D' LINE OF CROSS-SECTION

PROPERTY BOUNDARY

MW-11 ⌖ MONITORING WELL SCREENED IN SHALLOW WATER-BEARING ZONE

MW-15 ⌖ MONITORING WELL SCREENED IN DEEP WATER-BEARING ZONE

MW-8 ⌖ DECOMMISSIONED MONITORING WELL

NOTES:
1. < DENOTES ANALYTE NOT DETECTED AT OR ABOVE THE REPORTING LIMIT LISTED.
2. RESULTS IN **BOLD** DENOTE CONCENTRATIONS EXCEEDING APPLICABLE CLEANUP LEVEL.
3. ALL RESULTS IN MICROGRAMS PER LITER.
4. AOC = AREA OF CONCERN

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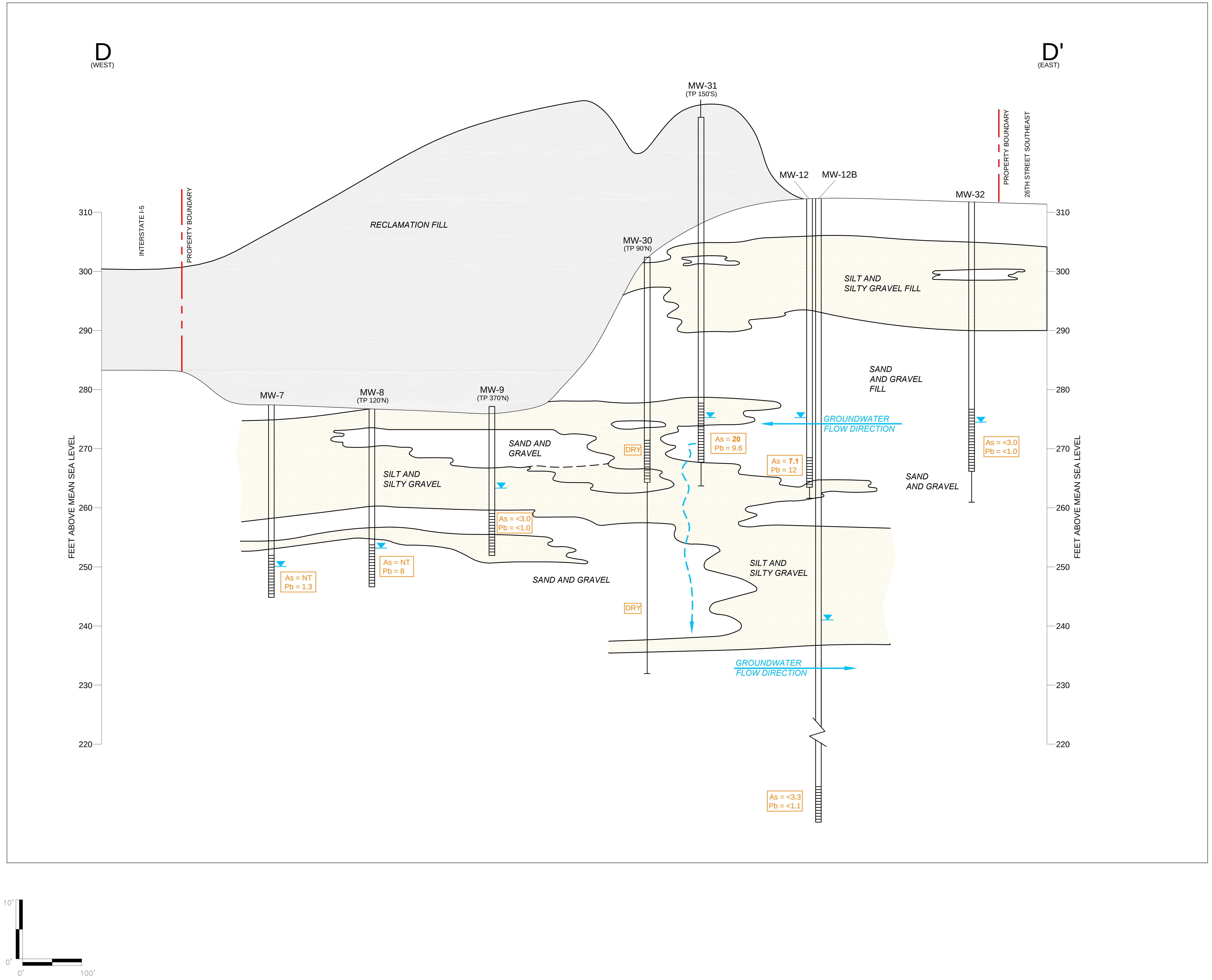
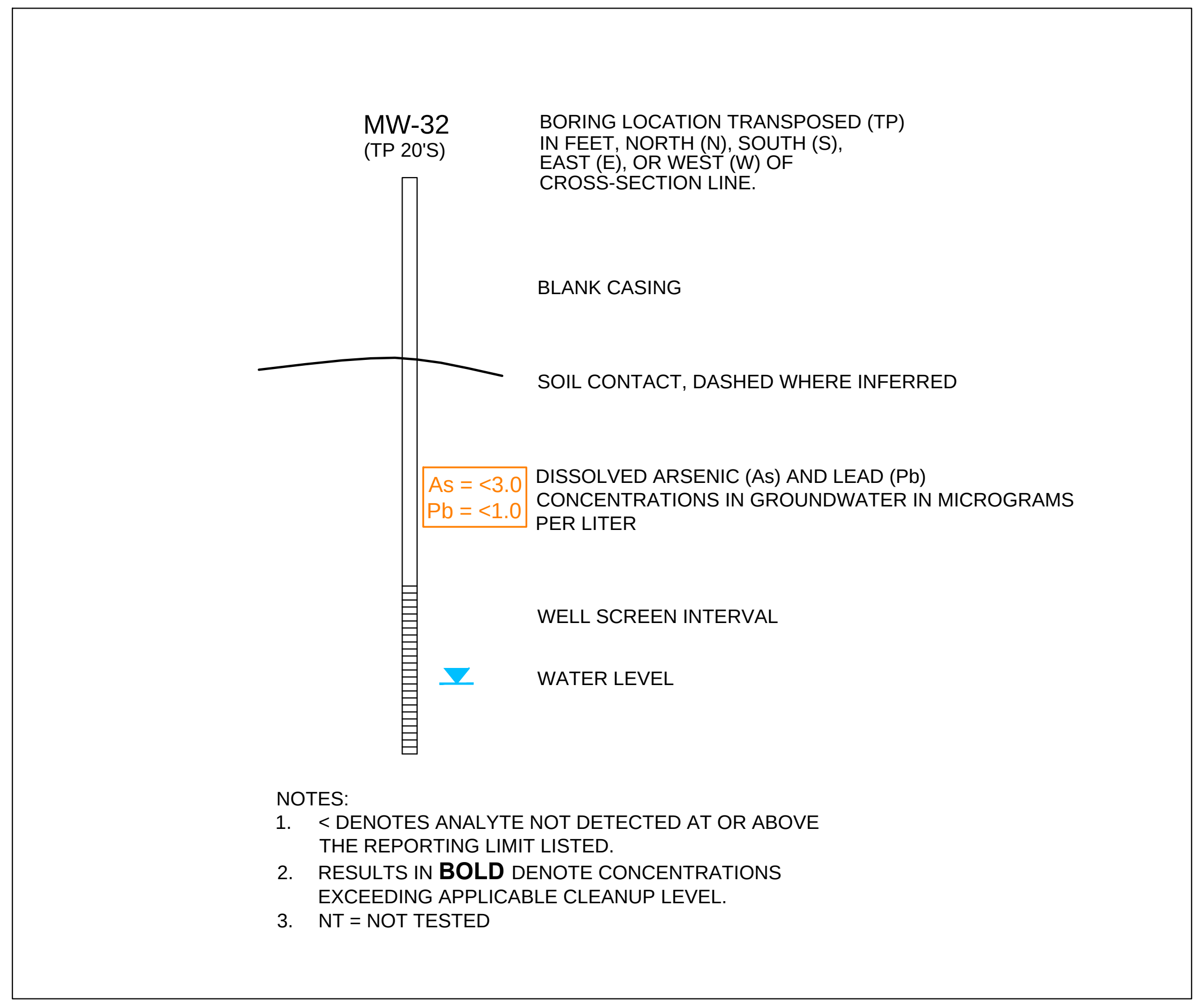
FIGURE 9

ARSENIC AND LEAD DISTRIBUTION IN GROUNDWATER
LAKEVIEW FACILITY
2800 104th STREET COURT SOUTH
LAKEWOOD, WASHINGTON

FARALLON PN: 188-002

Drawn By: DEW Checked By: BJ Date: 3/31/2015 Disk Reference: 188002b





BORING LOCATION TRANSPOSED (TP) IN FEET, NORTH (N), SOUTH (S), EAST (E), OR WEST (W) OF CROSS-SECTION LINE.

BLANK CASING

SOIL CONTACT, DASHED WHERE INFERRED

DISSOLVED ARSENIC (As) AND LEAD (Pb) CONCENTRATIONS IN GROUNDWATER IN MICROGRAMS PER LITER

WELL SCREEN INTERVAL

WATER LEVEL

NOTES:

1. < DENOTES ANALYTE NOT DETECTED AT OR ABOVE THE REPORTING LIMIT LISTED.
2. RESULTS IN **BOLD** DENOTE CONCENTRATIONS EXCEEDING APPLICABLE CLEANUP LEVEL.
3. NT = NOT TESTED

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FIGURE 10

CROSS-SECTION D-D'
LAKEVIEW FACILITY
2800 104th STREET COURT SOUTH
LAKEWOOD, WASHINGTON

FARALLON PN: 188-002

Drawn By: DEW
Checked By: BJ
Date: 3/31/2015
Disk Reference: XSEC

STANDARD AND CONDITIONAL POINTS OF COMPLIANCE FOR GROUNDWATER:

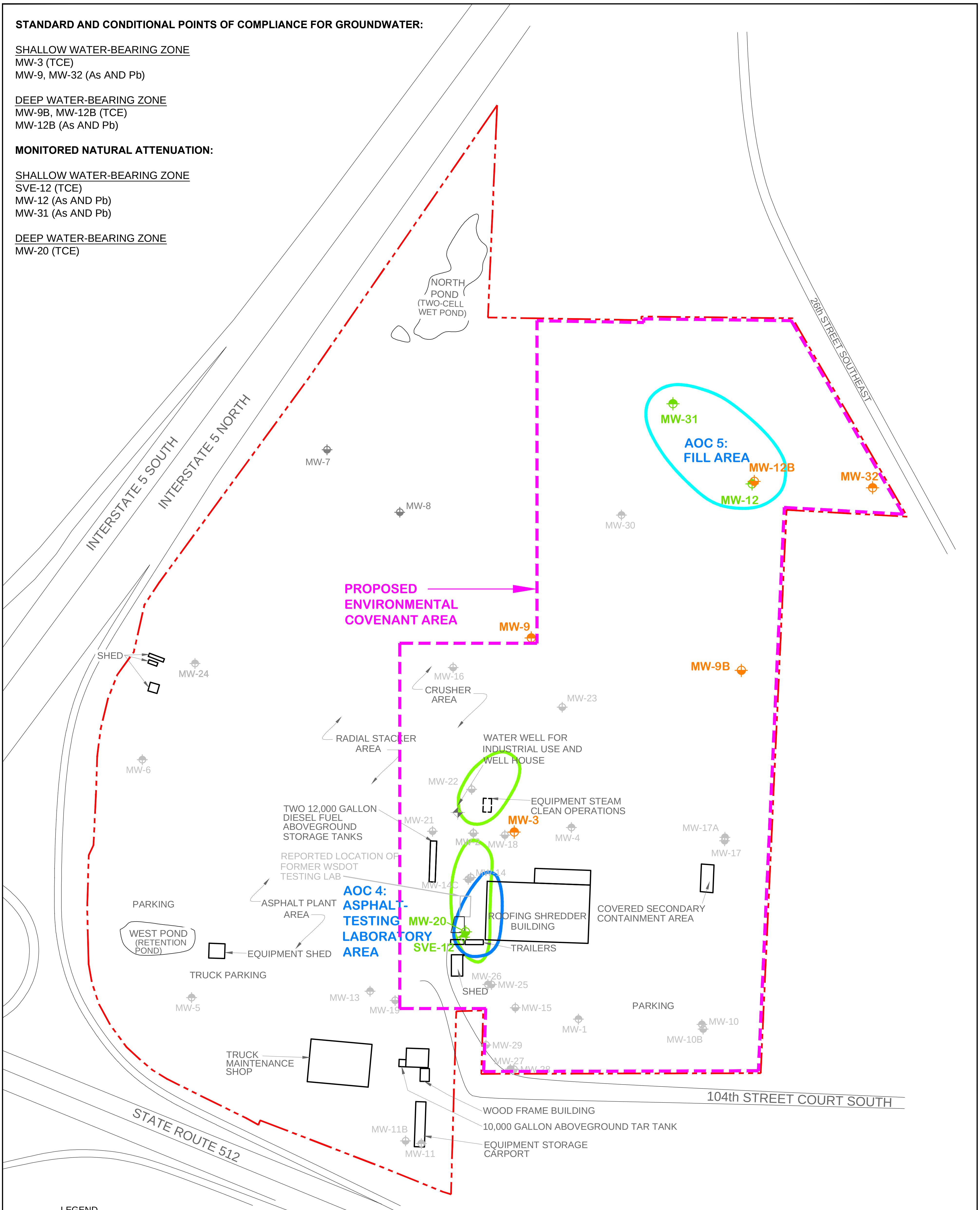
SHALLOW WATER-BEARING ZONE
MW-3 (TCE)
MW-9, MW-32 (As AND Pb)

DEEP WATER-BEARING ZONE
MW-9B, MW-12B (TCE)
MW-12B (As AND Pb)

MONITORED NATURAL ATTENUATION:

SHALLOW WATER-BEARING ZONE
SVE-12 (TCE)
MW-12 (As AND Pb)
MW-31 (As AND Pb)

DEEP WATER-BEARING ZONE
MW-20 (TCE)



LEGEND

- — - — PROPERTY BOUNDARY
- ━━ APPROXIMATE AREA WHERE TCE CONCENTRATIONS IN SHALLOW WATER-BEARING ZONE GROUNDWATER EXCEEDED THE WASHINGTON STATE MODEL TOXIC CONTROL ACT (MTCA) METHOD A CLEANUP LEVEL IN 2013
- ━━ APPROXIMATE AREA WHERE ARSENIC AND LEAD CONCENTRATIONS IN SHALLOW WATER-BEARING ZONE GROUNDWATER EXCEEDED THE MTCA METHOD A CLEANUP LEVEL IN 2013
- ━━ APPROXIMATE AREA WHERE TCE CONCENTRATIONS IN DEEP WATER-BEARING ZONE GROUNDWATER EXCEEDED MTCA METHOD A CLEANUP LEVEL IN 2013

MW-9 ⌖ CONDITIONAL POINT OF COMPLIANCE FOR SHALLOW WATER-BEARING ZONE
MW-12B ⌖ CONDITIONAL POINT OF COMPLIANCE FOR DEEP WATER-BEARING ZONE
MW-20 ⌖ MONITORING WELL USED TO MONITOR NATURAL ATTENUATION
MW-11 ⌖ MONITORING WELL SCREENED IN SHALLOW WATER-BEARING ZONE
MW-15 ⌖ MONITORING WELL SCREENED IN DEEP WATER-BEARING ZONE
WSDOT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
TCE = TRICHLOROETHENE
As = ARSENIC
Pb = LEAD
ALL LOCATIONS OF SITE FEATURES ARE APPROXIMATE.

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FIGURE 11

PROPOSED ENVIRONMENTAL COVENANT AREA AND CONDITIONAL POINTS OF COMPLIANCE FOR GROUNDWATER
LAKEVIEW FACILITY
2800 104th STREET CT S, LAKEWOOD, WA
FARALLON PN: 188-002

Drawn By: DEW
Checked By: BJ
Date: 3/31/2015
Disk Reference: 188002s

TABLES

FOCUSED FEASIBILITY STUDY/
DISPROPORTIONATE COST ANALYSIS REPORT
Lakeview Facility
2800 104th Street Court South
Lakewood, Washington

Farallon PN: 188-002

Table 1
Summary of Remediation Well Elevation Data
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Measurement Date	Top of Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
Air Sparge Wells										
AS-1	Deep	9/30/2009	279.47	280.13	280.13	81.93	82.59 to 80.59	197.54 to 199.54	33.20	246.27
		4/13/2010							25.79	253.68
AS-2	Deep	4/13/2010	283.72	284.34	284.34	87.60	88.22 to 86.22	196.12 to 198.12	27.71	256.01
AS-3	Deep	4/13/2010	281.07	281.78	281.78	83.68	84.39 to 82.39	197.39 to 199.39	25.88	255.19
AS-4	Deep	4/13/2010	281.13	281.70	281.70	90.93	91.50 to 89.50	190.20 to 192.20	24.08	257.05
AS-5	Deep	4/13/2010	280.51	281.13	281.13	82.00	82.62 to 80.62	198.51 to 200.51	27.03	253.48
AS-6	Deep	4/13/2010	281.42	282.13	282.13	94.00	94.71 to 92.71	187.42 to 189.42	25.48	255.94
AS-7	Deep	4/13/2010	277.31	278.00	278.00	72.21	72.90 to 70.90	205.10 to 207.10	27.95	249.36
AS-8	Deep	4/13/2010	280.54	281.23	281.23	83.90	84.59 to 82.59	196.64 to 198.64	30.40	250.14
AS-9	Deep	4/13/2010	279.00	279.63	279.63	93.55	94.18 to 92.18	185.45 to 187.45	31.95	247.05
AS-10	Deep	4/13/2010	277.35	278.00	278.00	113.45	114.10 to 112.10	163.90 to 165.90	30.56	246.79

Table 1
Summary of Remediation Well Elevation Data
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Measurement Date	Top of Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
Soil Vapor Extraction Wells										
SVE-1	Deep	9/30/2009	279.89	~281.00	281.00	35.25	36.36 to 24.36	244.64 to 256.64	29.90	249.99
		4/13/2010							23.30	256.59
		11/9/2010							26.16	253.73
		1/10/2012							27.01	252.88
		2/13/2012							30.12	249.77
SVE-2	Deep	9/30/2009	280.12	~280.57	280.57	35.94	36.39 to 21.39	244.18 to 259.18	31.41	248.71
		4/13/2010							24.92	255.20
		11/9/2010							27.14	252.98
SVE-3	Shallow	4/13/2010	284.25	284.71	284.71	33.03	33.49 to 8.49	251.22 to 276.22	12.60	271.65
		5/11/2012							12.75	271.50
		6/13/2012							12.78	271.47
		8/9/2012							13.40	270.85
		11/9/2010							13.01	271.24
		10/23/2014							13.34	270.91
SVE-4	Deep	4/13/2010	281.24	281.71	281.71	34.14	34.61 to 23.61	247.10 to 258.10	23.77	257.47
		11/9/2010							25.80	255.44
SVE-5	Shallow	4/13/2010	281.29	281.70	281.70	37.74	38.15 to 10.15	243.55 to 271.55	10.58	270.71
		11/19/2010							10.90	270.39
SVE-6	Shallow	4/13/2010	280.91	281.33	281.33	34.62	35.04 to 10.04	246.29 to 271.29	12.55	268.36
		11/9/2010							13.35	267.56
		1/10/2012							11.49	269.42
		2/13/2012							11.15	269.76
		10/23/2014							11.70	269.21
SVE-7	Deep	4/13/2010	281.60	282.10	282.10	34.10	34.60 to 22.60	247.50 to 259.50	27.33	254.27
		11/9/2010							26.73	254.87

Table 1
Summary of Remediation Well Elevation Data
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Measurement Date	Top of Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
SVE-8	Deep	4/13/2010	277.56	278.11	278.11	34.10	34.65 to 18.65	243.46 to 259.46	24.36	253.20
		11/9/2010							27.00	250.56
		1/10/2012							24.40	253.16
		2/13/2012							25.95	251.61
		4/10/2012							21.48	256.08
SVE-9	Deep	4/13/2010	280.75	281.25	281.25	34.40	34.90 to 12.90	246.35 to 268.35	23.12	257.63
		11/9/2010							23.41	257.34
SVE-10	Shallow	4/13/2010	279.11	279.64	279.64	38.45	38.98 to 5.98	240.66 to 273.66	11.50	267.61
		11/9/2010							12.56	266.55
		10/23/2014							NM	
SVE-11	Deep	4/13/2010	277.57	278.02	278.02	47.54	47.99 to 21.99	230.03 to 256.03	26.70	250.87
		10/23/2014							13.35	264.22
SVE-12	Shallow	4/13/2010	281.99	282.51	282.51	19.35	19.87 to 4.87	262.64 to 277.64	11.24	270.75
		11/9/2010							11.64	270.35
		11/8/2011							11.66	270.33
		8/9/2012							12.01	269.98
		11/30/2012							11.55	270.44
		10/23/2014							11.96	270.03

NOTES:

[1] Feet above mean sea level (msl); Vertical datum NGVD 29.

Table 2
Summary of Monitoring Well Elevation Data
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Measurement Date	Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
Shallow Water-Bearing Zone										
MW-1	Shallow	8/19/2008	313.65	NA	309.57	52.95	48.87 to 33.87	260.70 to 275.70	39.70	273.95
		9/17/2008							40.30	273.35
		10/17/2008							40.71	272.94
		2/2/2009							35.89	277.76
		9/30/2009							39.56	274.09
		4/12/2010							35.65	278.00
		11/19/2010							NM	
		2/1/2011							NM	
		5/4/2011							NM	
		8/2/2011							34.76	278.89
		11/8/2011							38.05	275.60
		11/30/2012							36.43	277.22
		6/12/2013							NM	
		10/23/2014							38.00	275.65
MW-3	Shallow	8/19/2008	279.31	279.78	278.20	22.00	20.89 to 7.62	257.31 to 271.69	11.54	267.77
		9/17/2008							12.37	266.94
		10/13/2008							12.26	267.05
		2/2/2009							9.72	269.59
		9/30/2009							10.74	268.57
		4/12/2010							9.67	269.64
		11/19/2010							NM	
		2/1/2011							NM	
		5/4/2011							NM	
		8/2/2011							10.02	269.29
		11/8/2011							10.10	269.21
		6/12/2013							NM	
		10/23/2014							10.18	269.13
MW-4	Shallow	8/19/2008	280.77	281.32	279.99	24.73	23.95 to 10.47	256.04 to 270.30	13.73	267.04
		9/17/2008							14.21	266.56
		10/13/2008							14.30	266.47
		2/2/2009							11.73	269.04
		9/30/2009							13.25	267.52
		4/12/2010							11.35	269.42
		11/19/2010							NM	
		2/1/2011							NM	
		5/4/2011							NM	
		8/2/2011							11.95	268.82
		11/8/2011							NM	
		6/12/2013							NM	
		10/23/2014							12.83	267.94

Table 2
Summary of Monitoring Well Elevation Data
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Measurement Date	Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
MW-5	Shallow	8/19/2008	282.99	283.26	283.26	16.68	16.95 to 9.95	266.31 to 273.31	11.40	271.59
		9/17/2008							11.23	271.76
		10/13/2008							11.24	271.75
		2/2/2009							8.69	274.30
		9/30/2009							10.47	272.52
		4/12/2010							8.38	274.61
		11/19/2010							NM	
		2/1/2011							NM	
		5/4/2011							NM	
		8/2/2011							9.84	273.15
		11/8/2011							10.22	272.77
		6/12/2013							NM	
		10/23/2014							9.31	273.68
MW-6	Shallow	8/19/2008	274.38	274.96	274.96	10.88	11.46 to 4.46	263.50 to 270.50	9.72	264.66
		9/17/2008							8.96	265.42
		10/13/2008							8.98	265.40
		2/2/2009							4.96	269.42
		9/30/2009							8.29	266.09
		4/12/2010							4.50	269.88
		11/19/2010							NM	
		2/1/2011							NM	
		5/4/2011							NM	
		8/2/2011							6.90	267.48
		11/8/2011							7.55	266.83
		6/12/2013							NM	
		10/23/2014							NM	
MW-9	Shallow	8/19/2008	278.15	278.67	277.17	25.00	24.02 to 17.02	253.15 to 260.15	14.48	263.67
		9/17/2008							14.94	263.21
		10/13/2008							14.79	263.36
		2/2/2009							11.37	266.78
		9/30/2009							13.75	264.40
		4/12/2010							11.00	267.15
		11/19/2010							NM	
		2/1/2011							NM	
		5/4/2011							NM	
		8/2/2011							12.18	265.97
		11/8/2011							12.32	265.83
		6/12/2013							NM	
		10/23/2014	278.06	278.60	277.10			253.06 to 260.06	13.28	264.78

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Well Identification	Water-Bearing Zone	Measurement Date	Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
MW-10	Shallow	8/19/2008	313.18	NA	311.18	41.81	39.81 to 32.81	271.37 to 278.37	36.99	276.19
		9/17/2008							39.42	273.76
		10/13/2008							38.56	274.62
		2/2/2009							33.05	280.13
		9/30/2009							38.60	274.58
		4/12/2010							32.99	280.19
		11/19/2010							NM	
		2/1/2011							NM	
		5/4/2011							NM	
		8/2/2011							36.70	276.48
		11/8/2011							36.93	276.25
		6/12/2013							NM	
		10/23/2014							32.90	280.28
MW-11[2]	Shallow	8/19/2008	286.70	287.53	287.53	14.46	15.29 to 8.29	272.24 to 279.24	10.38	276.32
		9/17/2008							10.92	275.78
		10/13/2008							11.27	275.43
		2/2/2009							6.20	280.50
		9/30/2009							10.30	276.40
		4/12/2010							6.22	280.48
		11/19/2010							NM	
		2/1/2011	287.13	287.74	287.74	12.11	15.50 to 8.50		6.58	280.55
		5/4/2011							6.40	280.73
		8/2/2011							8.08	279.05
		11/8/2011							9.60	277.53
		11/30/2012							7.30	279.83
		6/12/2013							NM	
		10/23/2014							NM	
MW-12	Shallow	10/13/2008	313.32	313.88	313.88	48.15	48.71 to 43.71	265.17 to 270.17	37.20	276.12
		2/2/2009							34.05	279.27
		9/30/2009							37.00	276.32
		1/13/2010							33.60	279.72
		4/12/2010							33.40	279.92
		11/19/2010							35.30	278.02
		2/1/2011							33.24	280.08
		5/4/2011							33.01	280.31
		8/2/2011							35.25	278.07
		11/8/2011							36.63	276.69
		6/12/2013							34.82	278.50
		10/23/2014							36.41	276.91

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Well Identification	Water-Bearing Zone	Measurement Date	Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
MW-13	Shallow	10/13/2008	284.73	284.97	284.97	24.14	24.38 to 19.38	260.59 to 265.59	33.40	251.33
		2/2/2009							16.80	267.93
		9/30/2009							17.44	267.29
		4/12/2010							15.36	269.37
		11/19/2010							NM	
		2/1/2011							14.90	269.83
		5/4/2011							13.80	270.93
		8/2/2011							13.20	271.53
		11/8/2011							14.59	270.14
		11/30/2012							14.84	269.89
		6/12/2013							NM	
		10/23/2014							NM	
MW-17A	Shallow	2/2/2009	281.72	282.23	282.23	34.70	35.21 to 25.21	247.02 to 257.02	7.69	274.03
		9/30/2009							10.80	270.92
		4/12/2010							6.66	275.06
		11/19/2010							NM	
		2/1/2011							NM	
		5/4/2011							5.58	276.14
		8/2/2011							7.94	273.78
		11/8/2011							9.46	272.26
		6/12/2013							NM	
		10/23/2014							9.67	272.05
MW-24[3]	Shallow	10/6/2010	NA	NA	NA	3.55	~ 4 to ~ 2	NA to NA	0.38	
		11/19/2010							NM	
		2/1/2011	277.59	277.92	277.92	7.37	7.70 to 5.70	270.22 to 272.22	3.70[4]	274.22
		5/4/2011							4.03	273.89
		8/2/2011							5.30	272.62
		11/8/2011							4.30	273.62
		6/12/2013							NM	
		10/23/2014							NM	
MW-26	Shallow	8/6/2012	279.30	279.70	279.70	9.88	10.28 to 2.78	269.42 to 276.97	Dry	
		8/9/2012							Dry	
		9/24/2012							Dry	
		11/30/2012							8.24	271.06
		12/12/2012							7.11	272.19
		12/21/2012							5.52	273.78
		6/12/2013							NM	
		10/23/2014							9.55	269.75
MW-27	Shallow	1/15/2013	311.97	312.37	312.37	41.75	42.2 to 27.2	270.2 to 285.2	32.21	279.8
		6/12/2013							NM	
		10/23/2014							23.21	288.76

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Well Identification	Water-Bearing Zone	Measurement Date	Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
MW-30	Shallow	9/10/2014	303.66	304.20	304.20	37.65	38.2 to 28.2	266.0 to 276.0	Dry	
		9/12/2014							Dry	
		10/23/2014							Dry	
		10/30/2014							Dry	
MW-31	Shallow	9/10/2014	324.89	325.19	325.19	55.86	56.2 to 46.2	269.0 to 279.0	48.33	276.56
		9/12/2014							48.33	276.56
		10/23/2014				55.90			48.75	276.14
		10/30/2014							48.81	276.08
MW-32	Shallow	9/10/2014	312.99	313.34	313.34	44.62	45.0 to 35.0	268.4 to 278.4	36.19	276.80
		9/12/2014							36.11	276.88
		10/23/2014							36.15	276.84
Deep Water-Bearing Zone										
MW-2	Deep	8/19/2008	278.90	279.15	279.15	34.30	34.55 to 19.54	244.60 to 259.36	32.50	246.40
		9/17/2008							32.74	246.16
		10/13/2008							32.50	246.40
		2/12/2009							27.42	251.48
		9/30/2009							31.66	247.24
		4/12/2010							25.23	253.67
		11/4/2010							28.32	250.58
		2/1/2011							23.75	255.15
		5/4/2011							21.14	257.76
		8/2/2011							26.73	252.17
		11/8/2011							30.23	248.67
		1/10/2012							27.20	251.70
		2/13/2012							29.11	249.79
		4/10/2012							25.60	253.30
		6/12/2013							27.68	251.22
		10/23/2014							NM	
MW-7 (Inaccessible Since April 2010)	NA	8/19/2008	278.09	278.45	278.45	32.50	32.86 to 25.86	245.59 to 252.59	27.78	250.31
		9/17/2008							29.63	248.46
		10/13/2008							29.92	248.17
		2/2/2009							17.26	260.83
		9/30/2009							27.70	250.39
		4/12/2010							15.59	262.50
		11/4/2010							NA	NA
MW-8 (Inaccessible)	NA	8/19/2008 through 2014	275.51 (Approx. Elev.)	NA	NA	28.00	NA	247.51 to 254.51	NA	NA

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Well Identification	Water-Bearing Zone	Measurement Date	Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
MW-9B	Deep	2/2/2009	301.23	301.55	301.55	119.00	119.32 to 109.32	182.23 to 192.23	56.29	244.94
		9/30/2009							61.80	239.43
		4/12/2010							54.70	246.53
		11/4/2010							NM	
		2/1/2011							53.24	247.99
		5/4/2011							52.25	248.98
		8/2/2011							NM	
		11/8/2011							58.10	243.13
		6/12/2013							NM	
		10/23/2014							NM	
MW-10B	Deep	2/2/2009	310.91	311.27	311.27	127.00	127.36 to 117.36	183.91 to 193.91	59.20	251.71
		9/30/2009							63.70	247.21
		4/12/2010							58.16	252.75
		11/4/2010							NM	
		2/1/2011							56.82	254.09
		5/4/2011							NM	
		8/2/2011							NM	
		11/8/2011							61.50	249.41
		6/12/2013							NM	
		10/23/2014							NM	
MW-11B[2]	Deep	2/2/2009	287.31	287.53	287.53	58.67	58.89 to 48.89	228.64 to 238.64	27.40	259.91
		9/30/2009							32.40	254.91
		4/12/2010							26.80	260.51
		11/4/2010							NM	
		2/1/2011	287.05	287.40	287.40	58.67	58.76 to 48.76		27.55	259.50
		5/4/2011							25.65	261.40
		8/2/2011							NM	
		11/8/2011							30.69	256.36
		11/30/2012							28.18	258.87
		6/12/2013							NM	
		10/23/2014							29.40	257.65
MW-12B	Deep	2/2/2009	313.53	313.74	313.74	121.00	121.21 to 111.21	192.53 to 202.53	68.94	244.59
		9/30/2009							74.15	239.38
		4/12/2010							67.40	246.13
		11/4/2010							NM	
		2/1/2011							66.10	247.43
		5/4/2011							NM	
		8/2/2011							71.81	241.72
		11/8/2011							70.92	242.61
		6/12/2013							NM	
		10/23/2014							NM	

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Well Identification	Water-Bearing Zone	Measurement Date	Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
MW-14[2]	Deep	10/13/2008	279.79	280.28	280.28	55.30	55.79 to 50.79	224.49 to 229.49	32.70	247.09
		2/2/2009							27.17	252.62
		9/30/2009	279.52						32.01	247.51
		4/12/2010							25.15	254.37
		11/4/2010							28.37	251.15
		2/1/2011							24.45	255.07
		5/4/2011							24.30	255.22
		8/2/2011							28.05	251.47
		11/8/2011							33.30	246.22
		1/10/2012							29.10	250.42
		2/13/2012							29.00	250.52
		6/12/2013							27.92	251.60
		10/23/2014							NM	
MW-14C	Deep	2/2/2009	279.99	280.35	280.35	77.22	77.58 to 67.58	202.77 to 212.77	27.80	252.19
		9/30/2009							33.45	246.54
		4/12/2010							27.00	252.99
		11/4/2010							NM	
		2/1/2011							NM	
		5/4/2011							NM	
		8/2/2011							NM	
		11/8/2011							NM	
		6/12/2013							NM	
		10/23/2014							NM	
MW-15	Deep	10/13/2008	278.37	278.66	278.66	48.24	48.53 to 43.53	230.13 to 235.13	24.75	253.62
		2/12/2009							20.53	257.84
		9/30/2009							23.98	254.39
		4/12/2010							15.30	263.07
		11/4/2010							20.25	258.12
		2/1/2011							16.34	262.03
		5/4/2011							17.30	261.07
		8/2/2011							20.69	257.68
		11/8/2011							27.45	250.92
		9/24/2012							28.96	249.41
		11/30/2012							21.25	257.12
		6/12/2013							NM	
		10/23/2014							NM	

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Well Identification	Water-Bearing Zone	Measurement Date	Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
MW-16	Deep	10/13/2008	278.00	278.23	278.23	37.41	37.64 to 32.64	240.59 to 250.59	33.64	244.36
		2/2/2009							27.20	250.80
		9/30/2009							32.25	245.75
		4/12/2010							24.87	253.13
		11/4/2010							29.59	248.41
		2/1/2011							24.35	253.65
		5/4/2011							23.30	254.70
		8/2/2011							28.70	249.30
		11/8/2011							31.51	246.49
		6/12/2013							NM	
		10/23/2014							NM	
MW-17	Deep	10/13/2008	281.78	281.96	281.96	50.03	50.21 to 40.21	231.75 to 241.75	39.80	241.98
		2/2/2009							34.15	247.63
		9/30/2009							38.60	243.18
		4/12/2010							NM	
		11/4/2010							NM	
		2/1/2011							30.00	251.78
		5/4/2011							29.20	252.58
		8/2/2011							NM	
		11/8/2011							35.30	246.48
		6/12/2013							NM	
		10/23/2014							NM	
MW-18	Deep	2/2/2009	277.67	278.09	278.09	59.89	60.31 to 50.31	217.78 to 227.78	26.99	250.68
		9/30/2009							31.80	245.87
		4/12/2010							25.30	252.37
		11/4/2010							28.55	249.12
		2/1/2011							24.51	253.16
		5/4/2011							22.73	254.94
		8/3/2011							28.30	249.37
		11/8/2011							32.75	244.92
		1/10/2012							29.29	248.38
		2/13/2012							28.96	248.71
		4/10/2012							29.44	248.23
		6/12/2013							NM	
		10/23/2014							NM	

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							(feet below ground)	(feet msl)[1]		
MW-19	Deep	2/2/2009	284.46	284.71	284.71	55.78	56.03 to 46.03	228.68 to 238.68	26.89	257.57
		9/30/2009							31.78	252.68
		4/12/2010							26.03	258.43
		11/4/2010							28.68	255.78
		2/1/2011							25.89	258.57
		5/4/2011							25.97	258.49
		8/2/2011							26.53	257.93
		11/8/2011							34.95	249.51
		9/24/2012							36.60	247.86
		11/30/2012							30.49	253.97
		6/12/2013							NM	
		10/23/2014							31.60	252.86
MW-20	Deep	9/30/2009	281.58	281.90	281.90	58.45	58.77 to 48.77	223.13 to 233.13	30.83	250.75
		4/12/2010							24.82	256.76
		11/4/2010							27.55	254.03
		2/1/2011							24.64	256.94
		5/4/2011							24.65	256.93
		8/2/2011							27.40	254.18
		11/8/2011							33.49	248.09
		5/11/2012							26.40	255.18
		6/13/2012							26.77	254.81
		8/9/2012							33.07	248.51
		9/24/2012							35.28	246.30
		11/30/2012							29.21	252.37
		6/12/2013							27.95	253.63
		10/23/2014							NM	
MW-21	Deep	9/30/2009	281.23	281.85	281.85	55.18	55.80 to 45.80	226.05 to 236.05	36.00	245.23
		4/12/2010							28.63	252.60
		11/4/2010							31.96	249.27
		2/1/2011							28.12	253.11
		5/4/2011							27.58	253.65
		8/2/2011							32.56	248.67
		11/8/2011							35.60	245.63
		6/12/2013							NM	
		10/23/2014							NM	

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Well Identification	Water-Bearing Zone	Measurement Date	Casing Elevation (feet msl)[1]	Monument Rim Elevation (feet msl)[1]	Ground Elevation (feet msl)[1]	Total Depth of Well (feet below top of casing)	Screen Interval		Depth to Groundwater (feet below top of casing)	Groundwater Elevation (feet msl)[1]
							(feet below ground)	(feet msl)[1]		
MW-22	Deep	9/30/2009	278.69	279.14	279.14	54.86	55.31 to 45.31	223.83 to 233.83	34.62	244.07
		4/12/2010							27.42	251.27
		11/4/2010							31.00	247.69
		2/1/2011							26.92	251.77
		5/4/2011							24.16	254.53
		8/2/2011							31.69	247.00
		11/8/2011							33.96	244.73
		6/12/2013							30.10	248.59
		10/23/2014							NM	
MW-23	Deep	11/24/2009	277.95	278.24	278.24	56.50	56.79 to 46.79	221.45 to 231.45	36.03	241.92
		4/12/2010							30.47	247.48
		11/4/2010							34.01	243.94
		2/1/2011							29.51	248.44
		5/4/2011							28.59	249.36
		8/2/2011							34.97	242.98
		11/8/2011							34.68	243.27
		6/12/2013							32.62	245.33
		10/23/2014							NM	
MW-25	Deep	8/6/2012	279.43	279.75	279.75	35.54	35.86 to 20.86	243.89 to 258.89	27.40	252.03
		8/9/2012							29.14	250.29
		9/24/2012							29.20	250.23
		11/30/2012							17.08	262.35
		12/6/2012							16.60	262.83
		6/12/2013							16.77	262.66
		10/23/2014							NM	
MW-28	Deep	1/15/2013	312.05	312.46	312.46	58.23	58.6 to 48.6	253.8 to 263.8	32.87	279.2
		10/23/2014							34.30	277.8
MW-29	Deep	1/15/2013	305.21	305.63	305.63	69.35	69.8 to 59.8	235.9 to 245.9	42.40	262.8
		10/23/2014							47.59	257.6

NOTES:

[1] Feet above mean sea level (msl); Vertical datum NGVD 29.

[2] Monitoring well casing shortened or extended. The new top of casing elevation was resurveyed by Farallon Consulting, L.L.C.

NA = not available
NM = not measured

Table 3
Soil Analytical Results for AOC-5
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Boring/Well Identification	Sample Identification	Sample Date	Depth (feet bgs)[1]	Analytical Results (milligrams per kilogram)[2]		
				Trichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene
MW-20	MW20-092509-11	9/25/2009	11	0.011	0.0057	0.0012
MW-21	MW21-092809-20	9/28/2009	20	<0.0012	<0.0012	<0.0012
MW-22	MW22-092809-14.5	9/28/2009	14.5	<0.0013	<0.0013	<0.0013
SVE-1	SVE1-092409-25	9/24/2009	25	0.0060	<0.0015	<0.0015
SVE-2	SVE2-092209-10	9/22/2009	10	<0.0012	<0.0012	<0.0012
	SVE2-092209-23	9/22/2009	23	<0.0012	<0.0012	<0.0012
SVE-12	SVE-12-5	2/5/2010	5.0	<0.0010	<0.0010	<0.0010
AS-1	AS1-092309-27.5	9/23/2009	27.5	<0.0011	0.0013	<0.0011
B-2	B2-6.5	7/16/2012	6.5	<0.0012	<0.0012	<0.0012
	B2-11.7	7/16/2012	11.7	<0.0012	<0.0012	<0.0012
	B2-13.5	7/16/2012	13.5	<0.0012	<0.0012	<0.0012
B-3	B3-2.4	7/16/2012	2.4	<0.0013	<0.0013	<0.0013
	B3-7.1	7/16/2012	7.1	<0.0014	<0.0014	<0.0014
	B3-7.9	7/16/2012	7.9	<0.0011	<0.0011	<0.0011
B-4	B4-2.9	7/16/2012	2.9	<0.0013	<0.0013	<0.0013
	B4-7.1	7/16/2012	7.1	<0.0010	<0.0010	<0.0010
B-5	B5-1.1	7/16/2012	1.1	<0.0011	<0.0011	<0.0011
	B5-1.8	7/16/2012	1.8	<0.0012	<0.0012	<0.0012
B-6	B6-2.1	7/16/2012	2.1	0.0012	<0.0010	<0.0010
	B6-9.5	7/16/2012	9.5	<0.0010	<0.0010	<0.0010
MTCA Levels for Soil[3]				**0.03**	**2**	**4,000[4]**

Table 3
Soil Analytical Results for AOC-5
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Boring/Well Identification	Sample Identification	Sample Date	Depth (feet bgs)[1]	Analytical Results (milligrams per kilogram)[2]		
				Trichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene
B-7	B7-2.2	7/16/2012	2.2	<0.0012	<0.0012	<0.0012
	B7-7.2	7/16/2012	7.2	<0.00094	<0.00094	<0.00094
B-9	B9-2.9	7/16/2012	2.9	<0.0013	<0.0013	<0.0013
	B9-7.0	7/16/2012	7.0	0.0033	<0.0011	<0.0011
MW-25	MW25-15.0	8/6/2012	15.0	0.0036	<0.00097	<0.00097
	MW25-18.0	8/6/2012	18.0	0.019	<0.00092	<0.00092
	MW25-25.0	8/6/2012	25.0	0.0092	<0.0012	<0.0012
	MW25-35.0	8/6/2012	35.0	0.0058	<0.0012	<0.0012
MW-26	MW26-2.0	8/6/2012	2.0	<0.00091	<0.00091	<0.00091
	MW26-10.0	8/6/2012	10.0	0.0027	<0.0011	<0.0011
MW-28	MW28-25.3	1/5/2013	25.3	<0.00090	<0.00091	<0.00091
	MW28-50.3	1/5/2013	50.3	<0.00083	<0.00091	<0.00091
MW-29	MW29-35.0	1/12/2013	35.0	<0.00073	<0.00091	<0.00091
MTCA Levels for Soil[3]				**0.03**	**2**	**4,000[4]**

NOTES:

< denotes analyte not detected at or exceeding the reporting limit listed.

HVOCs = halogenated volatile organic compounds

[1] Depth in feet below ground surface (bgs).

[2] Analyzed by U.S. Environmental Protection Agency Method 8260B/8260C.

[3] Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

[3] MTCA Cleanup Levels and Risk Calculations, Version 3.1, Standard Method B Values for Groundwater, https://fortress.wa.gov/ecy/clarc/Reporting/ChemicalQuery.aspx

Table 4
Soil Analytical Results for AOC-5
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Boring/Monitoring Well Identification	Sample Identification	Sample Date	Depth (feet bgs)[1]	Analytical Results (milligrams per kilogram)[2]	
				Arsenic	Lead
Borings					
MW-30	MW-30-3.0	9/9/2014	3	<15	20
	MW-30-29.0	9/9/2014	29	<11	31
	MW-30-37.0	9/9/2014	37	<12	<5.8
MW-31	MW-31-3.0	9/8/2014	3	<11	<5.5
	MW-31-45.0	9/8/2014	45	<11	49
	MW-31-55.0	9/8/2014	55	<12	11
MW-32	MW-32-3.0	9/8/2014	3	<12	9.4
	MW-32-37.0	9/8/2014	37	<11	<5.3
	MW-32-45.0	9/8/2014	45	<12	<6.2
SS-9 (MW-12)	SS9-28-100208	10/2/2008	28	<11	28
MW-12B	MW12B-012109-33	1/21/2009	33	<12	46
SS-7	SS7-15-100108	10/1/2008	15	<12	10
Test Pits					
TP-1	TP1-020309-6	2/3/2009	6	<12	14
TP-2	TP2-020309-6	2/3/2009	6	<13	98
TP-3	TP3-020309-3	2/3/2009	3	<11	18
TP-4	TP4-020309-7	2/3/2009	7	<13	15
TP-5	TP5-020309-7	2/3/2009	7	<11	13
TP-6	TP6-020309-14	2/3/2009	14	15	51
TP-7	TP7-020309-10	2/3/2009	10	<11	<5.7
TP-8	TP8-020309-4	2/3/2009	4	<11	10
TP-9	TP9-020309-5	2/3/2009	5	<11	21
TP-10	TP10-020309-6	2/3/2009	6	<11	<5.3
MTCA Method A Cleanup Levels[3]				**20**	**250**

NOTES:

< denotes analyte not detected at or exceeding the reporting limit listed.

[1] Depth in feet below ground surface (bgs).

[2] Analyzed by U.S. Environmental Protection Agency (EPA) Method 6020/6010C.

[3] Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

Table 5
Groundwater Analytical Results for AOC 1 and AOC 3
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Area of Concern	Water-Bearing Zone	Sample Identification	Sample Date	Analytical Results (micrograms per liter)						
					GRO[1]	DRO[2]	ORO[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
MW-11	AOC 1	Shallow	MW11-081908	8/19/2008	<100	<230	<360	<0.2	<1.0	<0.2	<0.2
			MW11-020609	2/6/2009	<100	**1,000**	<410	<1.0	<1.0	<1.0	<1.0
			MW11-041310	4/13/2010	—	320	<410	—	—	—	—
			MW11-020111	2/1/2011	—	<260	<420	—	—	—	—
			MW11-050311	5/3/2011	—	<260	<420	—	—	—	—
			MW11-080211	8/2/2011	—	<280	<440	—	—	—	—
			MW11-110811	11/8/2011	—	<260	<420	—	—	—	—
MW-24	AOC 3	Shallow	MW24-100610	10/6/2010	—	<260	<420	—	—	—	—
			MW24-020111	2/1/2011	—	<260	<410	—	—	—	—
			MW24-050411	5/4/2011	—	<260	<420	—	—	—	—
			MW24-080211	8/2/2011	—	<270	<430	—	—	—	—
MTCA Method A Cleanup Levels[4]					**1,000 [5]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.

< denotes analyte not detected at or exceeding the reporting limit listed.

[1] Analyzed by Northwest Method NWTPH-Gx.

[2] Analyzed by Northwest Method NWTPH-Dx.

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

[4] Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

[5] The cleanup level for GRO is without the presence of benzene.

AOC = Area of Concern
BTEX = benzene, toluene, ethylbenzene, and total xylenes
DRO = total petroleum hydrocarbons (TPH) as diesel-range organics
GRO = TPH as gasoline-range organics
ORO = TPH as oil-range organics

Table 6
Groundwater Analytical Results for AOC 4
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	Trichloroethene	(cis) 1,2-Dichloroethene	(trans)-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2-Dichloroethane	Chloroform
Shallow Water-Bearing Zone														
MW-1	Shallow	MW1-082008	8/20/2008	Farallon	<0.20	0.32	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW1-020409	2/4/2009	Farallon	<0.20	0.51	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-1-041510	4/15/2010	Farallon	<0.20	0.28	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW1-041510-GEO	4/15/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-3	Shallow	MW3-082008	8/20/2008	Farallon	<0.20	4.3	<0.20	<0.20	<0.20	<0.20	0.66	<0.20	<0.20	1.2
		MW3-020609	2/6/2009	Farallon	<0.20	3.4	<0.20	<0.20	<0.20	<0.20	0.43	<0.20	<0.20	0.71
		Dup1-020609	2/6/2009	Farallon	<0.20	3.4	<0.20	<0.20	<0.20	<0.20	0.40	<0.20	<0.20	0.69
		MW3-041410	4/14/2010	Farallon	<0.20	2.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.56
		MW3-041410-GEO	4/14/2010	GeoEngineers	<0.50	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53
MW-4	Shallow	MW4-082008	8/20/2008	Farallon	<0.20	2.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW4-020609	2/6/2009	Farallon	<0.20	2.3	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW4-041410	4/14/2010	Farallon	<0.20	1.8	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW4-041410-GEO	4/14/2010	GeoEngineers	<0.50	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-5	Shallow	MW5-081908	8/19/2008	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW5-020309	2/3/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-5-041510	4/15/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW5-041510-GEO	4/15/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

Table 6
Groundwater Analytical Results for AOC 4
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	Trichloroethene	(cis) 1,2-Dichloroethene	(trans)-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2-Dichloroethane	Chloroform
MW-6	Shallow	MW6-081908	8/19/2008	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW6-020309	2/3/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-6-041510	4/15/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW6-041510-GEO	4/15/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-9	Shallow	MW9-082008	8/20/2008	Farallon	<0.20	2.1	<0.20	<0.20	<0.20	<0.20	0.30	<0.20	<0.20	0.41
		MW9-020309	2/3/2009	Farallon	<0.20	2.4	<0.20	<0.20	<0.20	<0.20	0.31	<0.20	<0.20	0.45
		MW-9-041510	4/15/2010	Farallon	<0.20	2.2	<0.20	<0.20	<0.20	<0.20	0.28	<0.20	<0.20	0.42
		MW9-041510-GEO	4/15/2010	GeoEngineers	<0.50	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50
MW-10	Shallow	MW10-091708	9/17/2008	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW10-020409	2/4/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-10-041510	4/15/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW10-041510-GEO	4/15/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-11	Shallow	MW11-081908	8/19/2008	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW11-020609	2/6/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW11-041310-GEO	4/13/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-12	Shallow	MW12-020609	2/6/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW12-041310-GEO	4/13/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

Table 6
Groundwater Analytical Results for AOC 4
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	**Trichloroethene**	**(cis) 1,2-Dichloroethene**	**(trans)-1,2-Dichloroethene**	**1,1-Dichloroethene**	**Vinyl Chloride**	**1,1,1-Trichloroethane**	**1,1-Dichloroethane**	**1,2-Dichloroethane**	**Chloroform**
MW-13	Shallow	MW13-101408	10/14/2008	Farallon	<0.20	<0.20	<0.20	<0.20	0.26	<0.20	0.58	0.73	0.41	<0.20
		MW13-020609	2/6/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.68	0.83	0.22	<0.20
		MW13-041310-GEO	4/13/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.94	1.1	<0.50	<0.50
MW-17A	Shallow	MW17A-020409	2/4/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW17A-041410	4/14/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW17A-041410-GEO	4/14/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-26	Shallow	MW-26-122112	12/21/2012	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
MW-27	Shallow	MW-27-011513	1/15/2013	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SVE-3	Shallow	SVE-3-051112	5/11/2012	Farallon	<0.20	0.93	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	9.8
		SVE-3-061312	6/13/2012	Farallon	<0.20	1.2	<0.20	<0.20	<0.20	<0.20	0.32	<0.20	<0.20	12
		SVE-3-080912	8/9/2012	Farallon	<0.20	1.4	<0.20	<0.20	<0.20	<0.20	0.27	<0.20	<0.20	14
SVE-6	Shallow	SVE-6-011012	1/10/2012	Farallon	<0.20	**5.4**	<0.20	<0.20	0.24	<0.20	0.66	<0.20	<0.20	8.2
		SVE-6-021312	2/13/2012	Farallon	<0.20	**5.3**	<0.20	<0.20	<0.20	<0.20	0.56	<0.20	<0.20	6.3
SVE-12	Shallow	SVE-12-041310	4/13/2010	Farallon	0.37	**10**	<0.20	<0.20	0.47	<0.20	4.7	<0.20	<0.20	0.32
		SVE12-041310-GEO	4/13/2010	GeoEngineers	<0.50	**15**	<0.50	<0.50	0.70	<0.50	7.0	<0.50	<0.50	<0.50
		SVE-12-110911	11/9/2011	Farallon	0.24	**11**	<0.20	<0.20	4.4	<0.20	5.1	<0.20	<0.20	2.7
		SVE-12-080912	8/9/2012	Farallon	0.26	**12**	<0.20	<0.20	5.9	<0.20	5.5	<0.20	<0.20	0.43
		SVE-12-061213	6/12/2013	Farallon	<0.20	**6.4**	<0.20	<0.20	4.1	<0.20	3.6	<0.20	<0.20	0.36
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

Table 6
Groundwater Analytical Results for AOC 4
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	Trichloroethene	(cis) 1,2-Dichloroethene	(trans)-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2-Dichloroethane	Chloroform
Deep Water-Bearing Zone														
MW-2	Deep	MW2-082008	8/20/2008	Farallon	<0.20	**14**	<0.20	<0.20	<0.20	<0.20	2.1	<0.20	<0.20	2.2
		MW2-021209	2/12/2009	Farallon	<0.20	**14**	<0.20	<0.20	<0.20	<0.20	1.2	<0.20	<0.20	2.0
		Dup2-021209	2/12/2009	Farallon	<0.20	**14**	<0.20	<0.20	<0.20	<0.20	1.2	<0.20	<0.20	1.9
		MW2-100109	10/1/2009	Farallon	<0.20	**9.2**	<0.20	<0.20	<0.20	<0.20	0.96	<0.20	<0.20	1.4
		MW-2-041310	4/13/2010	Farallon	<0.20	**5.1**	<0.20	<0.20	<0.20	<0.20	0.57	<0.20	<0.20	1.4
		MW2-041310-GEO	4/13/2010	GeoEngineers	<0.50	**7.3**	<0.50	<0.50	<0.50	<0.50	0.85	<0.50	<0.50	2.0
		MW-2-110410	11/4/2010	Farallon	<0.20	**10**	<0.20	<0.20	<0.20	<0.20	0.97	<0.20	<0.20	2.0
		MW-2-020111	2/1/2011	Farallon	<0.20	**13**	<0.20	<0.20	0.54	<0.20	1.8	<0.20	<0.20	0.76
		MW-2-050411	5/4/2011	Farallon	<0.20	**12**	<0.20	<0.20	0.51	<0.20	1.5	<0.20	<0.20	0.58
		MW-2-080211	8/2/2011	Farallon	<0.20	**11**	<0.20	<0.20	0.45	<0.20	1.5	<0.20	<0.20	0.54
		MW-2-1108211	11/8/2011	Farallon	<0.20	**12**	<0.20	<0.20	0.32	<0.20	1.5	<0.20	<0.20	0.92
		MW-2-011012	1/10/2012	Farallon	<0.20	**11**	<0.20	<0.20	0.44	<0.20	1.4	<0.20	<0.20	0.70
		MW-2-021312	2/13/2012	Farallon	<0.20	**11**	<0.20	<0.20	0.39	<0.20	1.5	<0.20	<0.20	0.70
		MW-2	4/10/2012	Farallon	<0.20	**6.7**	<0.20	<0.20	0.34	<0.20	0.80	<0.20	<0.20	0.30
		MW-2-061213	6/12/2013	Farallon	<0.20	4.6	<0.20	<0.20	<0.20	<0.20	0.46	<0.20	<0.20	0.40
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

Table 6
Groundwater Analytical Results for AOC 4
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	**Trichloroethene**	**(cis) 1,2-Dichloroethene**	**(trans)-1,2-Dichloroethene**	**1,1-Dichloroethene**	**Vinyl Chloride**	**1,1,1-Trichloroethane**	**1,1-Dichloroethane**	**1,2-Dichloroethane**	**Chloroform**
MW-7	Deep	MW7-082008	8/20/2008	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW7-020309	2/3/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-7-041510	4/15/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW7-041510-GEO	4/15/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-9B	Deep	MW9B-021209	2/12/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.21
		MW-9B-041410	1/14/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW9B-041410-GEO	1/14/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-10B	Deep	MW10B-020409	2/4/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-10B-041510	4/15/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW10B-041510-GEO	4/15/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-11B	Deep	MW11B-020609	2/6/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-11B-041410	4/14/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW11B-041410-GEO	4/14/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-12B	Deep	MW12B-021209	2/12/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-12B-041510	4/15/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW12B-041510-GEO	4/15/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

Table 6
Groundwater Analytical Results for AOC 4
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	**Trichloroethene**	**(cis) 1,2-Dichloroethene**	**(trans)-1,2-Dichloroethene**	**1,1-Dichloroethene**	**Vinyl Chloride**	**1,1,1-Trichloroethane**	**1,1-Dichloroethane**	**1,2-Dichloroethane**	**Chloroform**
MW-14	Deep	MW-14-101308	10/13/2008	Farallon	<0.20	**24**	<0.20	<0.20	3.5	<0.20	11	0.43	<0.20	0.33
		MW-14-021209	2/12/2009	Farallon	<0.20	**22**	<0.20	<0.20	2.0	<0.20	7.5	0.33	<0.20	0.29
		MW-14-100109	10/1/2009	Farallon	<0.20	**23**	<0.20	<0.20	2.2	<0.20	7.5	0.42	<0.20	0.30
		MW-14-041310	4/13/2010	Farallon	<0.20	**22**	<0.20	<0.20	2.2	<0.20	6.7	0.36	<0.20	0.26
		MW-14-041310-GEO	4/13/2010	GeoEngineers	<0.50	**32**	<0.50	<0.50	3.2	<0.50	10	<0.50	<0.50	<0.50
		MW-14-110410	11/4/2010	Farallon	<0.20	**29**	<0.20	<0.20	3.4	<0.20	9.3	0.43	<0.20	0.60
		MW-14-110410-X	11/4/2010	Farallon	0.21	**30**	<0.20	<0.20	3.7	<0.20	10	0.43	<0.20	0.57
		MW-14-020111	2/1/2011	Farallon	<0.20	**24**	<0.20	<0.20	2.7	<0.20	6.8	0.33	<0.20	0.38
		MW-14-050411	5/4/2011	Farallon	<0.20	**30**	<0.20	<0.20	3.7	<0.20	8.8	0.41	<0.20	0.48
		MW-14-080311	8/3/2011	Farallon	<0.20	**25**	<0.20	<0.20	2.4	<0.20	6.8	0.33	<0.20	0.41
		MW-14-110811	11/8/2011	Farallon	<0.20	**26**	<0.20	<0.20	2.2	<0.20	6.0	0.30	<0.20	0.43
		MW-14-011012	1/10/2012	Farallon	<0.20	**24**	<0.20	<0.20	2.2	<0.20	5.9	0.34	<0.20	0.59
		MW-14-021312	2/13/2012	Farallon	<0.20	**11**	<0.20	<0.20	1.6	<0.20	3.4	<0.20	<0.20	<0.20
		MW-14-061213	6/12/2013	Farallon	<0.20	**10**	<0.20	<0.20	0.75	<0.20	2.3	<0.20	<0.20	3.0
MW-14C	Deep	MW-14C-020509	2/5/2009	Farallon	<0.20	<0.20	<0.20	<0.20	0.20	<0.20	1.0	<0.20	<0.20	<0.20
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

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Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	Trichloroethene	(cis) 1,2-Dichloroethene	(trans)-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2-Dichloroethane	Chloroform
MW-15	Deep	MW15-101308	10/13/2008	Farallon	<0.20	2.8	0.45	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW15-020409	2/4/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-15-041210	4/12/2010	Farallon	<0.20	2.2	0.28	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW15-041210-GEO	4/12/2010	GeoEngineers	<0.50	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
		MW-15-110310	11/3/2010	Farallon	<0.20	2.2	0.33	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-15-020111	2/1/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-15-050411	5/4/2011	Farallon	<0.20	0.46	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-15-080211	8/2/2011	Farallon	<0.20	3.5	0.45	0.26	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-15-110911	11/9/2011	Farallon	<0.20	3.5	0.41	0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
MW-16	Deep	MW16-101308	10/13/2008	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW16-020309	2/3/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.26	<0.20	<0.20	<0.20
		MW-16-041210	4/12/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW16-041210-GEO	4/12/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
		MW-16-110410	11/4/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-16-020111	2/1/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-16-050311	5/3/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-16-080211	8/2/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	<0.20	<0.20	<0.20
		MW-16-110911	11/9/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.22	<0.20	<0.20	<0.20
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

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Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	Trichloroethene	(cis) 1,2-Dichloroethene	(trans)-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2-Dichloroethane	Chloroform
MW-17	Deep	MW17-101308	10/13/2008	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW17-020409	2/4/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW17-041410	4/14/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW17-041410-GEO	4/14/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-18	Deep	MW18-020509	2/5/2009	Farallon	<0.20	<0.20	<0.20	<0.20	2.6	<0.20	9.9	0.63	<0.20	<0.20
		MW18-100109	10/1/2009	Farallon	<0.20	<0.20	<0.20	<0.20	4.3	<0.20	15	0.83	<0.20	<0.20
		MW-18-041210	4/12/2010	Farallon	<0.20	<0.20	<0.20	<0.20	4.0	<0.20	12	0.75	<0.20	<0.20
		MW18-041210-GEO	4/12/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	6.0	<0.50	19	1.2	<0.50	<0.50
		MW-18-110310	11/3/2010	Farallon	<0.20	<0.20	<0.20	<0.20	2.2	<0.20	6.9	0.75	<0.20	<0.20
		MW-18-020111	2/1/2011	Farallon	<0.20	<0.20	<0.20	<0.20	2.2	<0.20	6.7	0.69	<0.20	<0.20
		MW-18-050411	5/4/2011	Farallon	<0.20	<0.20	<0.20	<0.20	0.71	<0.20	1.5	<0.20	<0.20	<0.20
		MW-18-080311	8/3/2011	Farallon	<0.20	<0.20	<0.20	<0.20	0.81	<0.20	2.6	0.56	<0.20	<0.20
		MW-18-110811	11/8/2011	Farallon	<0.20	<0.20	<0.20	<0.20	0.72	<0.20	2.3	0.48	<0.20	<0.20
		MW-18-011012	1/10/2012	Farallon	<0.20	<0.20	<0.20	<0.20	1.1	<0.20	2.8	0.59	<0.20	<0.20
		MW-18-021312	2/13/2012	Farallon	<0.20	<0.20	<0.20	<0.20	0.28	<0.20	0.78	<0.20	<0.20	<0.20
		MW-18	4/10/2012	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.47	0.30	<0.20	<0.20
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

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Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	Trichloroethene	(cis) 1,2-Dichloroethene	(trans)-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2-Dichloroethane	Chloroform
MW-19	Deep	MW19-020509	2/5/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-19-041210	4/12/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW19-041210-GEO	4/12/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
		MW-19-110310	11/3/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-19-020111	2/1/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-19-050411	5/4/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-19-080311	8/3/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-19-110911	11/9/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
MW-20	Deep	MW20-093009	9/30/2009	Farallon	<0.20	**33**	<0.20	<0.20	0.43	<0.20	3.5	0.42	<0.20	<0.20
		MW-20-041310	4/13/2010	Farallon	<0.20	**33**	0.21	<0.20	0.47	<0.20	3.4	0.29	<0.20	0.23
		MW20-041310-GEO	4/13/2010	GeoEngineers	<0.50	**48**	<0.50	<0.50	0.70	<0.50	5.0	<0.50	<0.50	<0.50
		MW-20-110410	11/4/2010	Farallon	0.27	**30**	<0.20	<0.20	0.36	<0.20	3.0	0.23	<0.20	0.28
		MW-20-020111	2/1/2011	Farallon	<0.20	**19**	<0.20	<0.20	0.22	<0.20	1.7	<0.20	<0.20	0.20
		MW-20-050311	5/3/2011	Farallon	<0.20	**29**	<0.20	<0.20	0.40	<0.20	2.9	<0.20	<0.20	0.29
		MW-20-080311	8/3/2011	Farallon	<0.20	**30**	<0.20	<0.20	0.46	<0.20	2.8	<0.20	<0.20	0.28
		MW-20-110811	11/8/2011	Farallon	<0.20	**24**	0.20	<0.20	0.25	<0.20	2.0	<0.20	<0.20	0.28
		MW-20-051112	5/11/2012	Farallon	<0.20	**28**	<0.20	<0.20	0.31	<0.20	2.9	<0.20	<0.20	0.38
		MW-20-061312	6/13/2012	Farallon	<0.20	**26**	<0.20	<0.20	0.36	<0.20	2.5	<0.20	<0.20	0.37
		MW-20-080912	8/9/2012	Farallon	<0.20	**22**	<0.20	<0.20	0.24	<0.20	1.9	<0.20	<0.20	0.31
		MW-20-061213	6/12/2013	Farallon	<0.20	**20**	<0.20	<0.20	<0.20	<0.20	2.0	<0.20	<0.20	0.30
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

Table 6
Groundwater Analytical Results for AOC 4
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	Trichloroethene	(cis) 1,2-Dichloroethene	(trans)-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2-Dichloroethane	Chloroform
MW-21	Deep	MW21-100109	10/1/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-21-041310	4/13/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW21-041310-GEO	4/13/2010	GeoEngineers	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
		MW-21-110310	11/3/2010	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-21-020111	2/1/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.21	<0.20	<0.20	<0.20
		MW-21-050311	5/3/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-21-080311	8/3/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-21-110811	11/8/2011	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
MW-22	Deep	MW22-100109	10/1/2009	Farallon	<0.20	**20**	<0.20	<0.20	1.6	<0.20	5.9	0.36	<0.20	1.4
		MW-22-041210	4/12/2010	Farallon	<0.20	**19**	<0.20	<0.20	1.4	<0.20	5.0	0.28	<0.20	0.60
		FD-041210	4/12/2010	Farallon	<0.20	**19**	<0.20	<0.20	1.5	<0.20	5.1	0.31	<0.20	0.55
		MW22-041210-GEO	4/12/2010	GeoEngineers	<0.50	**29**	<0.50	<0.50	2.1	<0.50	8.4	<0.50	<0.50	0.89
		Dupe1-041210-GEO	4/12/2010	GeoEngineers	<0.50	**29**	<0.50	<0.50	2.1	<0.50	8.5	<0.50	<0.50	0.90
		MW-22-110410	11/4/2010	Farallon	<0.20	**18**	<0.20	<0.20	1.2	<0.20	4.6	0.26	<0.20	0.46
		MW-22-020111	2/1/2011	Farallon	<0.20	**12**	<0.20	<0.20	0.59	<0.20	2.6	<0.20	<0.20	0.31
		MW-22-050411	5/4/2011	Farallon	<0.20	**15**	<0.20	<0.20	0.94	<0.20	3.4	<0.20	<0.20	0.37
		MW-22-080311	8/2/2011	Farallon	<0.20	**13**	<0.20	<0.20	0.61	<0.20	2.3	<0.20	<0.20	0.34
		MW-22-110811	11/8/2011	Farallon	<0.20	**14**	<0.20	<0.20	0.65	<0.20	2.5	<0.20	<0.20	0.36
		MW-22-061213	6/12/2013	Farallon	<0.20	**12**	<0.20	<0.20	0.45	<0.20	2.3	<0.20	<0.20	0.31
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

Table 6
Groundwater Analytical Results for AOC 4
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	Trichloroethene	(cis) 1,2-Dichloroethene	(trans)-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane	1,2-Dichloroethane	Chloroform
MW-23	Deep	MW23-112409	11/24/2009	Farallon	<0.20	0.57	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-23-041210	4/12/2010	Farallon	<0.20	0.74	<0.20	<0.20	<0.20	<0.20	0.30	<0.20	<0.20	<0.20
		MW23-041210-GEO	4/12/2010	GeoEngineers	<0.50	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
		MW-23-110410	11/4/2010	Farallon	<0.20	0.68	<0.20	<0.20	<0.20	<0.20	0.21	<0.20	<0.20	<0.20
		MW-23-020111	2/1/2011	Farallon	<0.20	0.65	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-23-050311	5/3/2011	Farallon	<0.20	0.84	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-23-080311	8/3/2011	Farallon	<0.20	0.79	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-23-110911	11/9/2011	Farallon	<0.20	0.83	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
		MW-23-061213	6/12/2013	Farallon	<0.20	0.64	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
MW-25	Deep	MW-25-080912	8/9/2012	Farallon	0.26	**5.7**	<0.20	<0.20	<0.20	<0.20	0.26	<0.20	<0.20	0.46
		MW25-092412	9/24/2012	Farallon	<0.20	3.5	<0.20	<0.20	<0.20	<0.20	0.20	<0.20	<0.20	<0.20
		MW-25-061213	6/12/2013	Farallon	<0.20	2.7	<0.20	<0.20	<0.20	<0.20	0.22	<0.20	<0.20	<0.20
MW-28	Deep	MW-28-011513	1/15/2013	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.37
MW-29	Deep	MW-29-011513	1/15/2013	Farallon	<0.20	0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SVE-1	Deep	SVE1-093009	9/30/2009	Farallon	<0.20	0.68	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.6
		SVE-1-011012	1/10/2012	Farallon	<0.20	4.0	<0.20	<0.20	1.4	<0.20	2.9	0.28	<0.20	0.95
		SVE-1-021312	2/13/2012	Farallon	<0.20	**7.0**	<0.20	<0.20	1.1	<0.20	2.5	0.25	<0.20	0.81
SVE-2	Deep	SVE2-093009	9/30/2009	Farallon	<0.20	**9.7**	<0.20	<0.20	0.41	<0.20	5.2	<0.20	<0.20	0.50
		SVE2-110910	11/9/2010	Farallon	<0.20	3.4	<0.20	<0.20	<0.20	<0.20	1.3	<0.20	<0.20	0.43
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

Table 6
Groundwater Analytical Results for AOC 4
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Well Identification	Water-Bearing Zone	Sample Identification	Sample Date	Sample Collected by:	Analytical Results (micrograms per liter)[1]									
					Tetrachloroethene	**Trichloroethene**	**(cis) 1,2-Dichloroethene**	**(trans)-1,2-Dichloroethene**	**1,1-Dichloroethene**	**Vinyl Chloride**	**1,1,1-Trichloroethane**	**1,1-Dichloroethane**	**1,2-Dichloroethane**	**Chloroform**
SVE-8	Deep	SVE-8-011012	1/10/2012	Farallon	<0.20	**5.3**	<0.20	<0.20	0.29	<0.20	0.80	<0.20	<0.20	1.1
		SVE-8-021312	2/13/2012	Farallon	<0.20	**5.6**	<0.20	<0.20	0.33	<0.20	0.96	<0.20	<0.20	0.40
		SVE-8	4/10/2012	Farallon	<0.20	4.6	<0.20	<0.20	0.30	<0.20	0.62	<0.20	<0.20	<0.20
AS-1	Deep	AS1-093009	9/30/2009	Farallon	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.5
MTCA Cleanup Levels for Groundwater[2]					**5**	**5**	**16[3]**	**160[3]**	**400[3]**	**0.2**	**200**	**1,600[3]**	**5**	**80[3]**

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.

< denotes analyte not detected at or above the reporting limit listed.

[1] Analyzed by U.S. Environmental Protection Agency Method 8260B/8260C.

[2] Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

[3] MTCA Cleanup Levels and Risk Calculations, Version 3.1, Standard Method B Values for Groundwater, https://fortress.wa.gov/ecy/clarc/Reporting/ChemicalQuery.aspx

AOC = Area of Concern
Farallon = Farallon Consulting, L.L.C.
GeoEngineers = GeoEngineers, Inc.
HVOCs = halogenated volatile organic compounds

Table 7
Groundwater Analytical Results for AOC 5
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

				Analytical Results (micrograms per liter)[1]			
				Arsenic		Lead	
Well Identification	**Water-Bearing Zone**	**Sample Identification**	**Sample Date**	**Total**	**Dissolved**	**Total**	**Dissolved**
MW-30	Shallow	—	9/12/2014	Dry -- No Groundwater Sample Collected			
MW-31	Shallow	MW-31-091214	9/12/2014	**39**	**20**	**350**	9.6
		MW-31-103014	10/30/2014	—	**19**	—	5.5
MW-32	Shallow	MW-32-091214	9/12/2014	**9.1**	<3.0	7.9	<1.0
MW-12	Shallow	MW12-101408	10/14/2008	**11**	**8.2**	**50**	**29**
		MW12-020609	2/6/2009	**15**	**18**	**22**	6.1
		MW12-011310	1/13/2010	**9.2**	**9.3**	6.8	7.1
		MW12-041310	4/13/2010	**9.1**	**9.1**	4.5	3.5
		MW12-111910	11/19/2010	**7.7**	—	14	—
		MW12-020111	2/1/2011	**11**	—	6	—
		MW12-050311	5/3/2011	**16**	**12**	11	—
		MW12-080211	8/2/2011	**8.6**	**6.5**	**35**	**25**
		MW-12-1110211	11/10/2011	**9.5**	—	**22**	—
		MW-12-061313	6/13/2013	**8.4**	**8.4**	**17**	13
		MW-12-091214	9/12/2014	**16**	**7.1**	**59**	12
MW-12B	Deep	MW12B-021209	1/12/2009	<3.3	—	<1.1	—
MW-9	Shallow	MW9-082008	8/20/2008	—	<3.0	—	<1.0
MTCA Method A Cleanup Levels[2]				**5**		**15**	

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.

AOC = Area of Concern

— denotes sample not analyzed

[1] Analyzed by U.S. Environmental Protection Agency Method 200.8.

[2] Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

Table 8
Cleanup Technology Screening
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

			Score of Evaluation Criteria									
General Response Action	**Technology Type**	**Technology Process Option**	**Protectiveness**	**Permanence**	**Long-Term Effectiveness**	**Short-Term Risk Management**	**Implementability**	**Public Concerns**	**Implementation Cost**	**Total**	**Rank**	**Retain?**
No Action	None	No further action provides no control of exposure to contaminated soil or groundwater.	1	1	1	1	5	1	5	15	8	N
Institutional Controls	**Legal**	**Institutional controls comprise legal documentation that includes deed restrictions (Environmental Covenant) with Site use restrictions and health advisories.**	**3**	**1**	**4**	**4**	**5**	**3**	**5**	**25**	**1**	**Y**
Treatment In-Situ	**Chemical Oxidation**	**Chemical oxidation uses oxidants that change contaminants in soil and/or groundwater into harmless byproducts through chemical reactions. Typically chemical oxidants are injected into the subsurface through injection wells or trenches, or borings advanced by a direct-push drilling method.**	**3**	**4**	**3**	**3**	**3**	**2**	**2**	**20**	**3**	**Y**
Treatment In-Situ	Enhanced Anaerobic Bioremediation	Enhanced anaerobic bioremediation of contaminated groundwater occurs by providing an electron donor to groundwater through injection of a solution to increase the number of naturally occurring microorganisms performing anaerobic bioremediation by reductive dechlorination (i.e. hydrogen release compound, molasses, or vegetable oil). Contaminants are **de**stroyed or anaerobically degraded by gradually replacing chlorine with hydrogen atoms until the process is completed resulting in harmless end-products.	3	3	2	4	1	3	2	18	6	N
Treatment In-Situ	Thermal Treatment	In-situ thermal technologies heat contaminated soil and groundwater to change the physical and chemical properties of contaminates into a vapor phase for extraction.	4	4	4	2	2	2	1	19	5	N
Treatment In-Situ	**Air Sparging and Soil Vapor Extraction**	**In-situ air sparging injects air into the saturated zone(s) and volatizes organic contaminants. The vapors are captured in the vadose zone by the soil vapor extraction system and discharged into the atmosphere.**	**4**	**4**	**3**	**3**	**3**	**3**	**1**	**21**	**2**	**Y**
Excavation and Off-Site Disposal	**Physical Removal and Off-Site Disposal**	**Physical removal and off-site disposal of contaminated soil to a subtitle D landfill without pre-treatment. Temporary dewatering of the excavation beneath the water table and disposal of contaminated water at a permitted facility or sanitary sewer will be required.**	**3**	**4**	**4**	**3**	**3**	**2**	**1**	**20**	**3**	**Y**
Treatment In-Situ	Soil Solidification	Excavation of soil and mixing with Portland Cement to stabilize arsenic and lead in soil and prevent the leaching of metals into groundwater. The process includes mixing of excavated soil with Portland Cement on site and backfilling excavated areas with the soil-cement mixture.	4	3	3	3	1	3	1	18	6	N

NOTES:
Rank = Position relative to other technologies based on total score.
Total Score = Sum of individual scores for implementability, effectiveness, and cost.
Y = Retained for consideration in FFS.
N = Not retained for consideration in FFS.
Bold denotes general response actions, technology types, and technology process options are retained for incorporation into cleanup alternatives

Ranking Criteria
5 = Very Favorable
4 = Favorable
3 = Somewhat Favorable to Uncertain
2 = Unfavorable
1 = Very Unfavorable

Table 9
Summary of Estimated Cleanup Costs for Cleanup Alternatives 1 and 2
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

		Estimated Cost							
		Cleanup Alternative 1: Institutional Controls		Cleanup Alternative 2: Active Cleanup					
		AOC 4 and AOC 5		AOC 4				AOC 5	
		Institutional Controls		Chemical Oxidation (TCE in Shallow Water-Bearing Zone)		Air Sparge/Soil Vapor Extraction (TCE in Deep Water-Bearing Zone)		Excavation and Off-Site Disposal (Arsenic and Lead in Shallow Water-Bearing Zone)	
Remedial Action Task	**Scope of Work**	**Low Estimate**	**High Estimate**	**Low Estimate**	**High Estimate**	**Low Estimate**	**High Estimate**	**Low Estimate**	**High Estimate**
Project Management	Ongoing project management throughout the cleanup action (assume 8 percent of the total estimated cost)	$4,027	$6,815	$8,670	$17,802	$49,144	$106,676	$1,348,822	$1,619,385
Institutional Controls	Applicable to Cleanup Alternative 1, institutional controls will be in the form of an environmental Restrictive Covenant recorded on the property deed that will include site use restrictions and health advisories.	$20,000	$20,000	$0	$0	$0	$0	$0	$0
Chemical Oxidation (Detailed cost provided in Table F-1 in Appendix F)	Applicable to Cleanup Alternative 2 in AOC 4, includes engineering design, construction management, construction of injection trench, and potential multiple chemical oxidant injection events. Details of the estimate are included in Table F-1 in Appendix F. A low estimate assumes one injection. A high estimate assumes three injections.	$0	$0	$87,380	$200,521	$0	$0	$0	$0
Air Sparge/Soil Vapor Extraction (Detailed cost provided in Table F-2 in Appendix F)	Applicable to Cleanup Alternative 2 in AOC 4, includes engineering design, construction management, construction of air sparge/soil vapor extraction system upgrades, operation and maintenance, and groundwater monitoring. Details of the estimate are included in Table F-2 in Appendix F. A low estimate assumes 70 months of operation with one replacement of the compressor and blower. A high estimate assumes 152 months of operation with three blower and compressor replacement, and a ozone injection contingency.	$0	$0	$0	$0	$583,298	$1,301,451	$0	$0
Excavation and Off-Site Disposal (Detailed cost provided in Table F-3 in Appendix F)	Applicable to Cleanup Alternative 2 in AOC 5, includes engineering design, construction management, excavation, transport, and disposal of foundry fill material and concrete waste off the Site, and groundwater monitoring. Details of the estimate are included in Table F-3 in Appendix F. A low estimate assumes no performance groundwater monitoring events and four quarters of confirmation groundwater monitoring events. A high estimate assumes eight performance groundwater monitoring events, four quarters of confirmation groundwater monitoring events, and a 20 percent construction contingency.	$0	$0	$0	$0	$0	$0	$16,833,271	$20,215,319
Closure Report	Applicable to Cleanup Alternative 2, summarizing the completed cleanup action and requesting a re-instatement of No Further Action (NFA) determination from the Washington State Department of Ecology (Ecology).	$0	$0	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
Compliance Groundwater Monitoring	Long-term groundwater monitoring of contaminant concentrations at points of compliance monitoring wells. A low estimate assumes 3 groundwater monitoring events 18 months apart over the period of 4.5 years following the receipt of NFA determination for the Site from Ecology and preparation of one report to document the results of groundwater monitoring. A high estimate assumes 10 groundwater monitoring events 18 months apart over the period of 15 years following the receipt of NFA determination for the Site from Ecology and preparation of 3 reports to document the results of groundwater monitoring.	$15,338	$50,185	$0	$0	$0	$0	$0	$0
Interactions with Ecology and 5-Year Review	Interactions with Ecology and, in case of Alternative 1, a 5 year project review following receipt of NFA determination for the Site from Ecology.	$5,000	$5,000	$1,000	$2,000	$1,000	$2,000	$2,000	$2,000
Remediation System and Monitoring Well Decommissioning	Decommissioning the air sparge/soil vapor extraction system, chemical oxidant injection delivery system (As-Pb system), and monitoring well network in accordance with Washington Administrative Code 173-160 for well abandonment following the receipt of NFA determination for the Site from Ecology.	$10,000	$10,000	$5,000	$5,000	$15,000	$15,000	$10,000	$10,000
ESTIMATED CLEANUP ACTION TOTAL COST (SUBTOTAL)		**$54,365**	**$92,000**	**$117,051**	**$240,323**	**$663,442**	**$1,440,127**	**$18,209,093**	**$21,861,704**
ESTIMATED CLEANUP ACTION TOTAL COST		**$54,365** **Low Estimate**	**$92,000** **High Estimate**			**$18,989,586** ($780,493 for AOC 4 and $18,209,093 for AOC 5) **Low Estimate** (A sum of low estimates under Cleanup Alternative 2)		**$23,542,154** ($1,680,450 for AOC 4 and $21,861,704 for AOC 5) **High Estimate** (A sum of high estimates under Cleanup Alternative 2)	

AOC = area of concern
TCE = trichloroethene

Table 10
Detailed Evaluation of Cleanup Alternatives
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

	Cleanup Alternative 1 **Institutional and Engineering Controls**	**Cleanup Alternative 2** **Active Cleanup**
Description	Institutional controls in the form of an Environmental Covenant to include Site use restrictions and health advisories.	Chemical oxidation injected through an infiltration trench in the shallow saturated zone. Air sparge and soil vapor extraction in the deep saturated zone. Soil excavation and disposal.
Amount of Contaminated Soil Removed (tons)	0	327,750
THRESHOLD REQUIREMENTS		
Protection of Human Health and the Environment	**Yes** - Alternative will protect human health and the environment.	**Yes** - Alternative will protect human health and the environment.
Compliance with Cleanup Standards	**Yes** - But cleanup levels will not be met throughout the Site except over the long-term with natural attenuation processes.	**Yes** - Active remedial measure (removal) is used for soil not complying with cleanup standards.
Compliance with Applicable State and Federal Laws	**Yes** - Alternative complies with applicable laws.	**Yes** - Alternative complies with applicable laws.
Provision for Compliance Monitoring	**Yes** - Alternative includes provisions for compliance monitoring (i.e., compliance groundwater monitoring).	**Yes** - Alternative includes provisions for compliance monitoring (i.e., compliance groundwater monitoring).
OTHER REQUIREMENTS		
Permanent to the Maximum Extent Practicable (see detail below)	**Yes** - Alternative is permanent to the maximum extent practicable.	**Yes** - But while Alternative is permanent it is not considered to be practicable (see text).
Restoration Time Frame	Restoration of soil and groundwater to achieve cleanup standards at the standard points of compliance is indefinite and will be achieved through natural attenuation processes over the long-term.	Cleanup standards for groundwater are achieved now at the conditional point of compliance. Restoration time frame for soil is approximately one year for design, excavation, restoration, and confirmation soil sampling.

Table 10
Detailed Evaluation of Cleanup Alternatives
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

	Cleanup Alternative 1 **Institutional and Engineering Controls**	**Cleanup Alternative 2** **Active Cleanup**
Evaluation Criteria for Permanence to the Maximum Extent Practicable[1]		
Protectiveness (30% weighting Factor)	Alternative will achieve overall protection by preventing direct contact with affected media = 6.	Alternative will achieve overall protection by removal or insitu treatment of affected groundwater and is considered to be most protective for the Site = 8.
Permanence (20% weighting Factor)	A Restrictive Covenant will require permanent measures for future material handling (e.g., removal and disposal of affected media) to prevent exposure to subsurface affected media = 2.	Alternative has high permanence with in-situ treatment of groundwater in AOC 4, and soil removal in AOC 5. = 8.
Long-Term Effectiveness (20% weighting Factor)	Alternative is considered effective in that it implements controls to prevent direct contact with affected media and possible future removal if and when disturbed = 8.	Alternative has long-term effectiveness with removal through in situ treatment for AOC 4, and disposal of soil for AOC 5 = 6.
Short-Term Risk Management (10% weighting Factor)	Alternative does not disturb affected media in the short term; no short-term risk management needed = 8.	Alternative disturbs affected media presenting short-term risk to workers, proximate property owners, and during soil disturbance for system install and excavation = 6.
Implementability (10% weighting Factor)	Alternative is readily implementable with controls and subsurface excavation restrictions and health advisories = 10.	Alternative employs disturbing and removal of large volumes of affected soil for system install and soil solidifcation, while readily implementable, is considered less implementable than an Alternative that does not require these measures = 6.
Public Concerns (10% weighting Factor)	Alternative leaves impacted groundwater and potentially-impacted soil in place. Site is in area zoned Industrial/Air Corridor and public access is restricted. Public exposure will not occur and limited public concern is anticipated = 6.	Alternative employes removal of impacted soil and in situ treatment of impacted groundwater. Site is in area zoned Industrial/Air Corridor and public access will be restricted during construction and treatment activities. = 4.
MTCA Composite Benefit Score[1]	**6.2**	**6.8**
Overall Alternative Ranking	**2**	**1**
Cost	**$92,000**	**$23,542,154**

NOTE:

[1] Basis for overall Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Composite Benefit Score provided quantitatively with a "score" from 0 (least favorable) to 10 (most favorable) for each of the six evaluation criteria for permanence to the Maximum Extend Practicable above. MTCA Composite Benefit Scores are calculated by summing the mathematical product of the score multiplied by the indicated weighting factor for each of the six criteria. The basis for the weighting factors for the six criteria to evaluate permanence to the maximum extent practicable are obtained from Washington State Department of Ecology guidance cited in the text.

CHARTS

FOCUSED FEASIBILITY STUDY/
DISPROPORTIONATE COST ANALYSIS REPORT
Lakeview Facility
2800 104th Street Court South
Lakewood, Washington

Farallon PN: 188-002

Chart 1
TCE in Groundwater Concentration Trends
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

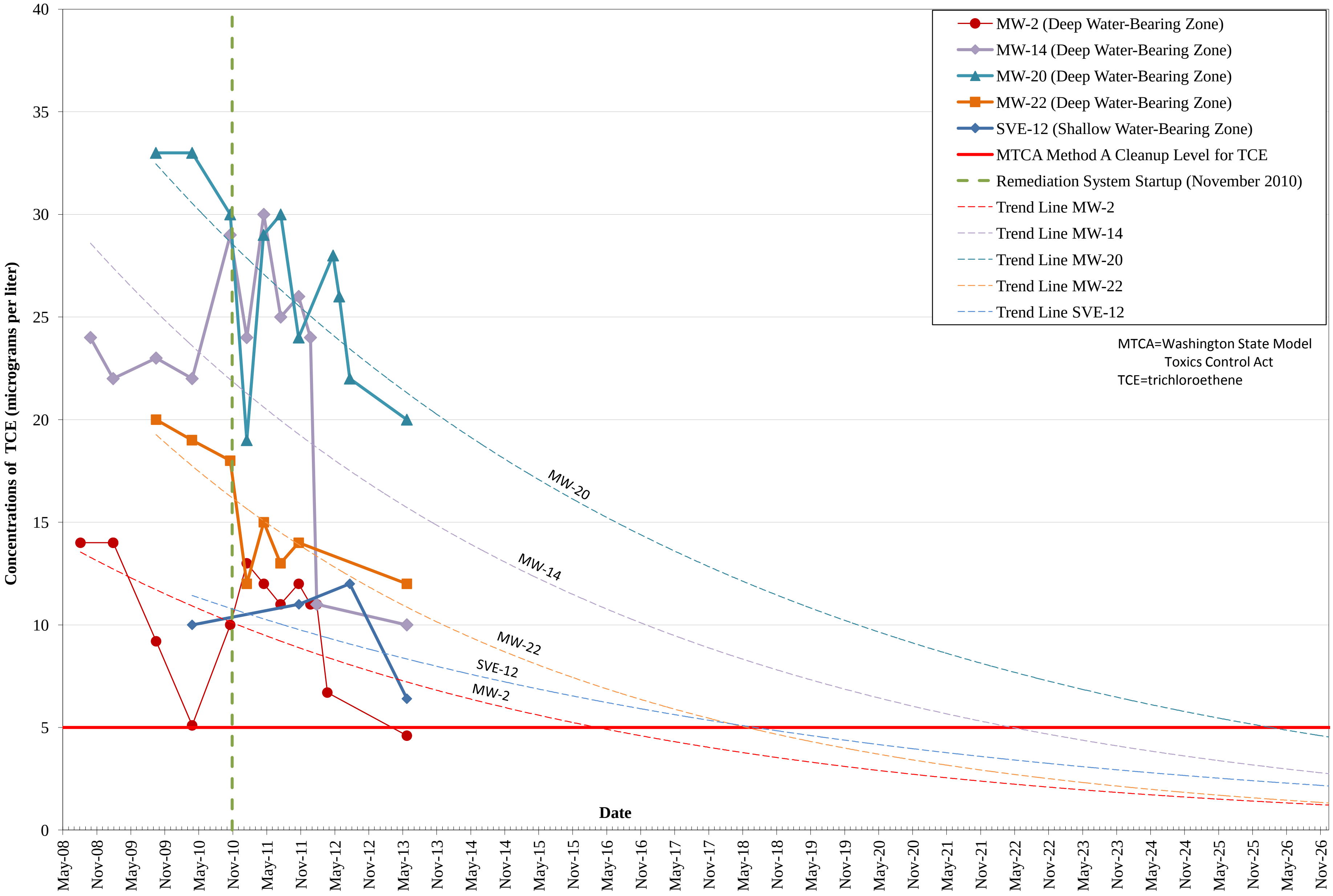
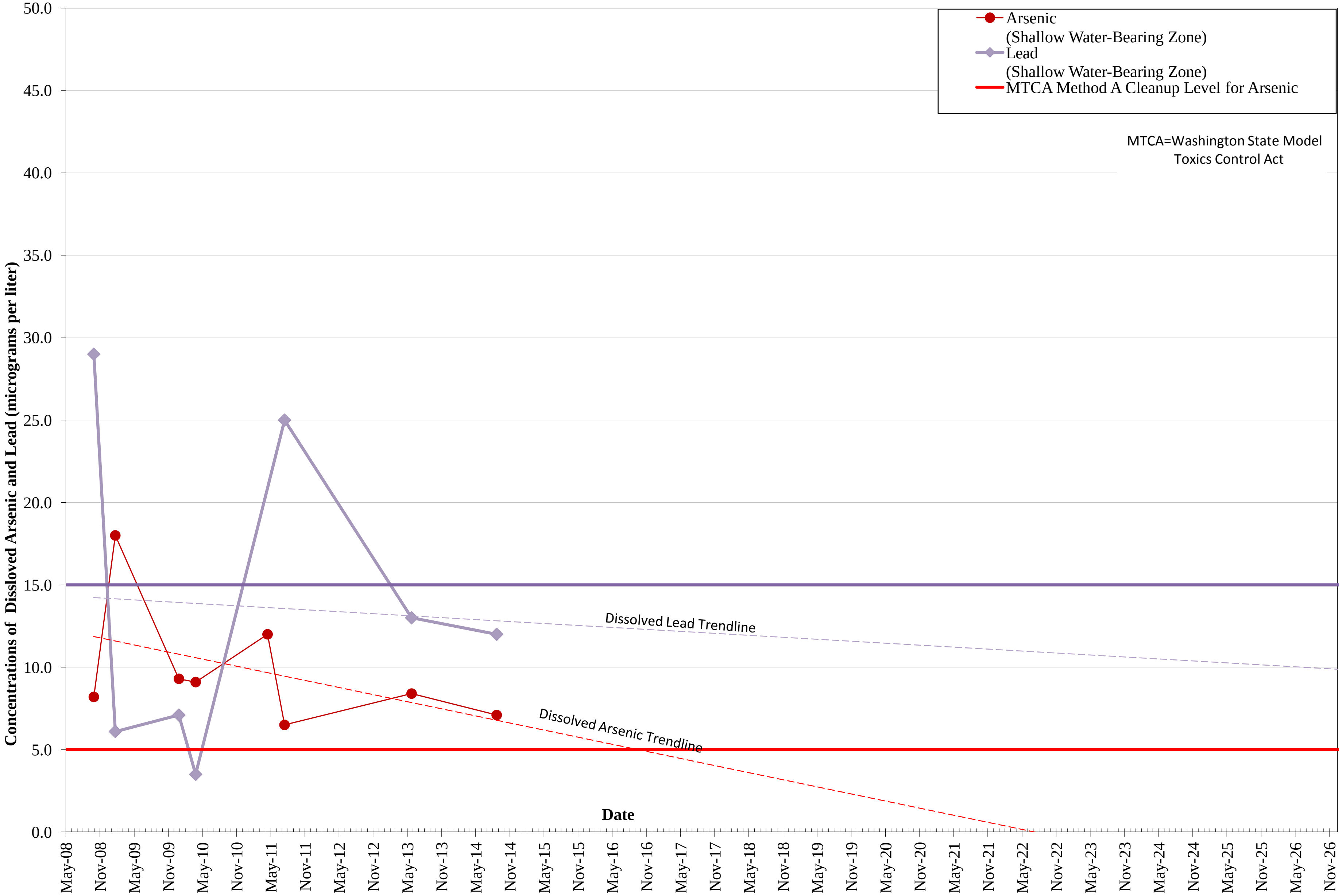
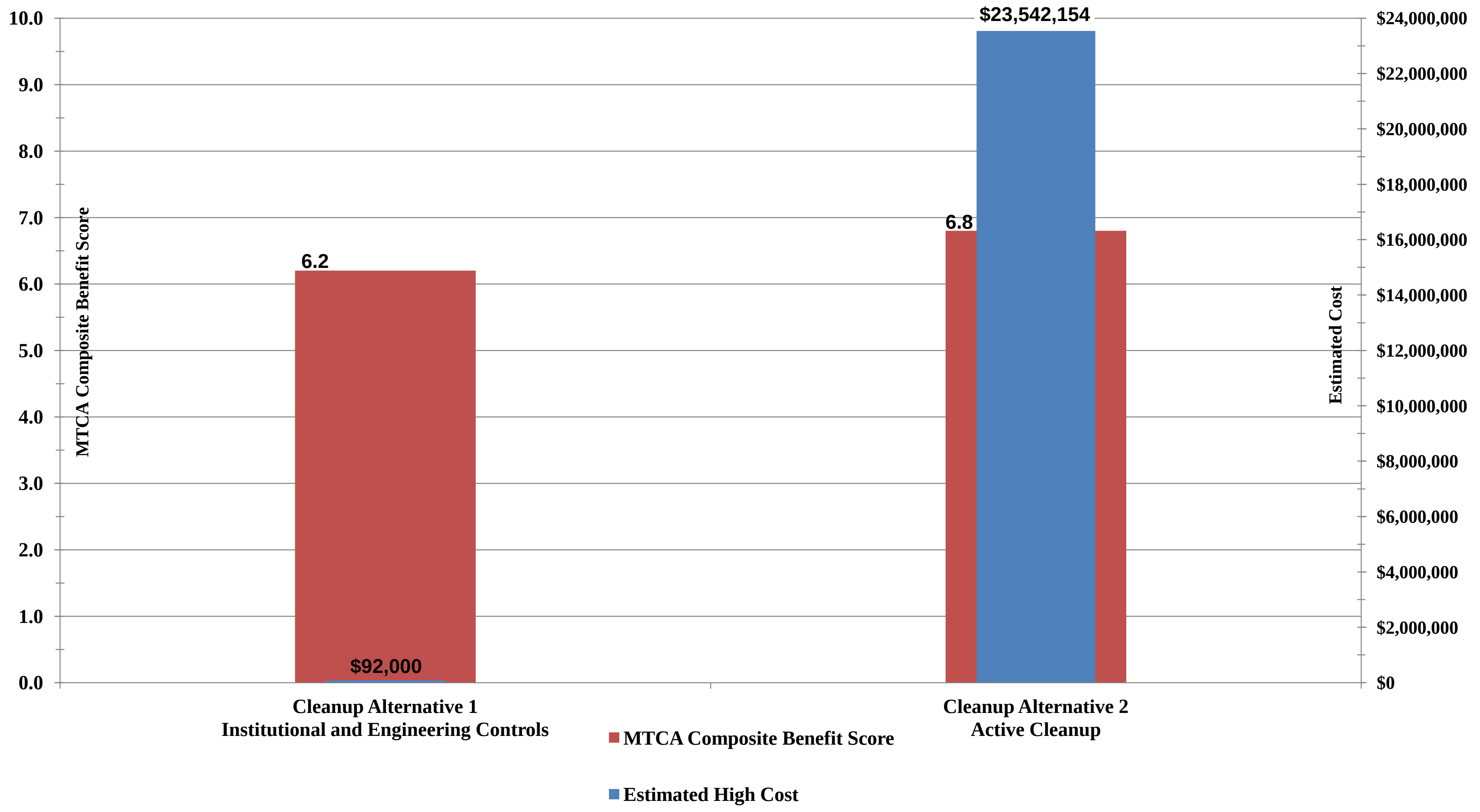


Chart 2
Arsenic and Lead in Groundwater Concentration Trends at Monitoring Well MW-12
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002



MTCA=Washington State Model Toxics Control Act

Chart 3
Disproportionate Cost Analysis Results
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002



APPENDIX A
BORING AND MONITORING WELL CONSTRUCTION LOGS

FOCUSED FEASIBILITY STUDY/
DISPROPORTIONATE COST ANALYSIS REPORT
Lakeview Facility
2800 104th Street Court South
Lakewood, Washington

Farallon PN: 188-002

USCS Classification and Graphic Legend

Major Divisions			USCS Graphic Symbol	USCS Letter Symbol	Lithologic Description
Coarse-Grained Soil (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)	🟩	GW	Well graded GRAVEL, well graded GRAVEL with sand
			🟩	GP	Poorly graded GRAVEL, GRAVEL with sand
		GRAVEL WITH FINES (Appreciable amount of fines)	🟩	GP-GM	Poorly graded GRAVEL - GRAVEL with sand and silt
			🟩	GM	Silty GRAVEL
			🟩	GC	Clayey GRAVEL
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)	🟦	SW	Well graded SAND
			🟦	SP	Poorly graded SAND
		SAND WITH FINES (Appreciable amount of fines)	🟦	SP-SM	Poorly graded SAND - silty SAND
			🟦	SM	Silty SAND
			🟦	SC	Clayey SAND
			🟦	SM-ML	SILT - Silty SAND
Fine-Grained Soil (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)		🟨	ML	SILT
			🟧	CL	CLAY
			🟨	OL	Organic SILT
	SILT AND CLAY (Liquid limit greater than 50)		🟨	MH	Inorganic SILT
			🟧	CH	Inorganic CLAY
			🟧	OH	Organic CLAY
		Highly Organic Soil	⬛	PT	Peat
OTHER MATERIALS	PAVEMENT		▨	AC	Asphalt concrete
			▤	CO	Concrete
	OTHER		▨	RK	Bedrock
			🟫	WD	Wood Debris
			⬜	DB	Debris (Miscellaneous)
			▨	PC	Portland cement

Legend

☐ Sample Interval

☐ G Grab Sample Interval

▼ Water level at time of drilling

▽ Water level at time of sampling

▯ Blank Casing

▤ Screened Casing

▨ Cement Grout

▥ Bentonite

🟨 Sand Pack

▩ Well Cap

——— Solid line indicates sharp contact between units well defined.

- - - - - - - Dashed line indicates gradational contact between units.

feet bgs = feet below ground surface

NE = Not Encountered

NA = Not Applicable

PID = Photoionization Detector

PN = Project Number

*ppm = parts per million total organic vapors in isobutylene equivalents using a 10.6 electron volt lamp

USCS = Unified Soil Classification System

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Issaquah, Washington 98027

Log of Boring: MW-9B

Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

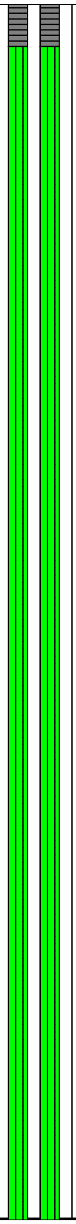
Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 01/22/09 1345
Date/Time Completed: 01/23/09 1115
Equipment: Sonic
Drilling Company: Boart Longyear
Drilling Foreman: Ken Phillips
Drilling Method: Sonic

Sampler Type: 4" Steel
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 27', 60'
Total Boring Depth (ft bgs): 122
Total Well Depth (ft bgs): 119

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0 5		Silty SAND (60% sand, 40% silt), fine to medium sand, brown, moist, no odor, roots, wood fragments.	SM		100 100		0.1			Concrete
10		SILT (90% silt, 10% sand), fine sand, gray-brown, moist, no odor.	ML				0.1	MW9B-012209-9		
15		Silty SAND with gravel (60% sand, 25% silt, 15% gravel), fine to medium sand, fine to coarse gravel, gray-brown, moist, no odor, brick fragments.	SM		100 100		0.2			Casing
20 25		SILT with gravel (70% silt, 20% gravel, 10% sand), fine sand, fine gravel, gray, moist, no odor.	ML		100		0.3	MW9B-012209-19		▽
30		Poorly-graded GRAVEL with sand (80% gravel, 15% sand, 5% silt), fine to coarse gravel, fine to coarse sand, gray-brown, wet, no odor.	GP		100		0.4	MW9B-012209-27		
35 40		Silty GRAVEL (60% gravel, 40% silt), fine to coarse gravel, gray, moist, no odor.	GM		100 100		1.2 1.1 0.5	MW9B-012209-30-GW MW9B-012209-31	X	Bentonite
45		SILT (90% silt, 10% gravel), fine gravel, gray, moist, no odor.	ML		100 100		0.0 0.1	MW9B-012209-42		Casing
50 55		Silty GRAVEL (60% gravel, 40% silt), fine to coarse gravel, gray, moist, no odor.	GM		100		0.0 0.1	MW9B-012209-50		



Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 109-119

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 301.55
Top of Casing Elevation (ft): 301.23
Boring Abandonment: Sand pack
Surveyed Location: **X:** 1150033.94 **Y:** 674137.48

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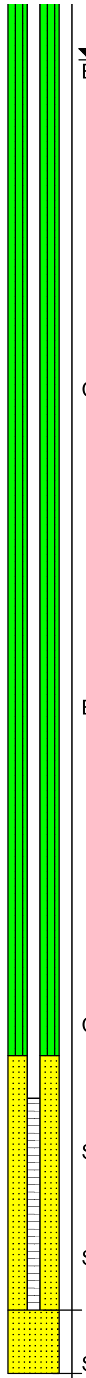
Log of Boring:MW-9B

Page 2 of 2

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Well Construction Details
			100					
60	Poorly-graded GRAVEL with sand (80% gravel, 15% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, wet, no odor. Several 1- to 2-inch lenses starting at 79 feet of poorly-graded SAND (100% sand), fine to medium, brown, wet, no odor.	GP			0.0	MW9B-012209-60		Bentonite
			100					
65					0.0			
			100					
70					0.0	MW9B-012209-70-GW	X	
			100					
75					0.0			Casing
			100					
80					0.0			
			100					
85					0.1			
			100					
90					0.4			Bentonite
			100					
95					0.8			
			100					
100					0.8			
			100					
105					1.0			Casing
			100					
110					1.0			Sand pack
			100					
115					0.9	MW9B-021209	X	Screen
			100			MW9B-012309-119		
120	Silty GRAVEL (60% gravel, 40% silt), fine to coarse gravel, gray, moist, no odor.	GM			0.8	MW9B-012309-119-GW		
			100		0.2			Sand pack
125						MW-9B-012309-122		



Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 109-119

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 301.55
Top of Casing Elevation (ft): 301.23
Boring Abandonment: Sand pack
Surveyed Location: **X:** 1150033.94 **Y:** 674137.48

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Issaquah, Washington 98027

Log of Boring: MW-10B

Page 1 of 2

Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 01/29/09 1150
Date/Time Completed: 01/30/09 1200
Equipment: Sonic
Drilling Company: Boart Longyear
Drilling Foreman: Ken Phillips
Drilling Method: Sonic

Sampler Type: 4" Steel
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 28, 71
Total Boring Depth (ft bgs): 130
Total Well Depth (ft bgs): 127

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		No recovery								Concrete
					0					
5										
		Silty GRAVEL with sand (60% gravel, 25% sand, 15% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor. At 18 feet one 2-inch thick lens of SILT (60% silt, 40% sand), fine sand, gray, moist, no odor.	GM		50					
10							1.1			
					100					
15							0.7			Casing
					100		0.7	MW10B-012909-18		
20							1.4			
					100					
25							1.0			
										▽
		Poorly-graded SAND with gravel (60% sand, 35% gravel, 5% silt), fine to coarse sand, fine to coarse gravel, brown-black, wet, no odor.	SP		100		0.7	MW10B-012909-28		
30							0.9			Bentonite
					100					
35							0.9	MW10B-012909-34		
					100		0.7			
40							0.4			
					100					
45		Silty GRAVEL with sand (60% gravel, silt 25% sand 15%), fine to coarse gravel, fine to coarse sand, gray-brown, moist to 71 feet then wet, no odor.	GM				0.5 0.6	MW10B-012909-44		Casing
					100					
50							0.5			
					100					
55							0.5			
					100					
60							0.3			Bentonite

Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 117-127

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 311.27
Top of Casing Elevation (ft): 310.91
Boring Abandonment: Bentonite
Surveyed Location: **X:** 1149952.42 **Y:** 673370.49

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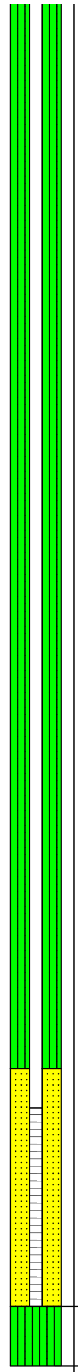
Log of Boring: MW-10B

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Well Construction Details
62			100				
65				0.4			
67			100				
70				0.2			▼
72	Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, gray, wet, no odor. At 97 feet one 2-inch lens of poorly-graded SAND (100% sand), fine to medium sand, brown, wet, no odor.	GP	100		MW10B-012909-72		
75				0.1			Casing
77			100				
80				0.2	MW10B-012909-80		
82			100				
85				0.1			
87			100				
90				0.1			Bentonite
92			100				
95				0.0			
97			100				
100	Poorly-graded GRAVEL with sand (80% gravel, 15% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, wet, no odor.	GP		0.1			
102			100				
105				0.2			Casing
107			100				
110				0.6			
112			100				
115				0.5			
117			100				
120				0.2			Screen
122			100		MW10B-020409	X	
125				0.1	MW10B-013009-127		Sand pack
127	Silty GRAVEL (60% gravel, 35% silt, 5% sand), fine to coarse gravel, fine sand, gray, moist, no odor.	GM	100	0.2			
129							Bentonite
130				0.1	MW10B-013009-130		
135							



Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 117-127

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 311.27
Top of Casing Elevation (ft): 310.91
Boring Abandonment: Bentonite
Surveyed Location: **X:** 1149952.42 **Y:** 673370.49

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Log of Boring: MW-11B

Page 1 of 1

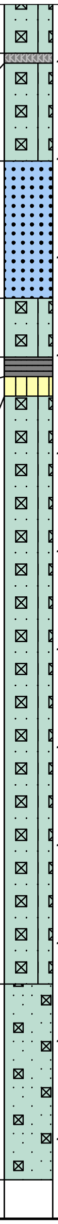
Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 01/28/09 1500
Date/Time Completed: 01/29/09 0915
Equipment: Sonic
Drilling Company: Boart Longyear
Drilling Foreman: Ken Phillips
Drilling Method: Sonic

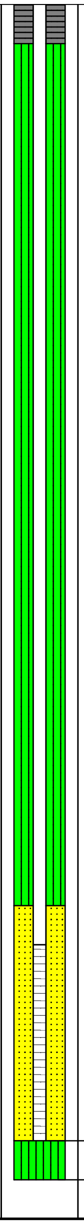
Sampler Type: 4" Steel
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 7.5, 20
Total Boring Depth (ft bgs): 60
Total Well Depth (ft bgs): 58



Lithologic Description	USCS
Silty GRAVEL with sand (60% gravel, 25% silt, 15% sand), fine to coarse gravel, fine to coarse sand, brown, moist, slight petroleum-like odor at 2.5 feet, brick fragments.	GM
Tar & asphalt	
Silty GRAVEL with sand (60% gravel, 25% silt, 15% sand), fine to coarse gravel, fine to coarse sand, brown-black, moist to 7.5 then wet, petroleum-like odor, tar and asphalt mixed in with soil.	GM
Poorly-graded SAND with gravel (75% sand, 20% gravel, 5% silt), gray-brown, wet, no odor, wood fragments.	SP
Silty GRAVEL with sand (60% gravel, 25% silt, 15% sand), fine to coarse gravel, fine to coarse sand, black, moist to wet, faint petroleum-like odor, wood fragments, tar.	GM
Large rock fragment	
Sandy SILT (60% silt, 40% sand), fine sand, gray, moist, no odor.	ML
Silty GRAVEL with sand (60% gravel, 25% sand, 15% silt), fine to coarse gravel, fine to coarse sand, brown, wet, no odor. From 35 to 50 feet few 1- to 2-inch lenses of poorly-graded SAND (100% sand), fine to coarse, gray, wet, no odor.	GM
Poorly-graded GRAVEL with sand (75% gravel, 20% sand, 5% silt), fine to coarse gravel, fine to coarse sand, gray-brown, wet, no odor.	GP

% Recovery	PID (ppm*)	Sample ID	Sample Analyzed
	5.2		
100	61.6	MW11B-012809-3	X
	7.0		
100	3.4	MW11B-012809-8	X
	2.4		
100	5.6		
	5.7	MW11B-012809-15	
	2.1		
100	8.2		
	2.4	MW11B-012809-20	
	0.7		
100	1.0		
	0.6		
	0.7		
100			
	0.5		
100			
	0.9		
100			
	0.4		
100			
	0.4		
100			
	0.7	MW11B-012909-50	
100		MW11B-020609	X
	0.3		
100			
	0.3	MW11B-012909-60	

Depth (feet bgs.): 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60



Boring/Well Construction Details
Concrete
Casing
▽
▼ Bentonite
Casing
Bentonite
Screen
Sand pack
Bentonite

Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 48-58

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 287.53
Top of Casing Elevation (ft): 287.31
Boring Abandonment: Bentonite
Surveyed Location: **X:** 1149316.19 **Y:** 673131.6

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Issaquah, Washington 98027

Log of Boring: MW12 / SS9

Page 1 of 1

Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

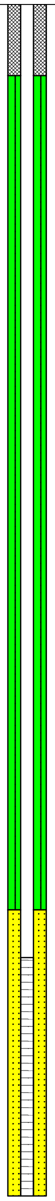
Farallon PN: 188-001

Logged By: John Schmitt

Date/Time Started: 10/02/08 0730
Date/Time Completed: 10/02/08 1225
Equipment: Sonic LAR
Drilling Company: Boart-Longyear
Drilling Foreman: Jeremy Thompson
Drilling Method: Sonic

Sampler Type: Sonic core bag
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 42
Total Boring Depth (ft bgs): 50
Total Well Depth (ft bgs): 50

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		Poorly graded sand with silt and gravel (sand 50%, gravel 40%, silt 10%), fine to medium sand, fine to coarse gravel, dark brown, moist, no odor.	SP-SM							Concrete
5		Silty sand with gravel (sand 60%, gravel 20%, silt 20%), fine to medium sand, fine to coarse gravel, dark brown, moist, no odor.	SM		100					2" diam PVC casing
10		Poorly graded gravel with silt and sand (gravel 60%, sand 30%, silt 10%), fine to coarse gravel, fine to coarse sand, brown, moist, no odor.	GP-GM					SS9-10-100208 @ 0825		Bentonite seal
15		Poorly graded gravel with silt and sand (gravel 60%, sand 30%, silt 10%), fine to coarse gravel, fine to coarse sand, grey, moist, no odor.	GP-GM		100					
		Poorly graded gravel with silt and sand (gravel 60%, sand 30%, silt 10%), fine to coarse gravel, fine to coarse sand, brown, moist, no odor.	GP-GM SP					SS9-19-100208 @ 0850		
20 25 30 35		Poorly graded sand with gravel (sand 70%, gravel 30%), fine to medium sand, fine to coarse gravel, grey-brown, moist, no odor, pieces of brick and white chalky substance present.	SP		80 80			SS9-28-100208 @ 0915		
40		Poorly graded gravel with sand (gravel 70%, sand 30%, silt 5%), fine to coarse gravel, moist, no odor.	GP					SS9-40-100208 @ 0955		
45		Poorly graded gravel with sand (gravel 70%, sand 30%, silt 5%), fine to coarse gravel, wet, no odor.	GP		70					10/20 sand pack 0.010 slot PVC well screen
50		Silty gravel (gravel 70%, silt 20%, sand 10%), fine to coarse gravel, wet, no odor.	GM							



Well Construction Information

Monument Type: Flush
Casing Diameter (inches): 2
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 40-50

Filter Pack: 10/20 sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 313.88
Top of Casing Elevation (ft): 313.32
Boring Abandonment: NA
Surveyed Location: X: Y:

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Issaquah, Washington 98027

Log of Boring: MW-12B

Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

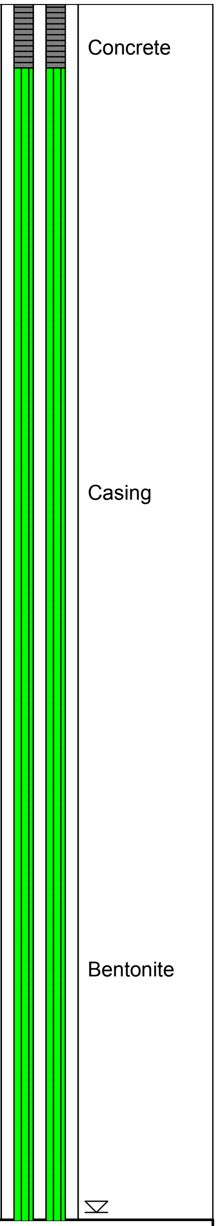
Logged By: D. Clement

Date/Time Started: 01/21/09 0920
Date/Time Completed: 01/22/09 0900
Equipment: Sonic
Drilling Company: Boart Longyear
Drilling Foreman: Ken Phillips
Drilling Method: Sonic

Sampler Type: 4" Steel
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 38, 75
Total Boring Depth (ft bgs): 125
Total Well Depth (ft bgs): 121

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed
0 5	Poorly graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, dark brown, moist, no odor, brick fragments, organics.	GP	100 100		0.5 0.2		
10	Poorly graded GRAVEL with sand (80% gravel, 15% sand, 5% silt), fine to coarse gravel, fine to coarse sand, light brown, moist, no odor.	GP	100				
15	Silty GRAVEL with sand (60% gravel, 25% silt, 15% sand), fine to coarse gravel, fine to coarse sand, gray, moist, no odor, brick fragments.	GM	100		0.0 0.3		
20	Poorly-graded SAND with gravel (60% sand, 35% gravel, 5% silt), fine to coarse sand, fine gravel, gray-brown, moist, no odor, brick fragments, white chalky substance at 22.5 feet.	SP	100				
25 30	Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, brick fragments, wood pieces.	GP	100		0.2 1.8		
	Poorly-graded SAND with gravel (60% sand, 35% gravel, 5% silt), fine to coarse sand, fine to coarse gravel, brown, moist, strong organic odor, wood fragments.	SP	100		6.2	MW12B-012109-33	X
35	Poorly-graded SAND with gravel (60% sand, 35% gravel, 5% silt), fine to coarse sand, fine to coarse gravel, brown, moist, strong organic odor, wood, concrete, and steel mesh fragments.	SP	100		10.2		

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 111-121

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 313.74
Top of Casing Elevation (ft): 313.53
Boring Abandonment: Sand pack
Surveyed Location: **X:** 1150061.62 **Y:** 674541.35

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Well Construction Details
40		Poorly-graded GRAVEL with sand (75% gravel, 20% sand, 5% silt), fine to coarse gravel, fine to coarse sand, gray, wet, organic odor, concrete fragments and concrete steel mesh fragments, steel shard at 40 feet.	GP		100		3.0			
45		Silty GRAVEL with sand (60% gravel, 25% sand, 15% silt), fine to coarse gravel, fine to medium sand, gray, moist, no odor, brick fragments.	GM							Casing
		Sandy SILT with gravel (55% silt, 25% sand, 20% gravel), fine to coarse sand, fine gravel, gray, moist, no odor.	ML		100					
50		Silty GRAVEL (75% gravel, 15% silt, 5% sand), fine to coarse gravel, fine to coarse sand, gray, moist, no odor.	GM				1.0	MW12B-012109-49		
		Poorly-graded GRAVEL with sand (75% gravel, 20% sand, 5% silt), fine to coarse gravel, fine to coarse sand, gray, moist, no odor.	GP		100		1.1	MW12B-012109-52		
55		Gravelly SILT (60% silt, 35% gravel, 5% sand), fine to coarse gravel, fine sand, gray-brown, moist, no odor.	ML		100		0.5	MW12B-012109-55		
60					100		0.4			Bentonite
65					100		0.6			
70					100		0.5			
							0.6	MW12B-012109-74		
75		Poorly-graded GRAVEL with sand (80% gravel, 15% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, wet, no odor.	GP		100					▼ Casing
80					100		0.6			

Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 111-121

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 313.74
Top of Casing Elevation (ft): 313.53
Boring Abandonment: Sand pack
Surveyed Location: **X:** 1150061.62 **Y:** 674541.35

Log of Boring: MW-12B

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Well Construction Details
85					0.5			
			100					
					0.4	MW12B-012109-89-GW	X	
90								Bentonite
			100					
95					0.4			
			100					
100	Several lenses of poorly graded SAND (90% sand, 5% gravel, 5% silt), grey, wet, no odor. One lens at 101 feet of sandy SILT (60% silt, 40% sand), fine sand, grey, wet, no odor.				0.5			
			100					
105					0.9			Casing
			100					
110					1.1			
			100					Sand pack
115					20.2			
						MW12B-021209	X	
			100					Screen
120					23.0			
	Silty GRAVEL wih sand (55% gravel, 30% silt, 15% sand), fine gravel, fine to coarse sand, gray, moist, no odor.	GM			0.1	MW12B-012209-121	X	
			100					Sand pack
125					0.1	MW12B-012209-125		

Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 111-121

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 313.74
Top of Casing Elevation (ft): 313.53
Boring Abandonment: Sand pack
Surveyed Location: **X:** 1150061.62 **Y:** 674541.35

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Log of Boring: MW13 / SS6

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

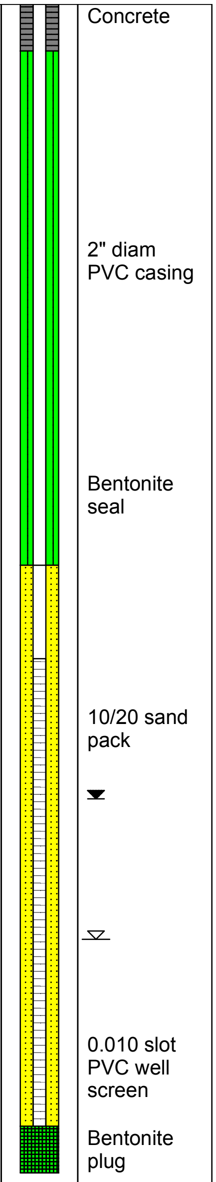
Logged By: Jon Peterson

Date/Time Started: 10/07/08 0930
Date/Time Completed: 10/07/08 1200
Equipment: Sonic LAR
Drilling Company: Boart-Longyear
Drilling Foreman: Jeremy Thompson
Drilling Method: Sonic

Sampler Type: Sonic core bag
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 17, 20
Total Boring Depth (ft bgs): 25
Total Well Depth (ft bgs): 24

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed
0		Poorly-graded sand with gravel (Sand 60%, gravel 40%), fine sand, coarse gravel, tan, loose, dry, no odor	SP						
		Gravelly silt with sand (Silt 50%, gravel 30%, sand 20%), coarse gravel, fine sand, tan, soft, moist, oily- odor in gray-stained clumps of sand, no sheen 2.5-5' bgs: moist, no odor, no sheen	ML		90		1.9	SS6-2.5-100708 @ 0945	
5									
					100				
10									
					90		0.0	SS6-11-100708 @ 1000	
15									
		Poorly graded gravel with sand (Gravel 60%, sand 40%), coarse gravel, fine sand, gray, loose, wet, solvent-like odor	GP		90		2.5	SS6-17-100708 @ 1020	
		Gravelly silt with sand (Silt 50%, gravel 30%, sand 20%), coarse gravel, fine sand, tan, soft, moist, no odor	ML						
20		Poorly graded gravel with sand (Gravel 60%, sand 40%), coarse gravel, fine sand, gray, loose, wet, no odor	GP						
		Gravelly silt with sand (Silt 50%, gravel 30%, sand 20%), coarse gravel, fine sand, tan, soft, moist, no odor	ML						
		Gravelly silt (Silt 60%, gravel 40%), coarse, gray, stiff, moist, no odor	ML						
25		Gravelly silt with sand (Silt 50%, gravel 30%, sand 20%), coarse gravel, fine sand, gray, medium stiff, wet, no odor	ML						

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush
Casing Diameter (inches): 2
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 14-24

Filter Pack: 10/20 sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 284.97
Top of Casing Elevation (ft): 284.73
Boring Abandonment: NA
Surveyed Location: X: Y:

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Log of Boring: MW14 / SS4

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

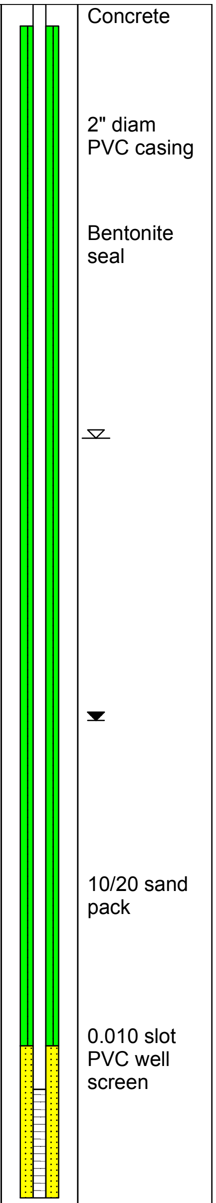
Farallon PN: 188-001

Logged By: John Schmitt

Date/Time Started:	10/03/08 1020	**Sampler Type:**	Sonic core bag
Date/Time Completed:	10/03/08 1300	**Drive Hammer (lbs.):**	NA
Equipment:	Sonic LAR	**Depth of Water ATD (ft bgs):**	20,33
Drilling Company:	Boart-Longyear	**Total Boring Depth (ft bgs):**	55
Drilling Foreman:	Jeremy Thompson	**Total Well Depth (ft bgs):**	
Drilling Method:	Sonic		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed
0		Asphalt	GP						
		Poorly graded gravel with sand (gravel 60%, sand 40%, trace silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor.	GP		90 90				
15		Poorly graded gravel with silt and sand (gravel 60%, sand 30%, silt 10%), fine to coarse gravel, fine to coarse sand, brown, moist, no odor.	GP-GM						
20		Poorly graded gravel with sand (gravel 70%, sand 25%, silt 5%), fine to coarse gravel, moist, no odor.	GP						
		Poorly graded gravel with silt and sand (gravel 70%, sand 20%, silt 10%), fine to coarse gravel, moist, no odor.	GP-GM						
		Poorly graded sand with gravel (sand 60%, gravel 40%, trace silt), medium to coarse sand, fine to coarse gravel, wet.	SP						
		Poorly graded sand with silt and gravel (sand 60%, gravel 30%, silt 10%), medium to coarse sand, fine to coarse gravel, wet.	SP-SM						
40		Poorly graded gravel with sand (gravel 70%, sand 30%, trace silt), fine to coarse gravel, fine to coarse sand, brown, wet, no odor.	GP						
45		Poorly graded sand with gravel (sand 50%, gravel 50%), wet, no odor.	SP		60				
50		Poorly graded gravel with sand (trace silt), fine to coarse gravel, medium to coarse sand, brown, wet, no odor.	GP						
55									

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush
Casing Diameter (inches): 2
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 50-55

Filter Pack: 10/20 sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 280.28
Top of Casing Elevation (ft): 279.79
Boring Abandonment: NA
Surveyed Location: X: Y:

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Log of Boring: MW-14C

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

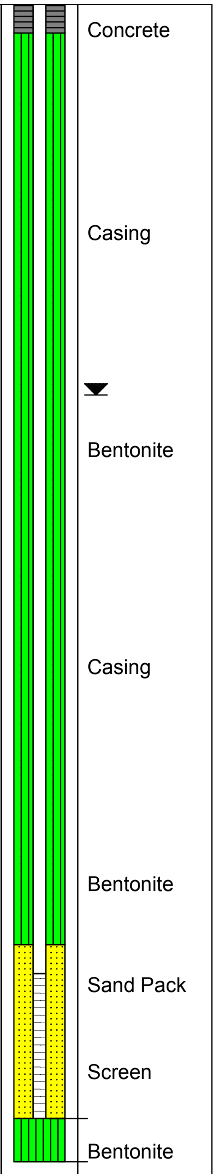
Logged By: D. Clement

Date/Time Started: 01/26/09 1340
Date/Time Completed: 01/26/09 1710
Equipment: Sonic
Drilling Company: Boart Longyear
Drilling Foreman: Ken Phillips
Drilling Method: Sonic

Sampler Type: 4" Steel
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 27
Total Boring Depth (ft bgs): 80
Total Well Depth (ft bgs): 77

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed
0 5		Poorly-graded GRAVEL with sand (80% gravel, 15% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor.	GP		100				
10		Poorly-graded SAND (90% sand, 5% gravel, 5% silt), fine to coarse sand, fine gravel, brown, moist, no odor.	SP		100		0.3 0.2	MW14C-012609-6 MW14C-012609-8	
15 20 25		Poorly-graded GRAVEL with sand (80% gravel, 15% sand, 5% silt), fine to coarse grave, fine to coarse sand, brown, moist to 15 feet, wet at 15 to 21.5 feet, moist 21.5 to 27 feet, no odor. Wet section may be due to drillers using water to clean sampler threads prior to sample removal.	GP		100 100 100		0.2 0.3 0.1 0.3		
30		Silty SAND with gravel (60% sand, 25% gravel, 15% silt), fine to coarse sand, fine to coarse gravel, brown, wet, no odor.	SM		100		0.1 0.1	MW14C-012609-27 MW14C-012609-30	
35 40		Poorly-graded GRAVEL with sand (65% gravel, 30% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, wet, no odor.	GP		100 100 100		0.2 0.7		
45 50 55 60 65		Poorly-graded GRAVEL with sand (65% gravel, 30% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, wet, no odor, few 1- to 2-inch lenses of poorly graded SAND (90% sand, 5% gravel, 5% silt), fine to coarse sand, fine gravel, brown wet, no odor.	GP		100 100 100 100 100		1.1 2.3 1.1 1.4 2.2		
70 75		Silty SAND with gravel (60% sand, 25% gravel, 15% silt), fine to coarse sand, fine to coarse gravel, gray, wet, no odor.	SM		100		0.3	MW14C-012609-69 MW14C-020509	 X
		Sandy SILT (60% silt, 40% sand), fine sand, gray, moist, no odor.	ML		100		0.1	MW14C-012609-77	
80							0.1	MW14C-012609-80	

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 67-77

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 280.35
Top of Casing Elevation (ft): 279.99
Boring Abandonment: Sand pack
Surveyed Location: **X:** 1149449.26 **Y:** 673688.28

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Log of Boring: MW15 / SS2

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

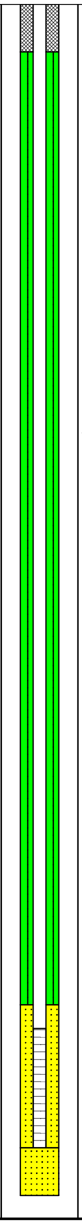
Farallon PN: 188-001

Logged By: John Schmitt

Date/Time Started: 10/02/08 1345
Date/Time Completed: 10/03/08 1000
Equipment: Sonic LAR
Drilling Company: Boart-Longyear
Drilling Foreman: Jeremy Thompson
Drilling Method: Sonic

Sampler Type: Sonic core bag
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 18
Total Boring Depth (ft bgs): 50
Total Well Depth (ft bgs): 48

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		Asphalt								Concrete
		Poorly graded gravel with sand (gravel 80%, sand 20%, trace silt), fine to coarse gravel, fine to coarse sand, dark black to brown, moist, no odor.	GP		50					
5		Silty gravel with sand (gravel 60%, sand 20%, silt 20%), fine to coarse gravel, fine to medium sand, olive brown, moist to 18 feet then wet, no odor.	GM					SS2-5-100208 @ 1405		2" diam PVC casing
					100					
10								SS2-10-100208 @ 1415		Bentonite seal
					100					
15								SS2-16-100208 @1445		
					80					▽
20		Poorly graded gravel with sand (gravel 80%, sand 15%, silt 5%), fine to coarse gravel, fine to coarse sand, olive brown, wet, no odor.	GP							
25					100					
30		Poorly graded gravel with sand (gravel 70%, sand 25% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, wet, no odor.	GP							
35					90					
40		Poorly graded gravel with sand (gravel 80%, sand 15%, silt 5%), fine to coarse gravel, fine to coarse sand, brown, wet, no odor.	GP							10/20 sand pack
45					100					0.010 slot PVC well screen
50										



Well Construction Information

Monument Type: Flush
Casing Diameter (inches): 2
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 43-48

Filter Pack: 10/20 sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 278.66
Top of Casing Elevation (ft): 278.37
Boring Abandonment: NA
Surveyed Location: X: Y:

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Log of Boring: MW16

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

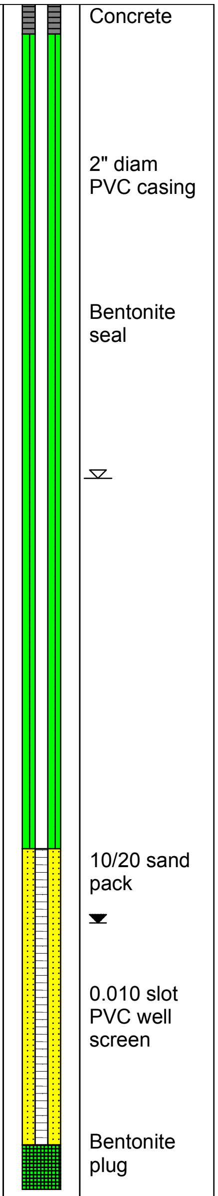
Logged By: Jon Peterson

Date/Time Started: 10/06/08 1340
Date/Time Completed: 10/06/08 1700
Equipment: Sonic LAR
Drilling Company: Boart-Longyear
Drilling Foreman: Jeremy Thompson
Drilling Method: Sonic

Sampler Type: Sonic core bag
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 16, 31
Total Boring Depth (ft bgs): 40
Total Well Depth (ft bgs): 38.5

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed
0		Well-graded sand with gravel (Sand 60%, gravel 40%), fine to coarse sand, coarse gravel, tan, loose, dry, no odor	SW		100				
		Well-graded sand (100%), fine to coarse, brown, loose, moist, no odor	SW				0.0	MW16-3-100608 @ 1355	
5		Gravelly silt (Silt 60%, gravel 40%), coarse gravel, brown, stiff, moist, no odor	ML						
		Well-graded sand (100%), fine to coarse, brown, loose, moist, no odor	SW						
10		Gravelly silt (Silt 60%, gravel 40%), coarse gravel, brown, stiff, moist, no odor	ML						
		Well-graded sand with silt and gravel (55% sand, 35% gravel, 10% silt), fine to coarse sand, coarse gravel, tan, loose, dry, no odor	SW-SM		100				
		Well-graded sand (Sand 90%, gravel 10%), fine to coarse sand, coarse gravel, gray, medium dense, moist, no odor	SW						
15		Well-graded sand with silt and gravel (55% sand, 35% gravel, 10% silt) fine to coarse sand, coarse gravel, tan, loose, moist, no odor	SW-SM				0.0	MW16-15-100608 @ 1410	
		Poorly-graded gravel (Gravel 100%), fine, gray, loose, wet, no odor	GP						
20		Well-graded sand (Sand 90%, gravel 10%), fine to coarse sand, coarse gravel, gray, medium dense, moist, no odor	SW		100				
25		Well-graded sand with gravel (Sand 75%, gravel 25%), fine to coarse sand, coarse gravel, tan, dense, moist, no odor	SW				0.0	MW16-27-100608 @1600	
30		Gravelly silt (Silt 60%, gravel 30%, sand 10%), coarse gravel, fine sand, gray, medium-stiff, moist to wet, no odor 31' bgs: wet	ML						
35		Well-graded sand with gravel (Sand 75%, gravel 25%), fine to coarse sand, coarse gravel, gray, loose, wet, no odor	SW		90				
40		Well-graded sand with gravel (Sand 75%, gravel 25%), fine to coarse sand, coarse gravel, tan, loose, wet, no odor	SW		90				

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush
Casing Diameter (inches): 2
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 28.5-38.5

Filter Pack: 10/20 sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 278.23
Top of Casing Elevation (ft): 278.00
Boring Abandonment: NA
Surveyed Location: X: Y:

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Log of Boring: MW17

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: Jon Peterson

Date/Time Started: 09/30/08 1530
Date/Time Completed: 09/30/08 1530
Equipment: Sonic LAR
Drilling Company: Boart-Longyear
Drilling Foreman: Jeremy Thompson
Drilling Method: Sonic

Sampler Type: Sonic core bag
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 16,45
Total Boring Depth (ft bgs): 50
Total Well Depth (ft bgs): 50

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		Asphalt	GP		100					Concrete
		Poorly-graded sand with gravel (Sand 60%, gravel 35%, silt 5%), mostly fine to medium sand, fine gravel, brown, moist, no odor	SP							
5		Poorly-graded gravel with sand (Gravel 60%, sand 39%, silt <1%), fine to medium gravel, fine to mostly-coarse sand, brown, moist, no odor	GP		100		3.7	MW17-5-093008 @ 1600		2" diam PVC casing
		8' bgs: Above unit is interbedded with silty gravel with sand (Gravel 60%, sand 20%, silt 20%), brown, moist, no odor	GM							
10					90		1.8	MW17-10-093008 @ 1610		Bentonite seal
15		Poorly-graded sand (Sand 90%, gravel <5%, silt <5%), fine sand, fine gravel, gray, moist, no odor 16' bgs: saturated	SP		30		1.4	MW17-15-093008 @ 1630		▼
20		Silty gravel with sand (Gravel 60%, silt 20%, sand 20%), fine to coarse gravel, mostly fine to medium sand, brown, wet, no odor 22' bgs: moist, decreasing silt content	GM		100					
25		Poorly-graded gravel with sand (Gravel 60%, sand 35%, silt 5%), fine to coarse gravel, fine to medium sand, gray-brown, moist, no odor 32' bgs: 10% silt now in lithologic unit	GP		100					
30					100					
35		Silty gravel with sand (Gravel 50%, sand 30%, silt 20%), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GM		100					
40					75					10/20 sand pack
45		Poorly-graded gravel with sand (Gravel 80%, sand 15%, silt 5%), fine gravel, medium to coarse sand, brown, wet, no odor	GP		100					▽ 0.010 slot PVC well screen
50										

Well Construction Information

Monument Type: Flush
Casing Diameter (inches): 2
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 40-50

Filter Pack: 10/20 sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 281.96
Top of Casing Elevation (ft): 281.78
Boring Abandonment: NA
Surveyed Location: X: Y:

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Log of Boring: MW-17A

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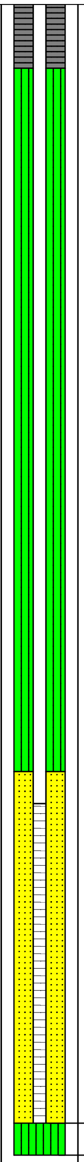
Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started:	01/28/09 0830	**Sampler Type:**	4" Steel
Date/Time Completed:	01/28/09 1220	**Drive Hammer (lbs.):**	NA
Equipment:	Sonic	**Depth of Water ATD (ft bgs):**	20
Drilling Company:	Boart Longyear	**Total Boring Depth (ft bgs):**	36
Drilling Foreman:	Ken Phillips	**Total Well Depth (ft bgs):**	35
Drilling Method:	Sonic		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0 5		Poorly-graded GRAVEL with sand (60% gravel, 40% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor.	GP		100 100		0.5			Concrete
10		Poorly-graded SAND with gravel (75% sand, 20% gravel, 5% silt), fine to coarse sand, fine to coarse gravel, brown, moist, no odor.	SP		100		0.3	MW17A-012809-8		Casing
15		Silty GRAVEL with sand (60% gravel, 20% sand, 20% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor. More moist from 16 to 17 feet, but not saturated; less moist from 17 to 20 feet.	GM		100		0.3	MW17A-012809-15		
20 25		Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, moist to 20 feet then wet 20 to 28 feet, no odor.	GP		100 100		0.3 0.3	MW17A-012809-20 MW17A-012809-30		▼ Bentonite Sand pack
30		Silty GRAVEL with sand (60% gravel, 25% sand, 15% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor.	GM		100		0.5	MW17A-020409	X	Screen
35		Silty GRAVEL with sand (50% gravel, 30% silt, 20% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, very dense.	GM				0.1	MW17A-012809-35		Bentonite



Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 25-35

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 282.23
Top of Casing Elevation (ft): 281.72
Boring Abandonment: Bentonite
Surveyed Location: X: 1149998.98 **Y:** 673780.51

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Log of Boring: MW-18

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

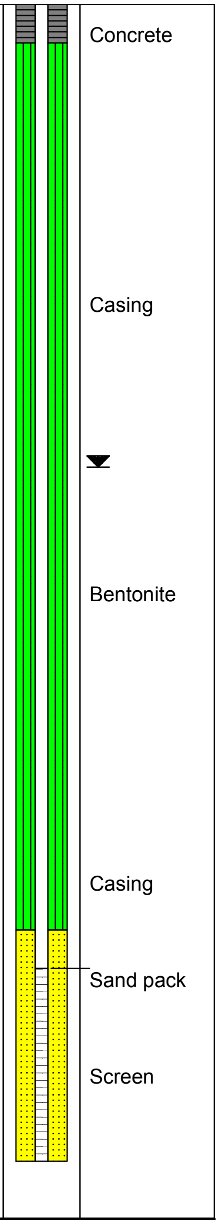
Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started:	01/27/09 1135	**Sampler Type:**	4" Steel
Date/Time Completed:	01/27/09 1500	**Drive Hammer (lbs.):**	NA
Equipment:	Sonic	**Depth of Water ATD (ft bgs):**	24
Drilling Company:	Boart Longyear	**Total Boring Depth (ft bgs):**	60
Drilling Foreman:	Ken Phillips	**Total Well Depth (ft bgs):**	60
Drilling Method:	Sonic		

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed
0	Asphalt, paving debris	AC					
	Silty GRAVEL with sand (60% gravel, 25% sand, 15% silt), fine to coarse gravel, fine to coarse sand, brown , moist, no odor. More moist from 10 to 15 feet but not saturated.	GM	100				
5					0.4		
			100				
10					0.5		
			100				
15	Silty GRAVEL (60% gravel, 35% silt, 5% sand), fine to coarse gravel, fine to coarse sand, gray-brown, moist, no odor.	GM			1.1	MW18-012709-15	
			100				
20					0.4		
			100				
25	Poorly graded GRAVEL with sand (60% gravel, 35% sand, 5% silt) fine to coarse gravel, fine to coarse sand, brown, wet, no odor. From 35 to 51, few 1- to 2-inch lenses of poorly-graded SAND (100% sand), gray, wet, no odor.	GP			0.1	MW18-012709-24	
			100				
30					0.1		
			100				
35					0.3		
			100				
40					0.1		
			100				
45					0.2		
			100				
50	Poorly-graded SAND with gravel (75% sand, 20% gravel, 5% silt), fine to coarse sand, fine to coarse gravel, gray, wet, no odor.	SP			0.5	MW18-012709-51	
			100				
55					0.4	MW18-020509	X
			100				
60					0.3	MW18-012709-60	

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 50-60

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 278.09
Top of Casing Elevation (ft): 277.67
Boring Abandonment: Sand pack
Surveyed Location: **X:** 1149528.63 **Y:** 673785.23

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Log of Boring: MW-19

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

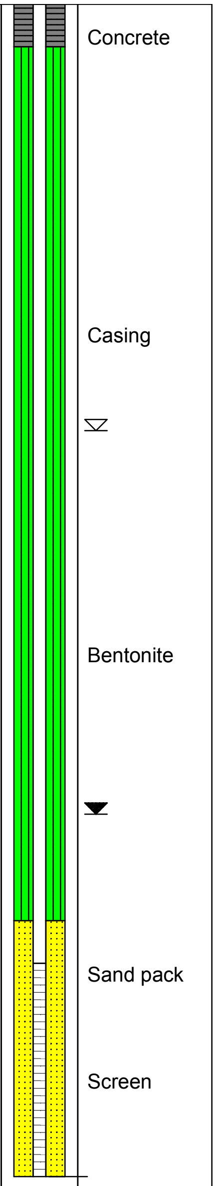
Logged By: D. Clement

Date/Time Started: 01/23/09 1500
Date/Time Completed: 01/26/09 1035
Equipment: Sonic
Drilling Company: Boart Longyear
Drilling Foreman: Ken Phillips
Drilling Method: Sonic

Sampler Type: 4" Steel
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 20, 38
Total Boring Depth (ft bgs): 55
Total Well Depth (ft bgs): 55

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm*)	Sample ID	Sample Analyzed
0		Gravelly SILT with sand (55% silt, 30% gravel, 15% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor.	ML						
					100				
5							0.0	MW19-012309-5	
					100				
10							0.0		
					100				
15							0.0		
					100				
20		Poorly-graded GRAVEL with sand (80% gravel, 15% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, wet, no odor.	GP				0.4	MW19-012609-20	X
					100				
25							0.4		
					100				
30							0.3		
					100				
35		Gravelly SILT with sand (55% silt, 30% gravel, 15% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor.	ML				0.2	MW19-012609-35	
					100				
		Poorly-graded GRAVEL with sand (80% gravel, 15% sand, 5% silt), fine to coarse gravel, fine to coarse sand, gray, wet, no odor, few one-inch lenses of sandy GRAVEL (60% gravel, 40% sand), fine gravel, fine to coarse sand, gray, wet, no odor.	GP				0.1	MW19-012609-38	
40							0.9		
					100				
45							1.7		
					100				
50							1.3	MW19 020509	X
					100				
55							2.1	MW19-012609-55	

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 45-55

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite

Ground Surface Elevation (ft): 284.71
Top of Casing Elevation (ft): 284.46
Boring Abandonment: Sand pack
Surveyed Location: **X:** 1149293.81 **Y:** 673431.78

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Log of Boring: MW-20

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Client: Woodworth & Company, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

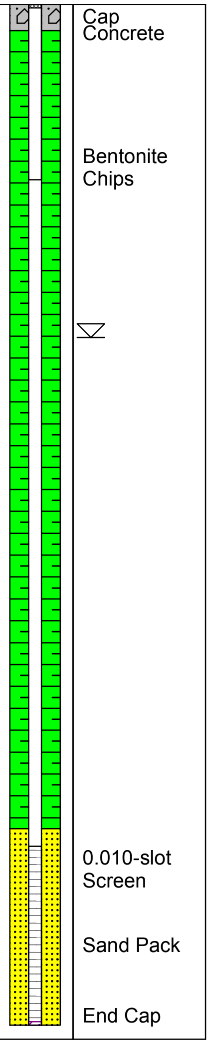
Farallon PN: 188-001

Logged By: Jon Peterson

Date/Time Started:	9/25/09 @ 1200	**Sampler Type:**	Sonic core sampler
Date/Time Completed:	9/25/09 @ 1500	**Drive Hammer (lbs):**	Auto
Equipment:	LAR- Sonic	**Depth of Water (ft bgs):**	19
Drilling Company:	Boart Longyear	**Total Boring Depth (ft bgs):**	58.45
Drilling Foreman:	Jeremy Thompson	**Total Well Depth (ft bgs):**	58.45
Drilling Method:	Sonic		

Depth (feet bgs)	Lithologic Description	USCS	% Recovery	Blow Counts	PID (ppmv)	Sample ID
0	0-0.5' bgs: Asphalt	GP	100	NA		
	0.5-35' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine to coarse gravel, fine to coarse sand, brown to gray, medium dense, dry, no odor	GM				
5			100			
10			100			
	10-11' bgs: rock fragments 11-11.5' bgs: whiteish staining, moist, no odor 11.5-14.5' bgs: dry, no odor				0.0	MW20-092509-11 @ 1230
15			70			
					0.0	MW20-092509-18 @ 1318
20	19-35' bgs: wet, no odor		100		0.0	
25			100			MW20-092509-25-GW @ 1300
30			100			
35	35-53' bgs: Silty gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown to gray, medium dense, wet, faint to no odor	GM	100		0.0	MW20-092509-35-GW @ 1330
40			100			
45			100			
50			100			
	53-56' bgs: Well-graded gravel (90% gravel, 5% silt, 5% sand), fine to coarse gravel, fine to coarse sand, gray, loose, wet, no odor	GW				
55			100			
	56-57' bgs: Silty gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, gray, medium dense, wet, no odor	GM				

Boring/Well Construction Details



Well Construction Information

Monument Type:	12" flush-mount	**Filter Pack:**	2/12 sand	**Ground Surface Elevation (ft msl):**	281.9
Casing Diameter (in):	2"	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft msl):**	281.6
Screen Slot Size (in):	0.010	**Annular Seal:**	Bentonite chips	**Surveyed Location:**	**X:**673576.59
Screened Interval (ft bgs):	58.45-48.45	**Boring Abandonment:**	NA		**Y:**1149442.439

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Log of Boring: MW-21

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Client: Woodworth & Company, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

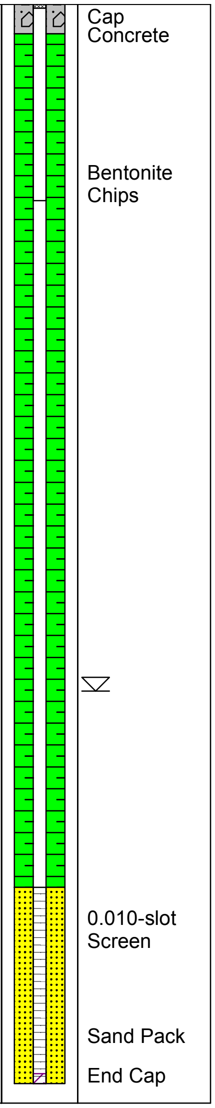
Farallon PN: 188-001

Logged By: Jon Peterson

Date/Time Started:	9/28/09 @ 1200	**Sampler Type:**	Sonic core sampler
Date/Time Completed:	9/28/09 @ 1600	**Drive Hammer (lbs):**	Auto
Equipment:	LAR- Sonic	**Depth of Water (ft bgs):**	35
Drilling Company:	Boart Longyear	**Total Boring Depth (ft bgs):**	55
Drilling Foreman:	Jeremy Thompson	**Total Well Depth (ft bgs):**	55
Drilling Method:	Sonic		

Depth (feet bgs)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts	PID (ppmv)	Sample ID	Sample Analyzed
0		0-0.5' bgs: Asphalt	GP		100	NA			
		0.5-20' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, gray, medium dense, dry, no odor	GW						
5					100				
10		12-12.5' bgs: rock fragments, dry, no odor			70		0.5	MW21-092809-10 @ 1400	
15		18-18.5' bgs: rock fragments, moist, no odor			100				
20		20-35' bgs: Silty gravel with sand (50% gravel, 35% silt, 15% sand), fine to coarse gravel, fine to coarse sand, gray, medium dense, moist, no odor	GM		100		1.1	MW21-092809-20 @1430	
25					100				
30					100				
35		35-40' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, gray, medium dense, wet, no odor	GW		100		0.5	MW21-092809-35 @ 1445 MW21-092809-37-GW @ 1500	
40		40-40.5' bgs: Poorly-graded sand, fine, brown, medium dense, wet, no odor	SP		100				
		40.5-43' bgs: Poorly-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine gravel, fine to medium sand, gray to brown, loose, wet, no odor	GP						
45					100				
		43-55' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, gray, medium dense, wet, no odor	GW						
50					100				
55									

Boring/Well Construction Details



Well Construction Information

Monument Type:	12" flush-mount	**Filter Pack:**	2/12 sand	**Ground Surface Elevation (ft msl):**	281.85
Casing Diameter (in):	2"	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft msl):**	281.23
Screen Slot Size (in):	0.010	**Annular Seal:**	Bentonite chips	**Surveyed Location:**	**X:**673791.748
Screened Interval (ft bgs):	55-45	**Boring Abandonment:**	NA		**Y:**1149372.839

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Log of Boring: MW-22

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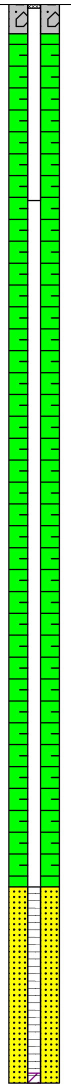
Client: Woodworth & Company, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-001

Logged By: Jon Peterson

Date/Time Started:	9/28/09 @ 0800	**Sampler Type:**	Sonic core sampler
Date/Time Completed:	9/28/09 @ 1200	**Drive Hammer (lbs):**	Auto
Equipment:	LAR- Sonic	**Depth of Water (ft bgs):**	15, 31
Drilling Company:	Boart Longyear	**Total Boring Depth (ft bgs):**	55
Drilling Foreman:	Jeremy Thompson	**Total Well Depth (ft bgs):**	55
Drilling Method:	Sonic		

Depth (feet bgs)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-0.5' bgs: Asphalt	GP		100	NA				Cap Concrete
		0.5-10' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, medium dense, moist, no odor	GW							
5					100					
										Bentonite Chips
10		10-15' bgs: Silty gravel with sand (50% gravel, 35% silt, 15% sand), fine to coarse gravel, fine sand, brown, dense, moist, no odor	GM		100		0.1	MW22-092809-10 @ 0830		
							0.2	MW22-092809-14.5 @ 0845		▽
15		15-18' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, medium dense, wet, no odor	GW		100			MW22-092809-15-GW @ 0900		
		18-38' bgs: Silty gravel with sand (50% gravel, 35% silt, 15% sand), fine to coarse gravel, fine sand, brown, dense, moist, no odor	GM							
20					100					
25		25' bgs: staining			100		0.4	MW22-092809-25 @ 0930		
30		31-38' bgs: wet			100		0.3	MW22-092809-30.5 @ 1000		▽
35					100					
		38-40' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, medium dense, wet, no odor	GW					MW22-092809-38-GW @ 1030		
40		40-49' bgs: Well-graded gravel with sand (85% gravel, 15% sand), fine to coarse gravel, fine to coarse sand, gray, medium dense, wet, no odor	GW		100					
45					100					0.010-slot Screen
50		49-55' bgs: Silty gravel with sand (50% gravel, 35% silt, 15% sand), fine to coarse gravel, fine sand, brown, dense, wet, no odor	GM		100					Sand Pack
55										End Cap



Well Construction Information

Monument Type:	12" flush-mount	**Filter Pack:**	2/12 sand	**Ground Surface Elevation (ft msl):**	279.14
Casing Diameter (in):	2"	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft msl):**	278.69
Screen Slot Size (in):	0.010	**Annular Seal:**	Bentonite chips	**Surveyed Location:**	**X:**673881.162
Screened Interval (ft bgs):	55-45	**Boring Abandonment:**	NA		**Y:**1149456.864

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Log of Boring: MW-23

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Client: Woodworth & Company, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-001

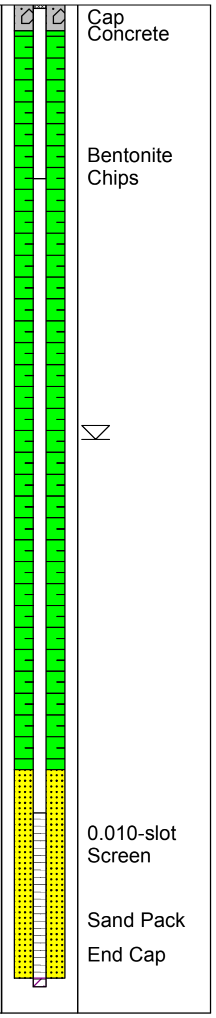
Logged By: Jon Peterson

Date/Time Started: 11/23/09 @ 0800
Date/Time Completed: 11/23/09 @ 1300
Equipment: Auger Rig
Drilling Company: Boart Longyear
Drilling Foreman: John Bennet
Drilling Method: Auger

Sampler Type: Dames and Moore Split-Spoon
Drive Hammer (lbs): Auto
Depth of Water (ft bgs): 46.5-56.5
Total Boring Depth (ft bgs): 56.5
Total Well Depth (ft bgs): 56.5

Depth (feet bgs)	Lithologic Description	USCS	% Recovery	Blow Counts	PID (ppmv)	Sample ID	Sample Analyzed
0	0-0.5' bgs: Asphalt	GP					
	0.5-5' bgs: Poorly-graded gravel with sand (70% gravel, 30% sand), fine to coarse gravel, fine to coarse sand, gray, dense, wet, no odor	GP					
5	5-5.5' bgs: gravel coarse, sand fine to medium, tan with gray staining, faint petroleum-like odor, no sheen		25	4/5/ 50 for 2"	2.4		
10	10-11' bgs: Poorly-graded gravel with sand (60% gravel, 40% sand), fine to coarse gravel, fine to medium sand, tan, dense, dry, no odor	GW	50	5/7/7			
15	15-16.5' bgs: Silty gravel with sand (50% gravel, 30% silt, 20% sand), fine to coarse gravel, fine sand, tan with gray staining, dense, moist, no odor	GM	90	16/24/31	0.3		
20	20-20.5' bgs: Silty gravel (55% gravel, 45% silt), fine to coarse gravel, tan, dense/stiff, moist to dry, no odor	GM	30	50 for 6"			
25	25-26.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine sand, tan, loose due to saturation, wet, no odor	GW	80	50 for 6"	0.1		
30	30-31.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine sand, tan, dense, moist to dry, no odor	GW	90	50 for 6"	0.3		
35	35-36.5' bgs: Well-graded sand with gravel (70% sand, 30% gravel), fine to coarse sand, fine gravel, tan, dense, moist to wet, no odor	SW	100	31/42/50	0.3		
40	40-41' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine sand, black with rusty staining, dense, moist, no odor	GM	60	42/50 for 4"	0.3		
45	45-45.5' bgs: Poorly-graded gravel, fine, dark gray, loose, wet, no odor	GP	15	50 for 6"	0.3		
50	50-51.5' bgs: Poorly-graded gravel, fine, dark gray, loose, wet, no odor	GP	100	21/24/14	0.3		
55	55-56' bgs: Poorly-graded gravel, fine, dark gray, loose, wet, no odor	GP	100	46/50 for 3"	0.4		
	56-56.5' bgs: Silty gravel with sand (50% gravel, 30% silt, 20% sand), fine to coarse gravel, fine sand, tan with black staining, dense, moist, no odor, no sheen	GM					

Boring/Well Construction Details



Well Construction Information

Monument Type:	12" flush-mount	**Filter Pack:**	2/12 sand	**Ground Surface Elevation (ft msl):**	278.24
Casing Diameter (in):	2"	**Surface Seal:**	Concrete	**Top of Casing Elevation (ft msl):**	277.95
Screen Slot Size (in):	0.010	**Annular Seal:**	Bentonite chips	**Surveyed Location:**	**X:**674059.379
Screened Interval (ft bgs):	55-45	**Boring Abandonment:**	NA		**Y:**1149672.465

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Log of Boring: MW-24

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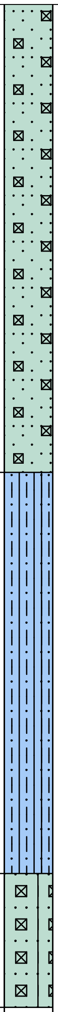
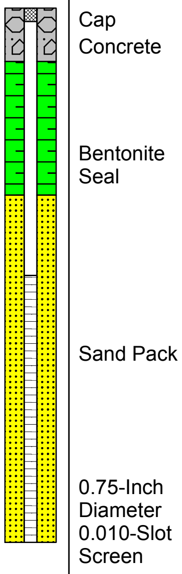
Client: Woodworth Capital, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

Logged By: J. Peterson

Date/Time Started:	10/05/10 0830
Date/Time Completed:	10/05/10 1045
Equipment:	Power Probe
Drilling Company:	ESN-NW
Drilling Foreman:	Noel
Drilling Method:	Direct Push
Sampler Type:	Macrocore
Drive Hammer (lbs.):	Auto
Depth of Water ATD (ft bgs):	Rose to 4' bgs
Total Boring Depth (ft bgs):	7.5
Total Well Depth (ft bgs):	7.5

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-3.5': Sandy gravel, fine gravel, fine sand, no odor (overburden removed)	GP							
5		3.5-6.5': Silty sand with gravel (45% sand, 20% silt, 35% gravel), fine to medium sand, fine to coarse gravel, gray, moist to wet, petroleum-like odor, asphalt debris.	SM							
		6.5-7.5': Silty gravel (50% gravel, 30%silt, 20% sand), fine to coarse gravel, fine sand, gray to tan, odor and stain decreasing with depth, absent by 7.5' bgs.	GM							

Well Construction Information

Monument Type:	Flush Mount
Casing Diameter (inches):	3/4 inch
Screen Slot Size (inches):	0.01
Screened Interval (ft bgs):	5.5-7.5
Filter Pack:	2-12
Surface Seal:	Concrete
Annular Seal:	Bentonite
Ground Surface Elevation (ft):	NA
Top of Casing Elevation (ft):	NA
Boring Abandonment:	NA

Surveyed Location: **X:** NA **Y:** NA

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Log of Boring: MW-25

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Client: Woodworth Capital, Inc.
Project: Woodworth Lakeview
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: E. Mulanax & E. Eckles

Date/Time Started: 8/6/12 @ 0853
Date/Time Completed: 8/6/12 @ 1029
Equipment: CME 75
Drilling Company: Cascade Drilling
Drilling Foreman: Scott Krueger
Drilling Method: Hollow Stem Auger

Sampler Type: D&M SS 18"x2"
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 15.0
Total Boring Depth (ft bgs): 36.5
Total Well Depth (ft bgs): 35.0

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0										Monument
5	☒	5.0-6.0' bgs: Silty SAND with gravel (65% sand, 20% silt, 15% gravel), fine to medium sand, fine to coarse gravel, very dense, moist, dark gray-brown, no odor.	SM		100	35/50 for 6"	1.0	MW-25-5.0		
10	☒	10.0-11.0' bgs: Silty SAND with gravel (65% sand, 20% silt, 15% gravel), fine to medium sand, fine to coarse gravel, very dense, moist, dark gray-brown, no odor.	SM		100	38/50 for 6"	0.9	MW-25-10.0		Bentonite Seal
	☒	12.0-12.2' bgs: Silty SAND with gravel (65% sand, 20% silt, 15% gravel), fine to medium sand, fine to coarse gravel, very dense, moist, dark gray-brown, no odor.	SM		20	42/50 for 6"	1.2			
		12.2-13.0' bgs: No Recovery.								
15	☒	15.0-16.5' bgs: Gravelly SILT with sand (60% silt, 20% sand, 20% gravel), fine to coarse sand and gravel, hard, wet, brown, no odor.	ML		100	4/4/50 for 6"	1.3	MW-25-15.0	X	▽ Water Level
	☒	18.0-18.7' bgs: Silty SAND with gravel (45% sand, 30% gravel, 25% silt), fine to coarse sand and gravel, very dense, wet, brown, no odor.	SM		88	50/50 for 4"	1.4	MW-25-18.0	X	
		18.7-19.0' bgs: No Recovery.								
20										

Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 20.0-35.0

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 279.75
Top of Casing Elevation (ft): 279.43
Surveyed Location: **X:** NA
Y: NA

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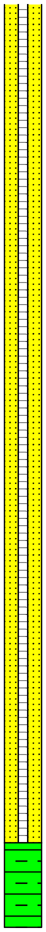
Log of Boring: MW-25

Client: Woodworth Capital, Inc.
Project: Woodworth Lakeview
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: E. Mulanax & E. Eckles

Date/Time Started:	8/6/12 @ 0853	**Sampler Type:**	D&M SS 18"x2"
Date/Time Completed:	8/6/12 @ 1029	**Drive Hammer (lbs.):**	300
Equipment:	CME 75	**Depth of Water ATD (ft bgs):**	15.0
Drilling Company:	Cascade Drilling	**Total Boring Depth (ft bgs):**	36.5
Drilling Foreman:	Scott Krueger	**Total Well Depth (ft bgs):**	35.0
Drilling Method:	Hollow Stem Auger		



Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
20										
		21.0-21.7' bgs: Well-graded GRAVEL with silt and sand (65% gravel, 25% sand, 10% silt), coarse gravel, fine to coarse sand, very dense, wet, brown, no odor.	GW-GM		70	44/50 for 6"	1.3	MW-25-21.0		
		21.7-22.0' bgs: No Recovery.								2/12 Sand Pack
25		25.0-26.0' bgs: Silty SAND with gravel (45% sand, 30% gravel, 25% silt), fine to coarse sand and gravel, very dense, wet, brown, no odor.	SM		100	43/50 for 6"	1.2	MW-25-25.0	X	Casing
30		30.0-31.0' bgs: Silty GRAVEL with sand (65% gravel, 20% sand, 15% silt), fine to coarse sand and gravel, very dense, wet, brown, no odor.	GM		100	41/50 for 6"	0.5	MW-25-30.0		0.01 Slot PVC Well Screen
35		35.0-35.5' bgs: Silty GRAVEL with sand (65% gravel, 20% sand, 15% silt), fine to coarse sand and gravel, very dense, wet, brown, no odor.	GM		100	50 for 6"	1.1	MW-25-35.0	X	Bentonite Backfill

Well Construction Information

Monument Type:	Flush Mount	**Filter Pack:**	2/12 sand	**Ground Surface Elevation (ft):**	279.75
Casing Diameter (inches):	2"	**Surface Seal:**	Cement	**Top of Casing Elevation (ft):**	279.43
Screen Slot Size (inches):	0.010	**Annular Seal:**	Bentonite	**Surveyed Location:**	**X:** NA
Screened Interval (ft bgs):	20.0-35.0	**Boring Abandonment:**	NA		**Y:** NA

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Log of Boring: MW-26

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Client: Woodworth Capital, Inc.
Project: Woodworth Lakeview
Location: Lakewood, WA

Farallon PN: 188-002

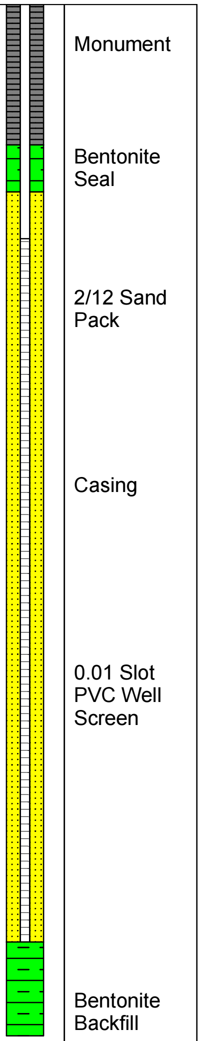
Logged By: E. Mulanax & E. Eckles

Date/Time Started: 8/6/12 @ 1120
Date/Time Completed: 8/6/12 @ 1148
Equipment: CME 75
Drilling Company: Cascade Drilling
Drilling Foreman: Scott Krueger
Drilling Method: Hollow Stem Auger

Sampler Type: D&M SS 18"x2"
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): NA
Total Boring Depth (ft bgs): 11.0
Total Well Depth (ft bgs): 10.0

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		0.0-0.2' bgs: Asphalt.	AC						
	☒	2.0-3.0' bgs: Well-graded SAND with silt and gravel (50% sand, 40% gravel, 10% silt), fine to coarse sand and gravel, very dense, moist, brown-gray, dark brown at 2.0-2.5', no odor.	SW-SM		100	32/50 for 6"	2.1	MW-26-2.0	X
5									
10	☒	10.0-10.5' bgs: Gravelly SILT with sand (70% silt, 20% gravel, 10% sand), fine to coarse gravel, fine to medium sand, brown-gray, hard, moist to wet, medium dense, no odor.	ML		100	50 for 6"	1.7	MW-26-10.0	X

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 2.5-10.0'

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 279.70
Top of Casing Elevation (ft): 279.30
Surveyed Location: **X:** NA **Y:** NA

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Log of Boring: MW-27

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Client: Woodworth Capital, Inc.
Project: Woodworth Lakeview
Location: Lakewood, WA

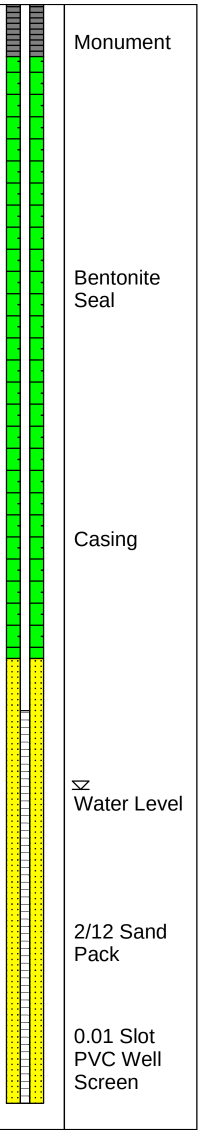
Farallon PN: 188-002

Logged By: Emerald Mulanax

Date/Time Started: 1/5/13 @ 1307
Date/Time Completed: 1/5/13 @ 1339
Equipment: CME 75
Drilling Company: Cascade Drilling
Drilling Foreman: James Goble
Drilling Method: Hollow Stem Auger

Sampler Type: D&M SS 18"x2"
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 30.0
Total Boring Depth (ft bgs): 42.0
Total Well Depth (ft bgs): 42.0

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		See boring log of MW-28 for lithologic description.								



Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 27.0-42.0

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 310.5 (approx.)
Top of Casing Elevation (ft): 310.0 (approx.)
Surveyed Location: **X:** NA
Y: NA

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Log of Boring: MW-28

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Client: Woodworth Capital, Inc.
Project: Woodworth Lakeview
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: Emerald Mulanax

Date/Time Started: 1/5/13 @ 0945
Date/Time Completed: 1/5/13 @ 1140
Equipment: CME 75
Drilling Company: Cascade Drilling
Drilling Foreman: James Goble
Drilling Method: Hollow Stem Auger

Sampler Type: D&M SS 18"x2"
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 30.0,50.0
Total Boring Depth (ft bgs): 60.0
Total Well Depth (ft bgs): 58.0

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-0.7' bgs: Asphalt.	AC							Monument
5		5.0-5.5' bgs: Well-graded GRAVEL with sand (75% gravel, 20% sand, 5% silt), fine to coarse gravel, fine to medium sand, very dense, moist, medium brown, no odor.	GW		100	50 for 6"	2.2	MW-28-5.3		
10		10.0-11.0' bgs: Well-graded GRAVEL with sand (75% gravel, 20% sand, 5% silt), fine to coarse gravel, fine to medium sand, very dense, moist, medium brown, no odor.	GW		100	39/50 for 6"	3.9	MW-28-10.5		Bentonite Seal
15		15.0-15.5' bgs: Poorly graded SAND with silt and gravel (60% sand, 30% gravel, 10% silt), fine to medium sand, fine to coarse gravel, gray, very dense, moist to wet, no odor.	SP-SM		100	50 for 6"	2.5	MW-28-15.3		
20		20.0-20.5' bgs: Poorly graded SAND with silt and gravel (50% sand, 40% gravel, 10% silt), fine to medium sand, fine to coarse gravel, medium brown, very dense, moist to wet, no odor.	SP-SM		100	50 for 6"	2.9	MW-28-20.3		Casing
25		25.0-25.3' bgs: Poorly graded SAND with silt and gravel (50% sand, 40% gravel, 10% silt), fine to medium sand, fine to coarse gravel, medium brown, very dense, moist to wet, no odor.	SP-SM		100	50 for 6"	4.4	MW-28-25.3	X	
		25.3-25.5' bgs: Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, medium brown, very dense, moist, no odor.	SP-SM							
30		30.0-30.5' bgs: Poorly graded SAND with silt (80% sand, 10% gravel, 10% silt), fine to medium sand, fine to coarse gravel, medium brown, very dense, wet, no odor.	SP-SM		100	50 for 6"	2.5	MW-28-30.3		▽ Water Level

Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 48.0-58.0

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 310.5 (approx.)
Top of Casing Elevation (ft): 310.0 (approx.)
Surveyed Location: **X:** NA
Y: NA

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Log of Boring: MW-28

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Client: Woodworth Capital, Inc.
Project: Woodworth Lakeview
Location: Lakewood, WA

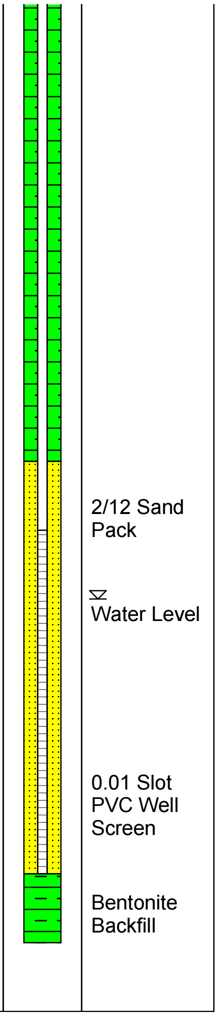
Farallon PN: 188-002

Logged By: Emerald Mulanax

Date/Time Started: 1/5/13 @ 0945
Date/Time Completed: 1/5/13 @ 1140
Equipment: CME 75
Drilling Company: Cascade Drilling
Drilling Foreman: James Goble
Drilling Method: Hollow Stem Auger

Sampler Type: D&M SS 18"x2"
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 30.0,50.0
Total Boring Depth (ft bgs): 60.0
Total Well Depth (ft bgs): 58.0

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
35	☒	35.0-35.5' bgs: Poorly Graded GRAVEL with sand and silt (75% gravel, 15% sand, 10% silt), coarse gravel, fine to coarse sand, medium brown, very dense, wet, no odor.	GP		100	50 for 6"	2.5	MW-28-35.3		
40	☒	40.0-40.3' bgs: Poorly graded SAND with silt (80% sand, 10% gravel, 10% silt), fine to medium sand, fine to coarse gravel, medium brown, very dense, moist to wet, no odor.	SP-SM		100	50 for 6"	3.9	MW-28-40.3		
		40.3-40.5' bgs: Sandy SILT with gravel (65% silt, 20% sand, 15% gravel), fine sand, coarse gravel, medium brown, hard, moist to wet, no odor.	ML							
45	☒	45.0-45.5' bgs: SILT with gravel (60% silt, 25% gravel, 15% sand), fine to coarse gravel, fine to medium sand, gray, hard, moist, no odor.	ML		100	50 for 6"	1.6	MW-28-45.3		2/12 Sand Pack
50	☒	50.0-50.5' bgs: Poorly graded SAND with silt and gravel (70% sand, 20% gravel, 10% silt), fine to medium sand, fine to coarse gravel, medium brown, very dense, wet, no odor.	SP-SM		100	50 for 6"	2.2	MW-28-50.3	X	Water Level
55	☒	55.0-55.5' bgs: Well-graded GRAVEL with silt and sand (70% gravel, 20% sand, 10% silt), fine to coarse gravel, fine to coarse sand, grayish brown, very dense, wet, no odor.	GP-GM		100	50 for 6"	3.4	MW-28-55.3		0.01 Slot PVC Well Screen
60	☒	60.0-60.5' bgs: No recovery.			0	50 for 6"				Bentonite Backfill



Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 48.0-58.0

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 310.5 (approx.)
Top of Casing Elevation (ft): 310.0 (approx.)
Surveyed Location: X: NA
Y: NA

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Log of Boring: MW-29

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Client: Woodworth Capital, Inc.
Project: Woodworth Lakeview
Location: Lakewood, WA

Farallon PN: 188-002

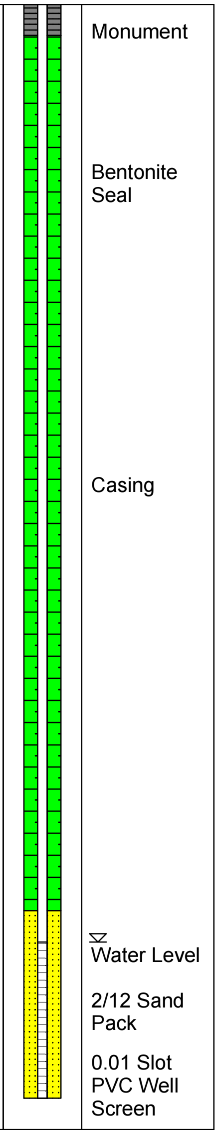
Logged By: Dincer Kayhan

Date/Time Started: 1/12/13 @ 1120
Date/Time Completed: 1/12/13 @ 1500
Equipment: CME 75
Drilling Company: Cascade Drilling
Drilling Foreman: James Goble
Drilling Method: Hollow Stem Auger

Sampler Type: D&M SS 18"x2"
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 60.0
Total Boring Depth (ft bgs): 70.0
Total Well Depth (ft bgs): 70.0

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0	0.0-0.9' bgs: Concrete.	CO					
20	20.0-20.5' bgs: Well graded SAND with gravel (60% sand, 40% gravel), fine to coarse sand and gravel, brown, very dense, moist, no odor, cobbles present.	SP	100	50 for 6"	0.0	MW-29-20.0	
35	35.0-35.5' bgs: Well graded SAND with gravel (60% sand, 40% gravel), fine to coarse sand and gravel, brown, very dense, wet, no odor, cobbles present.	SP	100	50 for 6"	0.3	MW-29-35.0	X
60	60.0-60.5' bgs: Poorly graded Gravel with sand (60% gravel, 40% sand), fine to coarse sand, coarse gravel, gray, very dense, wet, no odor.	GP	100	50 for 6"	0.0	MW-29-60.0	

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 60.0-70.0

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 310.5 (approx.)
Top of Casing Elevation (ft): 300.0 (approx.)
Surveyed Location: **X:** NA **Y:** NA

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Log of Boring: MW-30

Client: Woodworth Capital, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

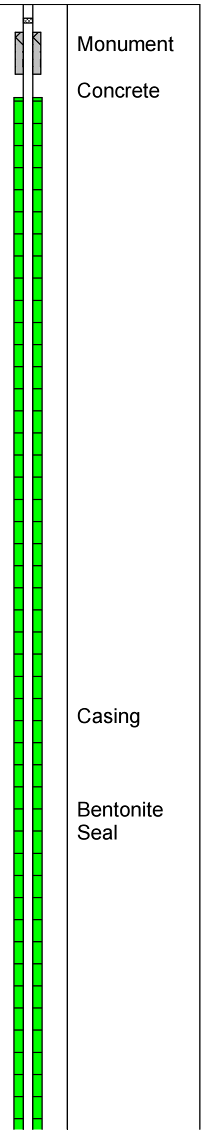
Farallon PN: 188-002

Logged By: Ken Scott

Date/Time Started:	9/9/14 @ 1030	**Sampler Type:**	2.5' Poly Sac
Date/Time Completed:	9/9/14 @ 1415	**Drive Hammer (lbs.):**	NA
Equipment:	Terra Sonic	**Depth of Water ATD (ft bgs):**	Dry
Drilling Company:	Holt Drilling	**Total Boring Depth (ft bgs):**	70.0
Drilling Foreman:	Brian Owen	**Total Well Depth (ft bgs):**	38.0
Drilling Method:	Sonic		

Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0.0-1.1' bgs: Silty SAND with gravel Fill (65% sand, 20% silt, 15% gravel), fine to coarse sand, fine to coarse gravel, light-brown, moist, no odor, no sheen. Subangular gravel.	SM					
1.1-4.9' bgs: SILT with gravel (60% silt, 35% gravel, 5% sand), fine to coarse gravel, fine sand, black, moist, organic odor, no sheen.	ML	100 100	NA NA	0.0 0.2	 MW-30-3.0	 X
4.9-6.8' bgs: Silty SAND with gravel (65% sand, 20% silt, 15% gravel), fine to coarse sand, fine to coarse gravel, light-grey, moist, no odor, no sheen. Subrounded to subangular grey gravel.	SM					
6.8-10.5' bgs: Silty SAND with gravel (60% sand, 25% silt, 15% gravel), fine to coarse sand, fine to coarse gravel, light-brown, moist, no odor, no sheen. Subrounded grey gravel.	SM	100 100	NA NA	0.0 0.0		
10.5-11.8' bgs: Silty SAND with gravel (55% sand, 30% silt, 15% gravel), fine to coarse sand, fine to coarse gravel, dark-grey, moist, no odor, no sheen. Subrounded grey gravel.	SM					
11.8-21.2' bgs: Silty SAND with gravel (60% sand, 20% silt, 20% gravel), fine to medium sand, fine to coarse gravel, brown, moist, no odor, no sheen. Subrounded grey gravel, 3 to 4-inch cobbles 15 to 20-feet bgs.	SM	100 100 100	NA NA NA	0.1 0.0 0.0	MW-30-13.0	
21.2-24.1' bgs: Silty SAND with gravel (50% sand, 35% silt, 15% gravel), fine to medium sand, fine to coarse gravel, dark-grey, moist, no odor, no sheen. Subrounded grey gravel.	SM	100 100	NA NA	0.0 0.0	 MW-30-23.0	

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 28.0-38.0

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 304.20'
Top of Casing Elevation (ft): 303.66'
Surveyed Location: **X:** NA **Y:** NA

Log of Boring: MW-30

Client: Woodworth Capital, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: Ken Scott

Date/Time Started: 9/9/14 @ 1030
Date/Time Completed: 9/9/14 @ 1415
Equipment: Terra Sonic
Drilling Company: Holt Drilling
Drilling Foreman: Brian Owen
Drilling Method: Sonic

Sampler Type: 2.5' Poly Sac
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): Dry
Total Boring Depth (ft bgs): 70.0
Total Well Depth (ft bgs): 38.0

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
25		24.1-27.5' bgs: SILT with gravel (75% silt, 10% sand, 15% gravel), fine to coarse gravel, fine sand, greyish-brown, moist, no odor, no sheen.	ML		100	NA	0.2			Bentonite Seal Sand
		27.5-28.5' bgs: Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine to coarse gravel, brown, moist, no odor, no sheen. Subangular grey gravel.	SP		100	NA	0.0			
			ML				0.0	MW-30-29.0	X	
30		28.5-29.8' bgs: Sandy SILT (60% silt, 35% sand, 5% gravel), fine to medium sand, fine to coarse gravel, brown, moist, slight odor, no sheen. Subrounded grey and black gravel.	ML							
		29.8-34.5' bgs: Sandy SILT (60% silt, 35% sand, 5% gravel), fine to medium sand, fine to coarse gravel, brown, moist, no odor, no sheen. Subrounded grey and black gravel, and 6-inch round grey cobble at 32-feet bgs.			100 100	NA NA	0.0 0.0			Screen
35		34.5-35.4' bgs: Sandy SILT (65% silt, 25% sand, 10% gravel), fine sand, fine to coarse gravel, yellowish-brown, moist, no odor, no sheen.	ML		100	NA	0.1			
		35.4-37.5' bgs: Silty SAND (55% sand, 40% silt, 5% gravel), fine to medium sand, fine to coarse gravel, brown, moist, no odor, no sheen.	SM				0.3	MW-30-37.0	X	
40		37.5-44.3' bgs: SILT with gravel (80% silt, 5% sand, 15% gravel), fine to coarse gravel, fine sand, dark-grey, moist, no odor, no sheen. Subrounded gravel.	ML		100 100 100	NA NA NA	0.0 0.0 0.0			End cap
45		44.3-54.7' bgs: Well-graded GRAVEL with silt and sand (55% gravel, 25% silt, 20% sand), fine to coarse gravel, fine to coarse sand, light-brown, moist, no odor, no sheen. Black and grey subrounded gravel.	GW		100	NA	0.0	MW-30-45.0		

Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 28.0-38.0

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 304.20'
Top of Casing Elevation (ft): 303.66'
Surveyed Location: **X:** NA **Y:** NA

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Log of Boring: MW-30

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Client: Woodworth Capital, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: Ken Scott

Date/Time Started: 9/9/14 @ 1030
Date/Time Completed: 9/9/14 @ 1415
Equipment: Terra Sonic
Drilling Company: Holt Drilling
Drilling Foreman: Brian Owen
Drilling Method: Sonic

Sampler Type: 2.5' Poly Sac
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): Dry
Total Boring Depth (ft bgs): 70.0
Total Well Depth (ft bgs): 38.0

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Boring/Well Construction Details
			100	NA	0.0		
50							
			100	NA	0.0		
			100	NA	0.0		
55	54.7-64.5' bgs: Silty SAND with gravel (55% sand, 25% silt, 20% gravel), fine to coarse sand, fine to coarse gravel, brown, moist, no odor, no sheen. Black and grey subrounded to subangular gravel.	SM			0.1	MW-30-55.0	
			100	NA	0.0		
			100	NA	0.0		Bentonite Seal
60			100	NA			
			100	NA			
					0.0		
			100	NA	0.0		
65	64.5-66.5' bgs: SILT with gravel (60% silt, 30% gravel, 10% sand), fine to coarse gravel, fine to coarse sand, brown, wet (driller added water), no odor, no sheen.	ML					
	66.5-70.0' bgs: Well-graded GRAVEL with silt and sand (70% gravel, 20% sand, 10% silt), fine to coarse gravel, fine to coarse sand, brown, wet (driller added water), no odor, no sheen.	GW-GM	100	NA	0.0		
			100	NA	0.0		
70							

Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 28.0-38.0

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 304.20'
Top of Casing Elevation (ft): 303.66'
Surveyed Location: **X:** NA **Y:** NA

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Log of Boring: MW-31

Page 1 of 2

Client: Woodworth Capital, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: Ken Scott

Date/Time Started: 9/8/14 @ 1435
Date/Time Completed: 9/8/14 @ 1615
Equipment: Terra Sonic
Drilling Company: Holt Drilling
Drilling Foreman: Brian Owen
Drilling Method: Sonic

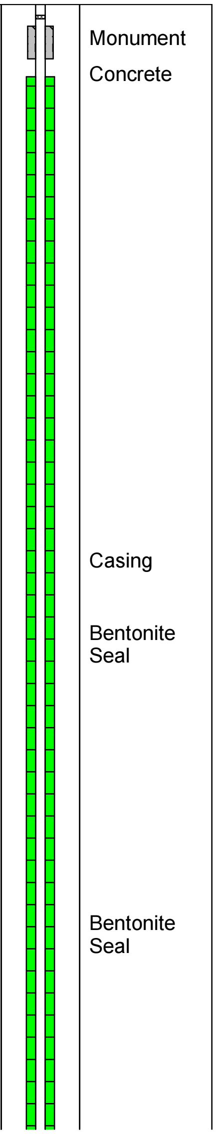
Sampler Type: 2.5' Poly Sac
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 48'
Total Boring Depth (ft bgs): 60.0
Total Well Depth (ft bgs): 56.0

Lithologic Description	USCS
0.0-1.6' bgs: Silty SAND with gravel Fill (65% sand, 20% silt, 15% gravel), fine to coarse sand, fine to coarse gravel, light-brown, moist, no odor, no sheen. Subangular gravel.	SM
1.6-3.8' bgs: Silty SAND with gravel Fill (60% sand, 25% silt, 15% gravel), fine to coarse sand, fine to coarse gravel, brown, moist, no odor, no sheen.	SM
3.8-8.4' bgs: Silty SAND with gravel Fill (45% sand, 40% silt, 15% gravel), fine to medium sand, fine to coarse gravel, grey, moist, no odor, no sheen.	SM
8.4-12.5' bgs: Silty SAND with gravel (50% sand, 30% silt, 20% gravel), fine to medium sand, fine to coarse gravel, blackish-brown, moist, slight organic odor, no sheen. Wood debris.	SM
12.5-16.5' bgs: SILT with gravel (65% silt, 20% gravel, 15% sand), fine to coarse gravel, fine to medium sand, grey, hard, moist, no odor, no sheen.	ML
16.5-19.2' bgs: Silty SAND (60% sand, 30% silt, 10% gravel), fine to coarse sand, fine to coarse gravel, brown, moist, no odor, no sheen.	SM
19.2-21.5' bgs: Sandy SILT with gravel (50% silt, 30% sand, 20% gravel), fine sand, fine to coarse gravel, grey, moist, no odor, no sheen.	ML
21.5-22.5' bgs: Silty SAND (70% sand, 25% silt, 5% gravel), fine to coarse sand, fine to coarse gravel, light-brown, moist, no odor, no sheen.	SM
22.5-26.5' bgs: SILT with gravel (65% silt, 20% gravel, 15% sand), fine to coarse gravel, fine sand, grey, moist, no odor, no sheen. Observe subround grey gravel, and 4-inch round cobbles 23 to 25 feet bgs.	ML
26.5-32.1' bgs: SILT (90% silt, 5% sand, 5% gravel),fine to medium sand, fine to coarse gravel, grey, moist, no odor, no sheen.	ML

% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
100	NA	0.0		
100	NA	0.0	MW-31-3.0	X
100	NA	0.0		
100	NA	0.0	MW-31-10.0	
100	NA	0.0		
100	NA	0.0		
100	NA	0.0		
100	NA	0.0		
100	NA	0.4	MW-31-23.0	
100	NA	0.1		
100	NA	0.0		

Depth (feet bgs.): 0, 5, 10, 15, 20, 25, 30

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 46.0-56.0

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 325.19'
Top of Casing Elevation (ft): 324.89'
Surveyed Location: X: NA
Y: NA

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Log of Boring: MW-31

Client: Woodworth Capital, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-002

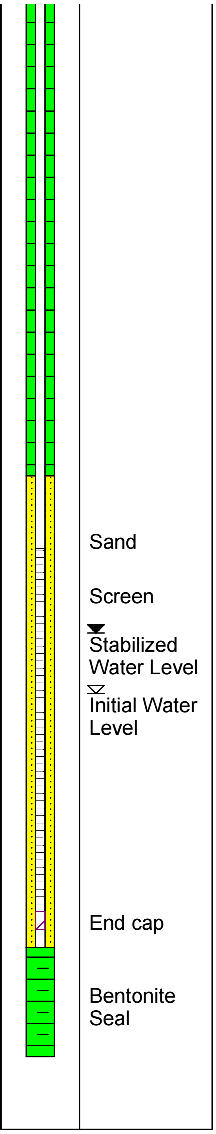
Logged By: Ken Scott

Date/Time Started: 9/8/14 @ 1435
Date/Time Completed: 9/8/14 @ 1615
Equipment: Terra Sonic
Drilling Company: Holt Drilling
Drilling Foreman: Brian Owen
Drilling Method: Sonic

Sampler Type: 2.5' Poly Sac
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 48'
Total Boring Depth (ft bgs): 60.0
Total Well Depth (ft bgs): 56.0

Lithologic Description	USCS
32.1-34.3' bgs: SILT (95% silt, 5% gravel), fine to coarse gravel, grey, moist, no odor, no sheen.	ML
34.3-38.5' bgs: Silty SAND with gravel (65% sand, 20% silt, 15% gravel), fine to medium sand, fine to coarse gravel, dark-grey, moist, no odor, no sheen. 4 to 6-inch subrounded grey cobbles 35 to 38 feet bgs.	SM
38.5-39.2' bgs: Silty SAND (65% sand, 30% silt, 5% gravel), fine to medium sand, fine to coarse gravel, dark-grey, moist, no odor, no sheen.	SM
39.2-40.5' bgs: Rock (95% rock, 5% silt), grey, moiost, no odor, no sheen. 4 to 6-inch subrounded grey cobbles.	RK
40.5-44.5' bgs: Silty SAND with gravel (60% sand, 25% silt, 15% gravel), fine to coarse sand, fine to coarse gravel, tan, moist, no odor, no sheen.	SM
44.5-45.5' bgs: Silty SAND with gravel (60% sand, 25% silt, 15% gravel), fine to medium sand, fine to coarse gravel, black, moist, odor, no sheen. Yellow-brick debris.	SM
45.5-47.5' bgs: SILT with gravel (80% silt, 15% gravel, 5% sand), fine to coarse gravel, fine sand, reddish-tan, moist to slightly wet, no odor, no sheen.	ML
47.5-50.0' bgs: SILT (95% silt, 5% gravel), white, dry to moist, no odor, no sheen. 4 to 6 inch subrounded to rounded cobbles.	ML
50.0-56.5' bgs: Silty SAND (70% sand, 25% silt, 5% gravel), fine to coarse sand, fine to coarse gravel, brown, wet, no odor, no sheen.	SM
56.5-60.0' bgs: SILT (100% silt), grey, wet, no odor, no sheen.	ML

% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
100	NA	0.0		
100	NA	0.0		
100	NA	0.0	MW-31-35.0	
100	NA	0.0		
100	NA	0.0		
100	NA	0.0		
100	NA	0.0	MW-31-45.0	X
			MW-31-48.0	
100	NA	0.0		
100	NA	0.0		
100	NA	0.0		
			MW-31-55.0	X
100	NA	0.1		
100	NA	0.0		
100	NA			



Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 46.0-56.0

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 325.19'
Top of Casing Elevation (ft): 324.89'
Surveyed Location: **X:** NA **Y:** NA

Log of Boring: MW-32

Client: Woodworth Capital, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

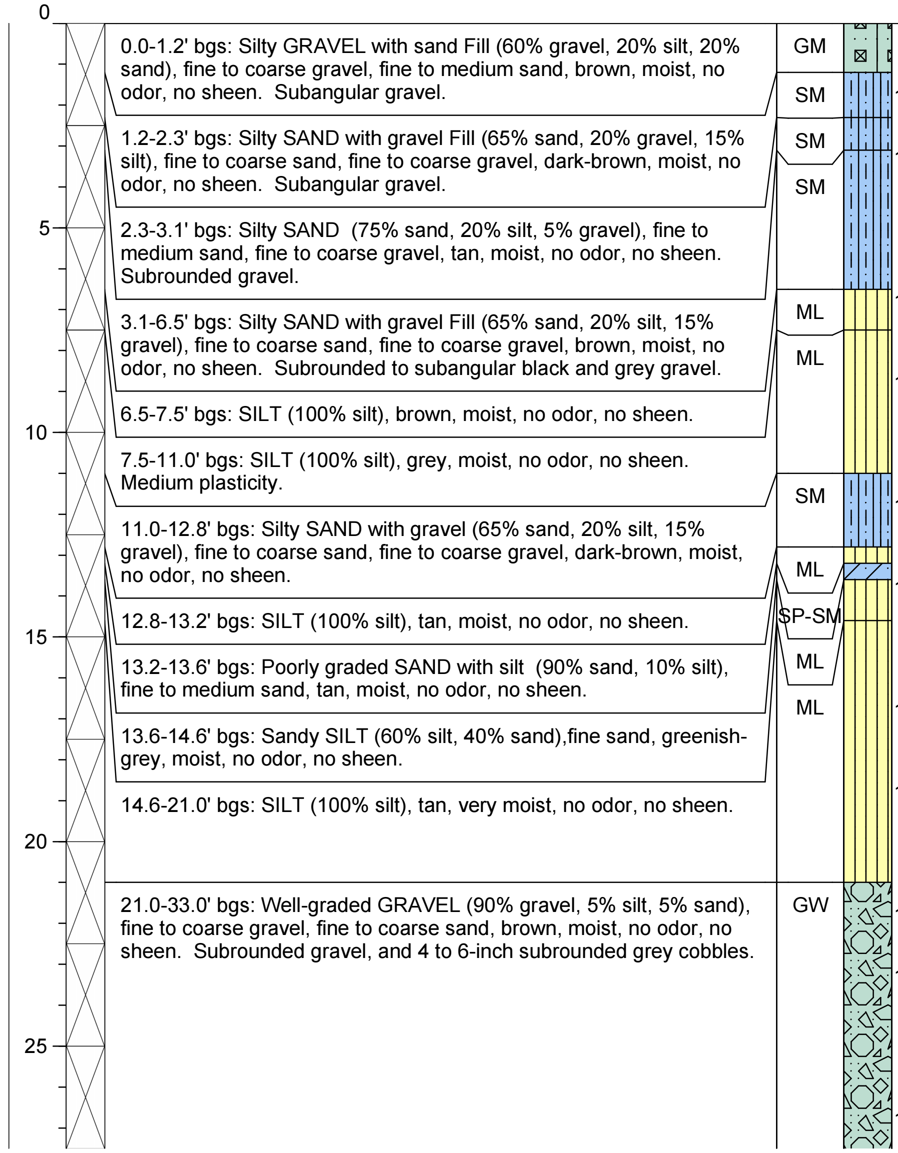
Farallon PN: 188-002

Logged By: Ken Scott

Date/Time Started: 9/8/14 @ 0940
Date/Time Completed: 9/8/14 @ 1125
Equipment: Terra Sonic
Drilling Company: Holt Drilling
Drilling Foreman: Brian Owen
Drilling Method: Sonic

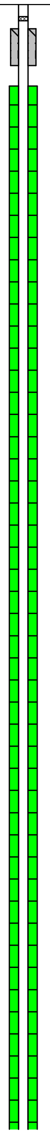
Sampler Type: 2.5' Poly Sac
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 38'
Total Boring Depth (ft bgs): 50.0
Total Well Depth (ft bgs): 45.0

Lithologic Description	USCS
0.0-1.2' bgs: Silty GRAVEL with sand Fill (60% gravel, 20% silt, 20% sand), fine to coarse gravel, fine to medium sand, brown, moist, no odor, no sheen. Subangular gravel.	GM
1.2-2.3' bgs: Silty SAND with gravel Fill (65% sand, 20% gravel, 15% silt), fine to coarse sand, fine to coarse gravel, dark-brown, moist, no odor, no sheen. Subangular gravel.	SM
2.3-3.1' bgs: Silty SAND (75% sand, 20% silt, 5% gravel), fine to medium sand, fine to coarse gravel, tan, moist, no odor, no sheen. Subrounded gravel.	SM
3.1-6.5' bgs: Silty SAND with gravel Fill (65% sand, 20% silt, 15% gravel), fine to coarse sand, fine to coarse gravel, brown, moist, no odor, no sheen. Subrounded to subangular black and grey gravel.	SM
6.5-7.5' bgs: SILT (100% silt), brown, moist, no odor, no sheen.	ML
7.5-11.0' bgs: SILT (100% silt), grey, moist, no odor, no sheen. Medium plasticity.	ML
11.0-12.8' bgs: Silty SAND with gravel (65% sand, 20% silt, 15% gravel), fine to coarse sand, fine to coarse gravel, dark-brown, moist, no odor, no sheen.	SM
12.8-13.2' bgs: SILT (100% silt), tan, moist, no odor, no sheen.	ML
13.2-13.6' bgs: Poorly graded SAND with silt (90% sand, 10% silt), fine to medium sand, tan, moist, no odor, no sheen.	SP-SM
13.6-14.6' bgs: Sandy SILT (60% silt, 40% sand),fine sand, greenish-grey, moist, no odor, no sheen.	ML
14.6-21.0' bgs: SILT (100% silt), tan, very moist, no odor, no sheen.	ML
21.0-33.0' bgs: Well-graded GRAVEL (90% gravel, 5% silt, 5% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, no sheen. Subrounded gravel, and 4 to 6-inch subrounded grey cobbles.	GW



% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
100	NA	0.0		
100	NA	0.0	MW-32-3.0	X
100	NA	0.0		
100	NA	0.0		
100	NA	0.0		
100	NA	0.0	MW-32-13.5	
100	NA	0.0		
100	NA	0.0		
100	NA	0.0		
100	NA	0.0	MW-32-23.0	
100	NA	0.0		

Boring/Well Construction Details



Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 35.0-45.0'

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 313.14'
Top of Casing Elevation (ft): 312.99'
Surveyed Location: **X:** NA **Y:** NA

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Log of Boring: MW-32

Page 2 of 2

Client: Woodworth Capital, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

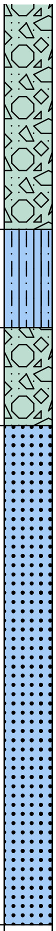
Farallon PN: 188-002

Logged By: Ken Scott

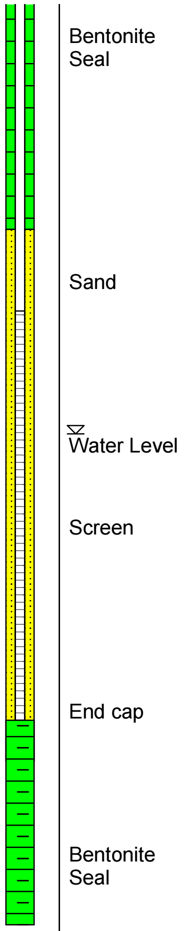
Date/Time Started: 9/8/14 @ 0940
Date/Time Completed: 9/8/14 @ 1125
Equipment: Terra Sonic
Drilling Company: Holt Drilling
Drilling Foreman: Brian Owen
Drilling Method: Sonic

Sampler Type: 2.5' Poly Sac
Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): 38'
Total Boring Depth (ft bgs): 50.0
Total Well Depth (ft bgs): 45.0

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
			100	NA	0.0		
30							
			100	NA	0.0		
	33.0-35.4' bgs: Silty SAND with gravel (65% sand, 20% silt, 15% gravel), fine to coarse sand, fine to coarse gravel, tan, moist, no odor, no sheen.	SM	100	NA	0.0		
35					0.0	MW-32-35.0	
	35.4-37.8' bgs: Well-graded GRAVEL with sand (75% gravel, 20% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, no sheen. Subrounded grey and black gravel. 4 to 6-inch subrounded grey cobbles 37 to 40-feet bgs.	GW	100	NA	0.0 0.0	MW-32-37.0	X
	37.8-50.0' bgs: Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine to coarse gravel, brown, wet, no odor, no sheen.	SP	100	NA	0.0		
40							
			100	NA	0.0		
			100	NA	0.0		
45					0.0	MW-32-45.0	X
			100	NA	0.0		
			100	NA	0.0		
50							
55							



Boring/Well Construction Details



Well Construction Information

Monument Type: Flush Mount
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 35.0-45.0'

Filter Pack: 2/12 sand
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 313.14'
Top of Casing Elevation (ft): 312.99'
Surveyed Location: **X:** NA **Y:** NA

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Log of Boring: AS-1

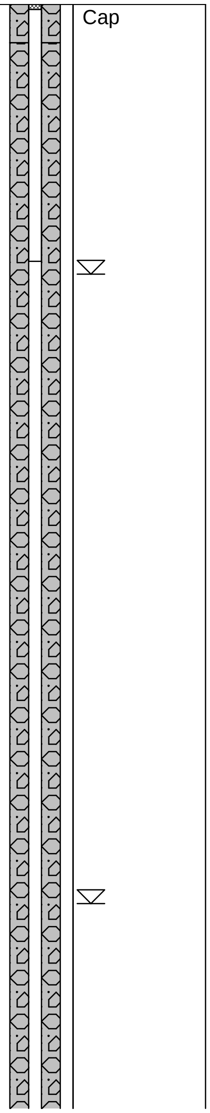
Client: Woodworth & Company, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington
Farallon PN: 188-001
Logged By: Jon Peterson

Date/Time Started:	9/23/09 @ 0800	**Sampler Type:**	Sonic core sampler
Date/Time Completed:	9/23/09 @ 1700	**Drive Hammer (lbs):**	Auto
Equipment:	LAR- Sonic	**Depth of Water (ft bgs):**	10.5, 35
Drilling Company:	Boart Longyear	**Total Boring Depth (ft bgs):**	85
Drilling Foreman:	Jeremy Thompson	**Total Well Depth (ft bgs):**	81.5
Drilling Method:	Sonic		

Lithologic Description	USCS
0-0.5' bgs: Asphalt	GP
0.5-9.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, medium dense, moist, no odor	GW
9.5-12' bgs: Poorly-graded sand (90% sand, 10% gravel), fine to med. sand, fine gravel, brown, med. dense, wet from 9.5-10' bgs, no odor	SP
12-15' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, medium dense, moist, no odor	GW
15-18' bgs: Poorly-graded sand (90% sand, 10% gravel), fine to med. sand, fine gravel, brown, med. dense, moist to wet, no odor	SP
18-22' bgs: Silty gravel (50% gravel, 40% silt, 10% sand), fine to coarse gravel, fine to coarse sand, tan, medium dense, moist, no odor	GM
22-24' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, medium dense, moist, no odor	GW
24-27' bgs: Silty gravel (50% gravel, 40% silt, 10% sand), fine to coarse gravel, fine to coarse sand, tan, medium dense, moist, no odor	GM
27-28' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, medium dense, moist, faint odor and staining 28-30' bgs: dry, no odor or staining	GW
30-35' bgs: Silty gravel (50% gravel, 40% silt, 10% sand), fine to coarse gravel, fine to coarse sand, tan, medium dense, moist, no odor, slight staining	GM
35-37' bgs: no recovery (liquid and soil escaped bottom of core)	
37-39' bgs: Well-graded gravel (90% gravel, 10% silt, 10% sand), fine to coarse gravel, fine sand, gray, loose, wet, no odor	GW
39-40' bgs: Silty gravel (45% gravel, 50% silt, 5% sand), fine to coarse gravel, fine to coarse sand, tan, medium dense, wet, no odor	GM GM

Depth (feet bgs)	% Recovery	Blow Counts	PID (ppmv)	Sample ID
0	100	NA		
5	100			
10	100		1.5	AS1-092309-9.5 @ 0900 AS1-092309-10-GW @ 0915
15	100			
20	100		2.5	AS1-092309-18 @ 0930
25	100			
30	100		2.9	AS1-092309-27.5 @ 1000
35	70		2.0	AS1-092309-35 @ 1200
40	100			

Boring/Well Construction Details

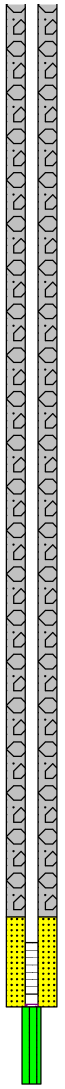


Well Construction Information

Monument Type:	12" flush-mount	**Filter Pack:**	2/12 sand	**Ground Surface Elevation (ft msl):**	280.1
Casing Diameter (in):	2"	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft msl):**	279.75
Screen Slot Size (in):	0.010	**Annular Seal:**	Bentonite chips	**Surveyed Location:**	**X:**673718.604
Screened Interval (ft bgs):	81.5-79.5	**Boring Abandonment:**	Bentonite		**Y:**1149448.554

Log of Boring: AS-1

Depth (feet bgs)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts	PID (ppmv)	Sample ID	Sample Analyzed	Well Construction Details
45 50		40-55' bgs: Silty gravel (50% gravel, 40% silt, 10% sand), fine to coarse gravel, fine to coarse sand, tan, medium dense, wet, no odor			100 100			AS1-092309-43-GW @ 1300		Grout
55 60		55-61' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, medium dense, wet, no odor	GW		100 100					
65 70 75 80		61-80.5' bgs: Well-graded sand with gravel (80% sand, 20% gravel), fine to coarse sand, fine to coarse gravel, dark gray, medium dense, wet, no odor	SW		90 100 100 100					Sand Pack
85		80.5-85' bgs: Inorganic silt and clay, gray, stiff, moist to dry, no odor	ML				0.0	AS1-092309-81 @ 1600		0.010-slot Screen End Cap Bentonite



Well Construction Information

Monument Type:	12" flush-mount	**Filter Pack:**	2/12 sand	**Ground Surface Elevation (ft msl):**	280.1
Casing Diameter (in):	2"	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft msl):**	279.75
Screen Slot Size (in):	0.010	**Annular Seal:**	Bentonite chips	**Surveyed Location:**	**X:**673718.604
Screened Interval (ft bgs):	81.5-79.5	**Boring Abandonment:**	Bentonite		**Y:**1149448.554

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Log of Boring: AS-2

Page 1 of 2

Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

Logged By: Jon Peterson

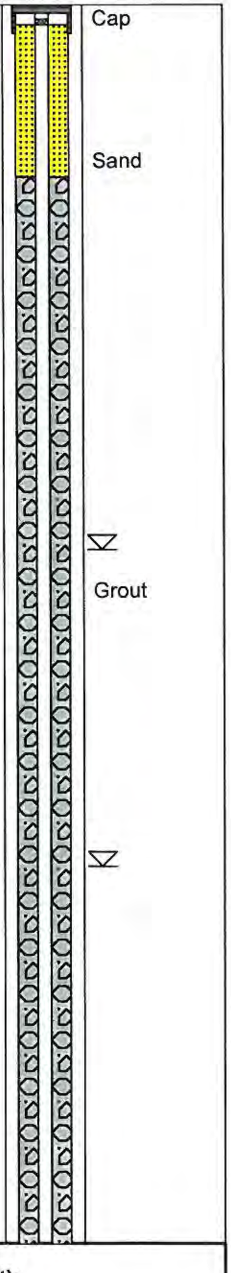
Date/Time Started: 1/29/10 @ 0800
Date/Time Completed: 1/29/10 @ 1600
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 19, 30
Total Boring Depth (ft bgs): 87.5
Total Well Depth (ft bgs): 87.5

Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW					
16-16.8 ' bgs: Silty gravel (45% gravel, 40% silt, 15% sand), fine to coarse gravel and sand, brown, moist, no odor	GM	100	50 for 6"	0.1		
20-21.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW	90	12/50 for 6"	0.2		
24-25.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW	100	19/20/31	0.3		
29-30' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW	70	24/50 for 6"	0.2		
30.5-32' bgs: Well-graded gravel with sand (75% gravel, 5% silt, 20% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW	90	39/50 for 3"	0.1		
39-40.5' bgs: Well-graded gravel with sand (75% gravel, 5% silt, 20% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW	100	23/50 for 6"	0.2		

Depth (feet bgs.): 0, 5, 10, 15, 20, 25, 30, 35, 40

Boring/Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 87.5-85.5

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673539.133 **Y:** 1149411.779

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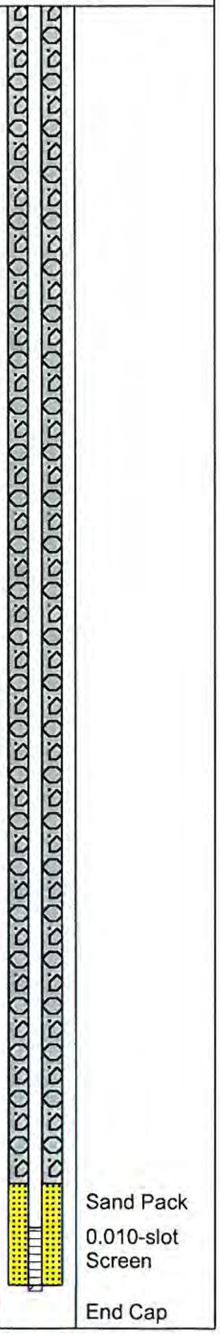
Log of Boring:AS-2

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
45									
50	☒	49-50' bgs: Well-graded gravel with sand (75% gravel, 5% silt, 20% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor, gravel becomes fine near 50' bgs	GW/GP		100	50 for 6"	0.1	AS2-012910-49 (GW Recon)	X
55									
60									
65	☒	64-64.7' bgs: Well-graded gravel with sand (70% gravel, 10% silt, 20% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW		100	50 for 6"	0.2		
70									
75	☒	74-75.5' bgs: Well-graded gravel with sand (70% gravel, 10% silt, 20% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW		90	24/50 for 6"	0.2		
80	☒	79-80' bgs: Well-graded sand and gravel (60% sand, 40% gravel), fine to coarse sand, fine gravel, gray, wet, no odor	SW		90	50 for 6"	0.1		
85	☒	84-85' bgs: Well-graded sand and gravel (60% sand, 40% gravel), fine to coarse sand, fine gravel, gray, wet, no odor	SW		80	22/50 for 6"	0.2		
	☒	85-86.5' bgs: Poorly-graded sand (100% sand), fine, gray, wet, no odor	SP		100	22/50 for 6"	0.2		
		86.5-87.5' bgs: Silt (100% silt), gray, moist, no odor, moderate plasticity	ML						

Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 87.5-85.5
Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout
Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673539.133 **Y:** 1149411.779

FARALLON
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975 5th Avenue Northwest
Issaquah, Washington 98027

Log of Boring: AS-3

Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

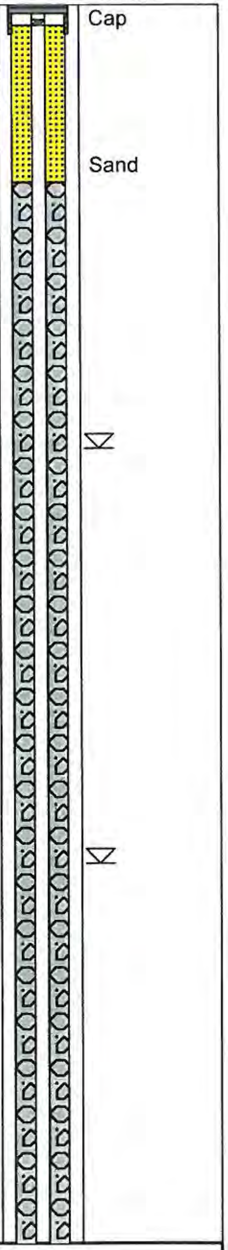
Farallon PN: 188-002

Logged By: Jon Peterson

Date/Time Started: 1/20/10 @ 0800
Date/Time Completed: 1/20/10 @ 1600
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 15, 29
Total Boring Depth (ft bgs): 83.5
Total Well Depth (ft bgs): 83.3

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-0.5' bgs: Asphalt					0.4			Cap
		0.5-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW							
5										Sand
10		9-10.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW		100	14/50 for 6"	0.3			
15		Approx. 15' bgs: Cuttings become wet								
20		19-19.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW		70	17/50 for 6"	0.1			
		19.5-20' bgs: Silty gravel with sand (40% gravel, 30% silt, 30% sand), coarse gravel, fine sand, gray, moist, no odor	GM							
25		24-25.5' bgs: Silty gravel with sand (40% gravel, 30% silt, 30% sand), coarse gravel, fine to coarse sand, gray, moist, no odor	GM		90	12/50 for 6"	0.2			
		24-25.5' bgs: Silty gravel with sand (40% gravel, 30% silt, 30% sand), coarse gravel, fine to coarse sand, gray, moist, no odor								
30		29-30' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW		100	15/50 for 6"	0.5			
		30-30.5' bgs: Well-graded sand (100% sand), fine to coarse, brown, wet, no odor	SW							
35		34-35' bgs: Well-graded sand with gravel (60% sand, 40% gravel), fine to coarse sand, fine gravel, gray, wet, no odor	SW		60	11/50 for 6"	0.3			
40		39-40.5' bgs: Well-graded sand with gravel (60% sand, 40% gravel), fine to coarse sand, fine gravel, gray, wet, no odor	SW		90	43/50 for 6"	0.3			



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 83.3-81.3

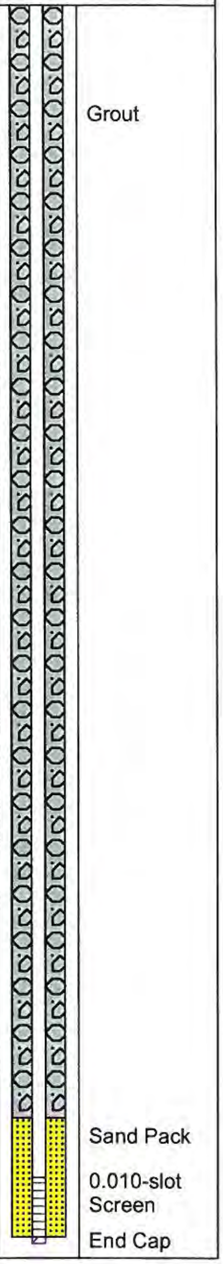
Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673568.476 **Y:** 1149478.759

Log of Boring: AS-3

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
45	44-45.5' bgs: Well-graded gravel (70% gravel, 10% silt, 20% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW	100	22/50 for 6"	0.5		
50							
55	54-55' bgs: Well-graded gravel (70% gravel, 10% silt, 20% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW	100	24/50 for 5"	0.4		
60							
65	64-65' bgs: Well-graded gravel (70% gravel, 10% silt, 20% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW	90	25/50 for 3"	0.5		
	65-65.5' bgs: Well-graded gravel (80% gravel, 10% silt, 10% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW					
70							
75	74-75' bgs: Well-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine to coarse gravel, fine to coarse sand, gray, wet, no odor	GW	100	50 for 6"	0.2		
80	79-79.5' bgs: Well-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine to coarse gravel, fine to coarse sand, gray, wet, no odor	GW	100	26/29/26	0.2		
	79.5-82.6' bgs: Poorly-graded sand (100% sand), fine to medium, gray, wet, no odor	SP	100	15/20/25	0.3		
	82.6-83.5' bgs: Silt (100% silt), gray, moist, no odor, low plasticity	ML	100	19/18/18	0.2		

Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 83.3-81.3

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673568.476 **Y:** 1149478.759

FARALLON *consulting*
975 5th Avenue Northwest
Issaquah, Washington 98027

Log of Boring: AS-4

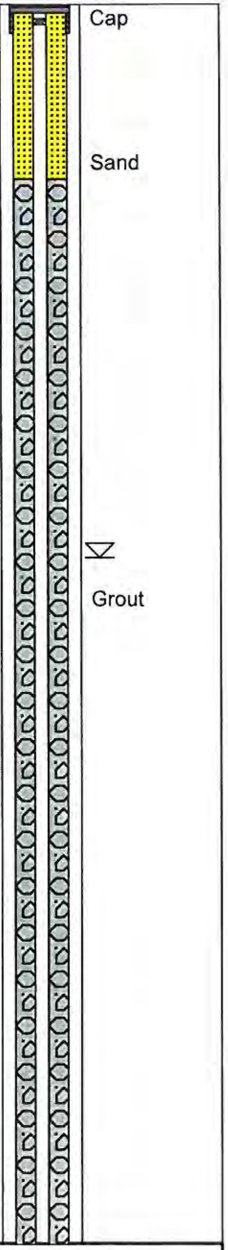
Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

Logged By: Jon Peterson

Date/Time Started:	1/19/10 @ 0800	**Sampler Type:**	18" Split spoon
Date/Time Completed:	1/19/10 @ 1700	**Drive Hammer (lbs.):**	300
Equipment:	CME-75	**Depth of Water ATD (ft bgs):**	19
Drilling Company:	Cascade Drilling	**Total Boring Depth (ft bgs):**	90.5
Drilling Foreman:	Andy Flagan	**Total Well Depth (ft bgs):**	90.5
Drilling Method:	Hollowstem Auger		

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-0.5' bgs: Asphalt								Cap
		0.5-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW							
5										Sand
10	☒	9-10.5' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine to coarse gravel, fine sand, brown, moist, no odor	GM	⊠	90	24/19/20	0.5			
15	☒	14-15.5' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine to coarse gravel, fine sand, brown, moist, no odor, asphalt debris, split spoon wet	GM	⊠	100	20/24/28	0.5			
20	☒	19-19.5' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine to coarse gravel, fine sand, brown, wet, no odor	GM		100	50 for 6"	0.7			▽ Grout
25	☒	24-25' bgs: Silty gravel with sand (60% gravel, 20% silt, 20% sand), fine gravel, fine sand, brown, wet, no odor	GM	⊠	100	50 for 6"	0.7			
30	☒	29-30' bgs: Silty gravel with sand (60% gravel, 20% silt, 20% sand), fine gravel, fine sand, brown, wet, no odor	GM	⊠	70	31/50 for 5"	0.6			
	☒	31.5-32.5' bgs: Well-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine to coarse gravel, mostly coarse sand, gray, wet, no odor	GW		100	17/50 for 3"	0.4			
35	☒	34-35' bgs: Poorly-graded gravel (80% gravel, 10% silt, 10% sand), fine gravel, fine sand, gray, wet, no odor	GP	⊠	100	50 for 3"	0.5			
	☒	37-38.5' bgs: Poorly-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine gravel, fine and coarse sand, gray, moist, no odor	GP	⊠	90	12/50 for 6"	0.3			
40										



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 90.5-88.5

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673642.080 **Y:** 1149359.512

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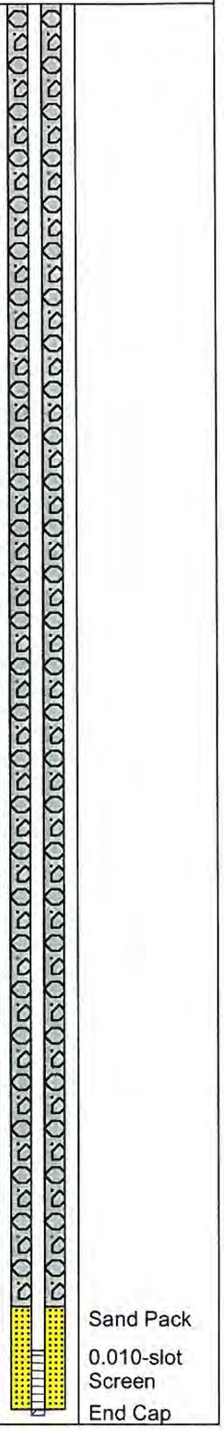
Issaquah, Washington 98027

Log of Boring: AS-4

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
45		44-45.5' bgs: Well-graded gravel (70% gravel, 10% silt, 20% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW		100	37/50 for 3"	0.5		
50		49-50.5' bgs: Poorly-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine gravel, coarse sand, gray, wet, no odor	GP		100	27/50 for 6"	0.7	AS4-011910-50 (GW Recon)	X
55		54-55.5' bgs: Poorly-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine gravel, coarse sand, gray, wet, no odor	GP		100	8/27/50 for 3"	0.7		
60		59-60' bgs: Poorly-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine gravel, coarse sand, gray, wet, no odor	GP		100	17/31/18	0.5		
65		64-65.5' bgs: Poorly-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine gravel, coarse sand, gray, wet, no odor	GP		90	19/20/27	0.4		
70		69-69.5' bgs: Poorly-graded sand (100%), coarse, gray, wet, no odor	SP		100	12/32/24	0.4		
		69.5-70.5' bgs: Poorly-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine gravel, fine to medium sand, gray, wet, no odor	GP						
75		74-75' bgs: Poorly-graded sand (100%), coarse, gray, wet, no odor	SP		70	12/21/20	0.5		
		76-77' bgs: Poorly-graded sand (100%), coarse, gray, wet, no odor	SP		100	12/50 for 6"	0.2		
		78-79.5' bgs: Poorly-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine gravel, coarse sand, gray, wet, no odor	GP		100	19/50 for 6"	0.1		
80		80-81.5' bgs: Poorly-graded sand (100%), coarse, gray, wet, no odor	SP		90	50 for 6"	0.6		
		81.5-83' bgs: Poorly-graded gravel with sand (50% gravel, 10% silt, 40% sand), fine gravel, coarse sand, gray, wet, no odor	GP		100	27/50 for 6"	0.7		
85		83-87.5' bgs: Poorly-graded sand (100%), coarse, gray, wet, no odor	SP		90	23/50 for 6"	0.2		
					80	18/50 for 6"	0.3		
					80	27/50 for 6"	0.4		
90		88.5-89.5' bgs: Poorly-graded sand (100%), coarse, gray, wet, no odor	SP		100	12/50 for 6"	0.4		
		89.5-90' bgs: Silt (90% silt, 10% sand), fine sand, gray, moist, no odor, low plasticity	ML						

Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 90.5-88.5

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673642.080 **Y:** 1149359.512

FARALLON consulting
975 5th Avenue Northwest
Issaquah, Washington 98027

Log of Boring: AS-5

Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

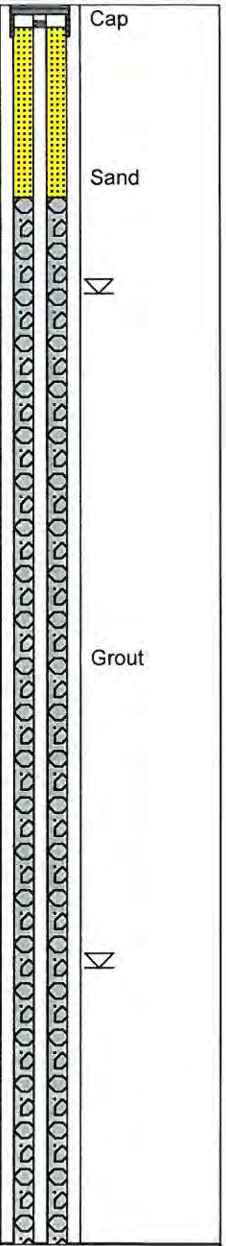
Logged By: Jon Peterson

Date/Time Started: 1/21/10 @ 0800
Date/Time Completed: 1/21/10 @ 1600
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 9, 30
Total Boring Depth (ft bgs): 82.5
Total Well Depth (ft bgs): 81.5

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		0-0.5' bgs: Asphalt							
		0.5-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, brown, moist, no odor	GW						
5									
10		9-10.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, brown, wet, no odor	GW		100	11/15/17	0.3		
15									
20		19-19.5' bgs: Well-graded sand with gravel (60% sand, 40% gravel), fine to coarse sand, fine gravel, gray, wet, no odor	SW		100	50 for 6"	0.3		
		19.5-20.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW						
25		24-25' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW		100	10/23/27	0.5		
		25-25.5' bgs: Silty gravel with sand (45% gravel, 40% silt, 15% sand), coarse gravel, fine sand, gray, moist, no odor	GM						
30		29-29.3' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, gray, moist, no odor	GW		100	50 for 5"	0.2		
35		34-35.5' bgs: Well-graded sand with gravel (60% sand, 40% gravel), fine to coarse sand, fine gravel, gray, wet, no odor	SW		100	18/32/33	0.3		

Boring/Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 81.5-79.5

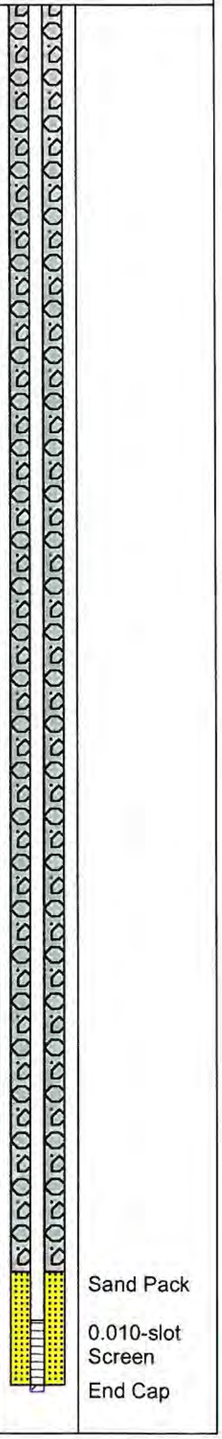
Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673690.351 **Y:** 1149481.651

Log of Boring: AS-5

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
40		39-39.3' bgs: Well-graded sand with gravel (60% sand, 40% gravel), fine to coarse sand, fine gravel, gray, wet, no odor	SW		100	28/48/20	0.1		
		39.3-40.5' bgs: Well-graded gravel with sand (75% gravel, 10% silt, 15% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW						
45		44-45' bgs: Well-graded gravel with sand (75% gravel, 10% silt, 15% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW		100	23/34/32	0.3		
50		49-50' bgs: Well-graded gravel with sand (75% gravel, 10% silt, 15% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW		100	50 for 6"	0.1		
55									
60		59-60.5' bgs: Poorly-graded gravel (90% gravel, 10% sand), fine gravel, coarse sand, gray, wet, no odor	GP		100	28/50 for 6"	0.3		
65									
70		69.-69.5' bgs: Poorly-graded sand (75% sand, 25% silt), coarse, gray, wet, no odor	SP		90	33/50 for 6"	0.5		
		69.5-70.5' bgs: Well-graded gravel (100% gravel), fine to coarse, gray, wet, no odor	GW						
75									
80		79-79.5' bgs: Well-graded sand (100% sand), fine to coarse, gray, wet, no odor	SW		100	15/29/30	0.2		
		79.5.-80.3' bgs: Poorly-graded sand (100% sand), fine to medium, gray, wet, organic decay	SP						
		80.3-80.5' bgs: Silt (100% silt), gray, moist, no odor, low plasticity	ML						

Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 81.5-79.5

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673690.351 **Y:** 1149481.651

FARALLON *consulting*
975 5th Avenue Northwest
Issaquah, Washington 98027

Log of Boring: AS-6

Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

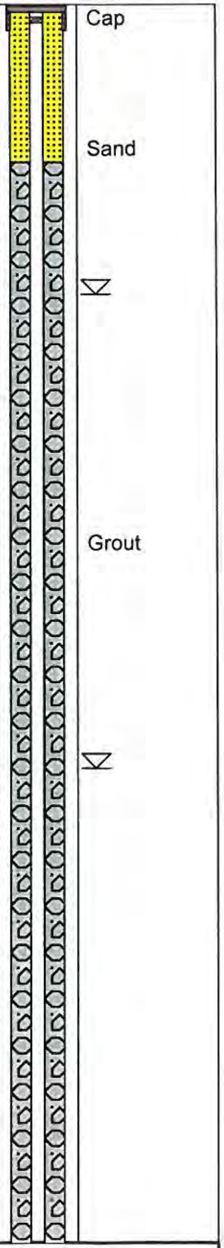
Logged By: Jon Peterson

Date/Time Started: 1/22/10 @ 0800
Date/Time Completed: 1/22/10 @ 1700
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 11, 29
Total Boring Depth (ft bgs): 93.5
Total Well Depth (ft bgs): 93.5

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0	0-3' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW					
5							
10	9-10.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW	70	10/11/17	0.1		
15							
20	19-19.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist to wet, no odor	GW	100	23/50 for 5"	0.2		
	19.5-20.5' bgs: Silty gravel with sand (45% gravel, 35% silt, 20% sand), fine to coarse gravel, fine to coarse sand, brown to gray, moist, no odor	GM					
25	24-25' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW	70	28/50 for 5"	0.1		
30	29-30.5' bgs: Well-graded sand and gravel (60% sand, 40% gravel, trace silt), fine to coarse sand and gravel, gray, wet, no odor	SW	90	28/50 for 6"	0.3		
35	34-35.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, medium to coarse sand, brown, wet, no odor	GW	90	24/50 for 6"	0.3		
40	39-39.5' bgs: Well-graded sand (100% sand), fine to coarse, brown, wet, no odor	SW	100	38/50 for 6"	0.1		
	39.5-40.5' bgs: Well-graded gravel with sand (75% gravel, 10% silt, 15% sand), fine to coarse gravel, coarse sand, brown, wet, no odor	GW					
45							

Boring/Well Construction Details



Well Construction Information

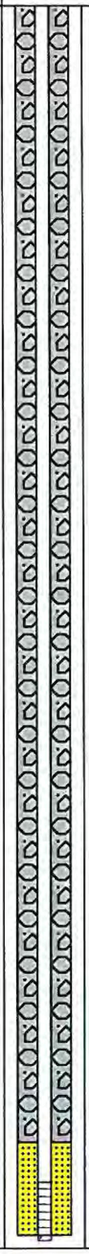
Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 93.5-91.5

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673778.173 Y: 1149351.721

Log of Boring:AS-6

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Well Construction Details
50		49-49.5' bgs: Well-graded gravel with sand (75% gravel, 10% silt, 15% sand), fine to coarse gravel, coarse sand, brown, wet, no odor	GW		90	17/28/30	0.2			
		49.5-49.7' bgs: Poorly-graded sand (100%), coarse, gray, wet, no odor	SP							
55		49.7-50.5' bgs: Well-graded gravel with sand (75% gravel, 10% silt, 15% sand), fine to coarse gravel, coarse sand, brown, wet, no odor	GW							
60		59-60.5' bgs: Well-graded gravel with sand (75% gravel, 10% silt, 15% sand), fine to coarse gravel, coarse sand, brown, wet, no odor	GW		100	18/22/21	0.2			
65										
70		70-70.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW		100	50 for 6"	0.1			
75										
80		79-80' bgs: Well-graded sand (100%), fine to coarse, brown, wet, transitions to gravelly sand (60% sand, 40% gravel)	SW		100	21/23/36	0.4			
		80-80.5' bgs: Poorly-graded sand (90% sand, 10% silt), coarse, gray, wet, organic decay, wood fragments	SP		100	12/18/36	0.3			
		80.5-83.5' bgs: Well-graded sand and gravel (60% sand, 40% gravel, trace silt), fine to coarse sand and gravel, gray, wet, no odor	SW		100	30/20/21	0.2			
85		85-86' bgs: Poorly-graded sand (100%), medium, gray, wet, no odor	SP		100	12/24/30	0.2			
		86-86.5' bgs: Well-graded sand and gravel (60% sand, 40% gravel, trace silt), fine to coarse sand and gravel, gray, wet, no odor	SW		100	27/50 for 5"	0.3			
90		87.5-92.3' bgs: Poorly-graded sand (90% sand, 10% gravel), fine sand, coarse gravel, gray, wet, no odor	SP		100	12/29/30	0.2			Sand Pack 0.010-slot Screen
		92.3-93' bgs: Silt (100% silt), gray, moist, no odor, low plasticity	ML		100	50 for 6"	0.1			End Cap



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 93.5-91.5
Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout
Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673778.173 **Y:** 1149351.721

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Log of Boring: AS-7

Page 1 of 2

Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington
Farallon PN: 188-002
Logged By: Jon Peterson

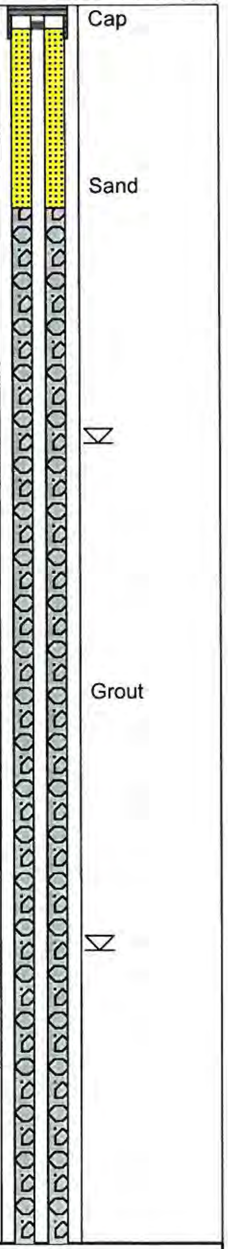
Date/Time Started: 1/26/10 @ 0800
Date/Time Completed: 1/26/10 @ 1400
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 13, 28
Total Boring Depth (ft bgs): 75.5
Total Well Depth (ft bgs): 74

Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0-0.5' bgs: Asphalt						
0.5-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, brown, moist, no odor	GW					
13-15' bgs: Silty gravel (50% gravel, 40% silt, 10% sand), fine to coarse gravel, fine sand, brown, wet, no odor	GM	70 100	31/50 for 3" 30/19/20	0.1 0.3		
15-15.5' bgs: Gravelly silt (40% silt, 40% gravel, 20% sand), fine gravel, fine to coarse sand, brown, moist, no odor	ML					
20-21' bgs: Gravelly silt (40% silt, 40% gravel, 20% sand), fine gravel, coarse sand, brown, moist, no odor	ML	100	50 for 6"	0.1		
21.5-22' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine and coarse gravel and sand, brown, moist to wet, no odor	GM	100	50 for 6"	0.2		
23-24' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine and coarse gravel and sand, brown, moist to wet, no odor	GM	100	50 for 5"	0.2		
24.5-26' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, brown, moist to wet, no odor	GW	100	50/40/41	0.3		
27-27.5' bgs: Silty gravel with sand (45% gravel, 25% silt, 30% sand), fine and coarse gravel and sand, brown, moist, no odor	GM	90	33/50 for 5"	0.2		
27.5-29' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, brown, wet, no odor	GW	80	36/50 for 6"	0.3		

Depth (feet bgs.): 0, 5, 10, 15, 20, 25, 30, 35

Boring/Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 74-71

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673797.940 Y: 1149511.414

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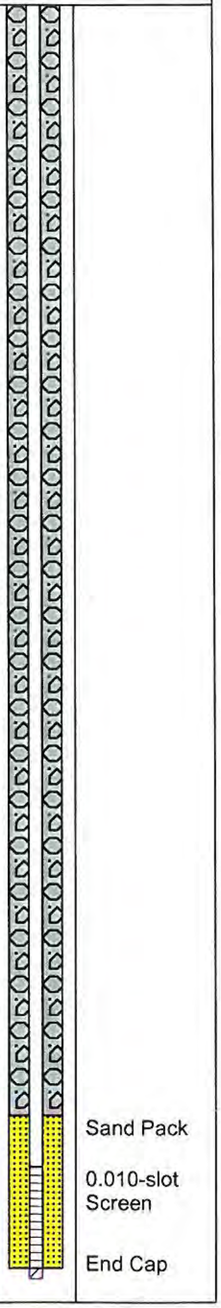
Log of Boring: AS-7

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
40		39-40' bgs: Well-graded gravel (85% gravel, 15% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW		100	11/15/19	0.3		
60		59-60' bgs: Well-graded sand (90% sand, 10% gravel), fine to coarse sand, fine and coarse gravel, gray, wet, no odor	SW		100	22/50 for 6"	0.5		
		Driller reports change to non-gravelly material	ML						
75		74-75.5' bgs: Silt (100% silt), gray, dry, no odor, moderate plasticity	ML		100	10/22/19	0.2		

Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 74-71

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673797.940 **Y:** 1149511.414

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Log of Boring: AS-8

Page 1 of 2

Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

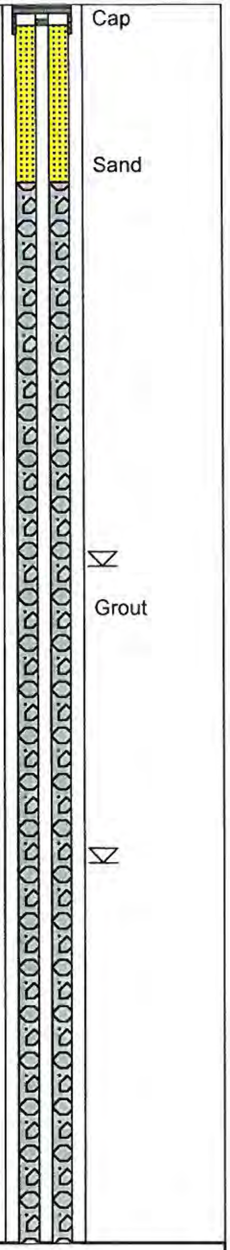
Logged By: Jon Peterson

Date/Time Started: 1/25/10 @ 0800
Date/Time Completed: 1/25/10 @ 1600
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 19, 29
Total Boring Depth (ft bgs): 85
Total Well Depth (ft bgs): 84

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		0-0.5' bgs: Asphalt							
		0.5-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW						
5									
10	X	9-10' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW		30	6/8/11	0.1		
15									
20	X	19-20' bgs: Well-graded sand with gravel (75% sand, 10% silt, 15% gravel), fine to coarse sand, fine gravel, brown, wet, no odor	SW		70	35/50 for 6"	0.3		
	X	20-20.3' bgs: Poorly-graded sand (100% sand), fine, gray, wet, no odor	SP		70	11/19/20	0.2		
25	X	21-22' bgs: Well-graded sand with gravel (60% sand, 10% silt, 30% gravel), fine to coarse sand, fine gravel, brown, wet, no odor	SW						
		24-25' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW		60	30/12/21	0.1		
30	X	29-30' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW		80	39/50 for 3"	0.1		
		30-30.5' bgs: Silty gravel (50% gravel, 35% silt, 15% sand), fine gravel, fine to medium sand, brown to white, moist, no odor	GM						
35	X	34-35' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW		90	26/50 for 6"	0.2		
40	X	39-40.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW		100	50/30/31	0.1		

Boring/Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 84-79

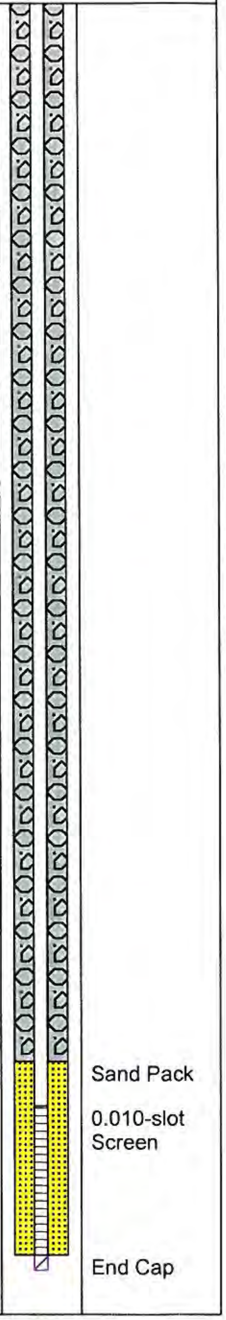
Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673889.862 **Y:** 1149427.722

Log of Boring: AS-8

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
45									
50	☒	49-50' bgs: Well-graded sand (90% sand, 10% gravel), fine to coarse sand, fine gravel, gray, wet, no odor	SW	▒	70	29/30/21	0.3		
55									
60	☒	59-60' bgs: Well-graded sand (90% sand, 10% gravel), fine to coarse sand, fine gravel, gray, wet, no odor	SW	▒	70	15/50 for 6"	0.2		
65									
70	☒	69-70.5' bgs: Well-graded sand with gravel (60% sand, 40% gravel), fine to coarse sand, fine to coarse gravel, gray, wet, no odor	SW	▒	100	28/50 for 6"	0.3		
75									
80	☒	79-80.5' bgs: Well-graded gravel with sand (70% gravel, 30% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW	○	100	50 for 6"	0.1		
85	☒	84-85.5' bgs: Silt (100% silt), gray, moist, no odor, low plasticity	ML	▥	100	18/24/25	0.1		

Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 84-79

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673889.862 **Y:** 1149427.722

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Log of Boring: AS-9

Page 1 of 2

Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

Logged By: Jon Peterson

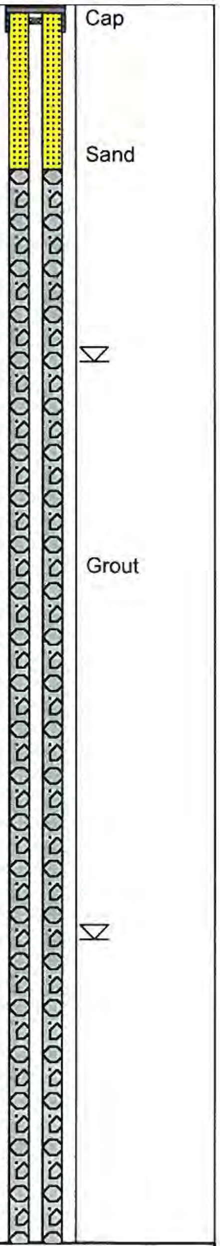
Date/Time Started: 1/27/10 @ 0800
Date/Time Completed: 1/27/10 @ 1700
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 13, 34
Total Boring Depth (ft bgs): 100
Total Well Depth (ft bgs): 97

Lithologic Description	USCS
0-3' bgs: Asphalt	
3-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW
14-14.5' bgs: Well-graded sand with gravel (60% sand, 40% gravel), fine to coarse sand and gravel, brown, moist to wet, no odor	SW
14.5-15.5' bgs: Silty gravel with sand (45% gravel, 40% silt, 15% sand), fine gravel, fine sand, gray, wet in gravelly pockets, no odor 15.5-17' bgs: moist, no odor	GM
20-21.5' bgs: Silty gravel with sand (45% gravel, 40% silt, 15% sand), fine gravel, fine sand, gray, moist, no odor	GM
21.5-22.5' bgs: Gravelly silt with sand (50% silt, 35% gravel, 15% sand), fine gravel, fine sand, gray, moist, no odor	ML
23-24' bgs: Silt (90% silt, 10% sand), coarse gravel, gray, dry, no odor, low plasticity	ML
24.5-27' bgs: Silty gravel with sand (45% gravel, 40% silt, 15% sand), fine gravel, fine sand, gray, moist, no odor 27.5-30' bgs: dry	GM
32-34' bgs: Silty gravel with sand (50% gravel, 30% silt, 20% sand), fine to coarse gravel, fine sand, gray, moist, no odor	GM
34-34.5' bgs: Well-graded gravel with sand (80% gravel, 20% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW

% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
100	8/15/22	0.2		
100	22/50 for 5"	0.4		
100	50 for 6"	0.2		
100	50 for 6"	0.1		
100	22/50 for 6"	0.2		
100	50 for 6"	0.1		
50	32/50 for 3"	0.1		
90	50 for 6"	0.1		
100	32/50 for 6"	0.2		
100	12/27/10	0.2		
100	32/50 for 6"	0.3		

Boring/Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 97-95

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673919.502 Y: 1149539.121

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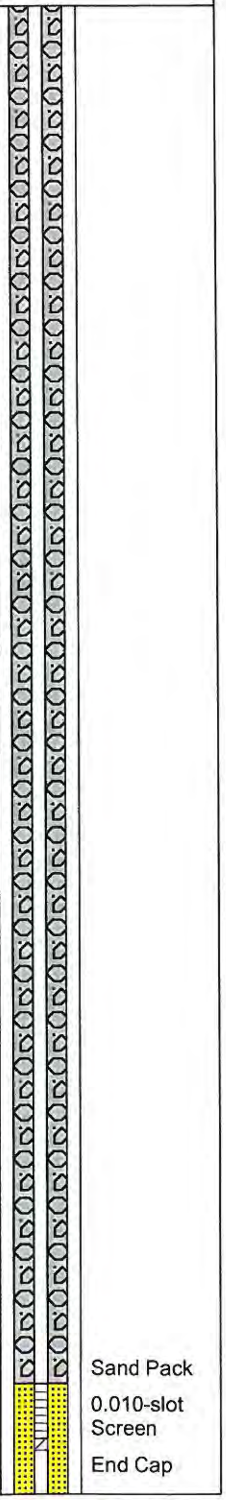
Log of Boring: AS-9

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
45									
50	☒	49-50.5' bgs: Silty gravel with sand (60% gravel, 20% silt, 20% sand), fine to coarse gravel, fine to coarse sand, gray, wet, no odor	GW		100	15/50 for 6"	0.2		
55									
60									
65									
70	☒	69-70.5' bgs: Well-graded gravel (90% gravel, 10% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW		90	17/19/22	0.3		
75	☒	74-75.5' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GM		100	40/30/41	0.2		
	☒	75.5-76.8' bgs: Well-graded sand and gravel (60% sand, 40% gravel), fine to coarse sand and gravel, gray, wet, no odor	SW		100	19/22/22	0.3		
	☒	76.8-77' bgs: Silty sand (80% sand, 20% silt), fine sand, gray, moist	SM		100	21/21/11	0.2		
	☒	77-79.3' bgs: Well-graded sand (100% sand), fine to coarse, gray, wet	SW		100	50/24/35	0.2		
80	☒	79.3-80' bgs: Poorly-graded sand (100% sand), fine, tan, wet, no odor	SP		100	50 for 6"	0.1		
		80-81.5' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GM						
85		82-100' bgs: Gravel, coarse, very dense, large cobbles (based on cuttings and rig response)	GM?						
90									
95									

Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 97-95

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673919.502 **Y:** 1149539.121

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Log of Boring: AS-10

Page 1 of 3

Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

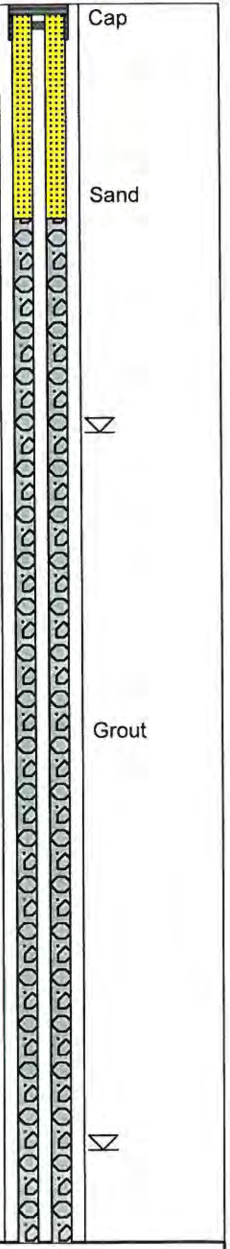
Logged By: Jon Peterson

Date/Time Started: 1/28/10 @ 0800
Date/Time Completed: 1/28/10 @ 1700
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 12, 32, 40
Total Boring Depth (ft bgs): 115
Total Well Depth (ft bgs): 115

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0	0-3' bgs: Asphalt						
5	3-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW					
10							
	13-13.3' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, wet, no odor	GW	100	22/50 for 3"	0.1		
15	13.3-16' bgs: Silty gravel with sand (45% gravel, 40% silt, 15% sand), fine gravel, fine sand, brown, moist, no odor	GM	100	19/25/26	0.2		
20	20-23' bgs: Silty gravel with sand (45% gravel, 40% silt, 15% sand), fine gravel, fine sand, gray, moist, no odor	GM	100	26/50 for 6"	0.1		
			100	50 for 6"	0.3		
25	26-27' bgs: Gravelly silt with sand (50% silt, 35% gravel, 15% sand), fine gravel, fine sand, gray, moist, no odor	ML	70	30/29/40	0.2		
30	29-29.2' bgs: Silty gravel with sand (45% gravel, 40% silt, 15% sand), fine gravel, fine sand, gray, moist, no odor	GM	10	50 for 6"	0.1		
	31-32' bgs: cuttings saturated						
	32.5-33.5' bgs: Silty gravel with sand (65% gravel, 25% silt, 10% sand), fine to coarse gravel, fine sand, gray, dry, no odor	GM	50	35/50 for 5"	0.1		
			50	36/50	0.2		

Boring/Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 115-113

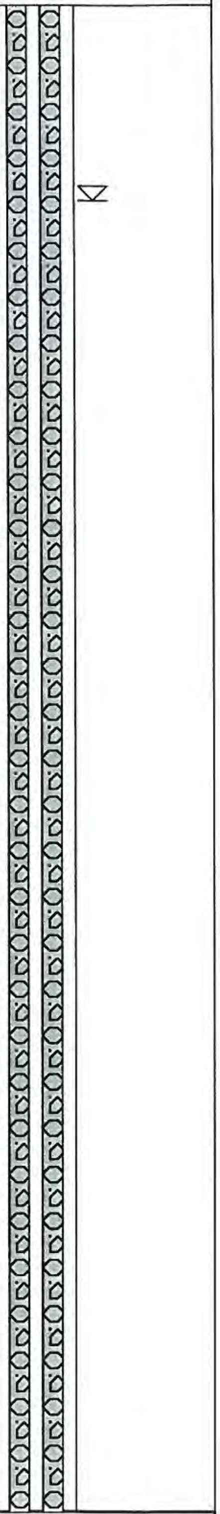
Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673982.157 Y: 1149604.493

Log of Boring:AS-10

Depth (feet bgs.)	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
35	34-37' bgs: Silty gravel with sand (45% gravel, 40% silt, 15% sand), fine gravel, fine sand, gray, moist, no odor	GM	90	for 3" 44/50 for 3"	0.2		
	37-38.5' bgs: Silty gravel with sand (65% gravel, 25% silt, 10% sand), fine to coarse gravel, fine sand, gray, dry, no odor	GM	100	36/50 for 6"	0.1		
40	40-41' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, gray, wet, no odor	GW	100	19/31/30	0.1		
45	44-45.5' bgs: Silty gravel with sand (65% gravel, 25% silt, 10% sand), fine to coarse gravel, fine sand, gray, wet, no odor	GM	100	39/40/50	0.2		
50	49-50.5' bgs: Well-graded gravel (90% gravel, 10% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW	100	38/21/20	0.2	AS10-012810-49 (GW Recon)	X
55 60 65 70 75	50.5-79' bgs: Gravel, coarse, very dense, large cobbles (based on cuttings and rig response)	GW					

Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 115-113

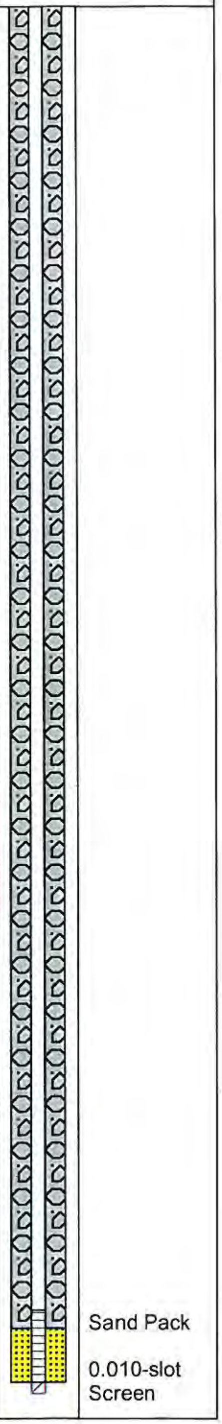
Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673982.157 **Y:** 1149604.493

Log of Boring: AS-10

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
80	☒	79-80.3' bgs: Well-graded sand and gravel (70% sand, 30% gravel), fine to coarse sand and gravel, gray, wet, no odor	SW	70	27/50 for 6"	0.1		
85								
90	☒	89-90.5' bgs: Well-graded gravel (90% gravel, 10% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW	100	27/28/30	0.2		
95		94-99' bgs: Possible gravelly sand	SP					
100		99-99.3' bgs: Poorly-graded gravel with sand (80% gravel, 20% sand), fine gravel, coarse sand, gray, wet, no odor	GP	30	28/50 for 3"	0.1		
105	☒	104-105' bgs: Poorly-graded gravel with sand (80% gravel, 20% sand), fine gravel, coarse sand, gray, wet, no odor	GP	100	35/50 for 6"	0.2		
110	☒	109-110' bgs: Poorly-graded gravel with sand (80% gravel, 20% sand), fine gravel, coarse sand, gray, wet, no odor (poor recovery)	GP	05	30/19/20	0.1		
115	☒	114-115' bgs: Poorly-graded gravel with sand (80% gravel, 20% sand), fine gravel, coarse sand, gray, wet, no odor	GP	75	19/24/50	0.1		
		115-115.2' bgs: Well-graded gravel with sand (80% gravel, 20% sand), fine to coarse gravel, coarse sand, gray, wet, no odor	GW					

Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 2"
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 115-113

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673982.157 **Y:** 1149604.493

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Log of Boring: SVE-1

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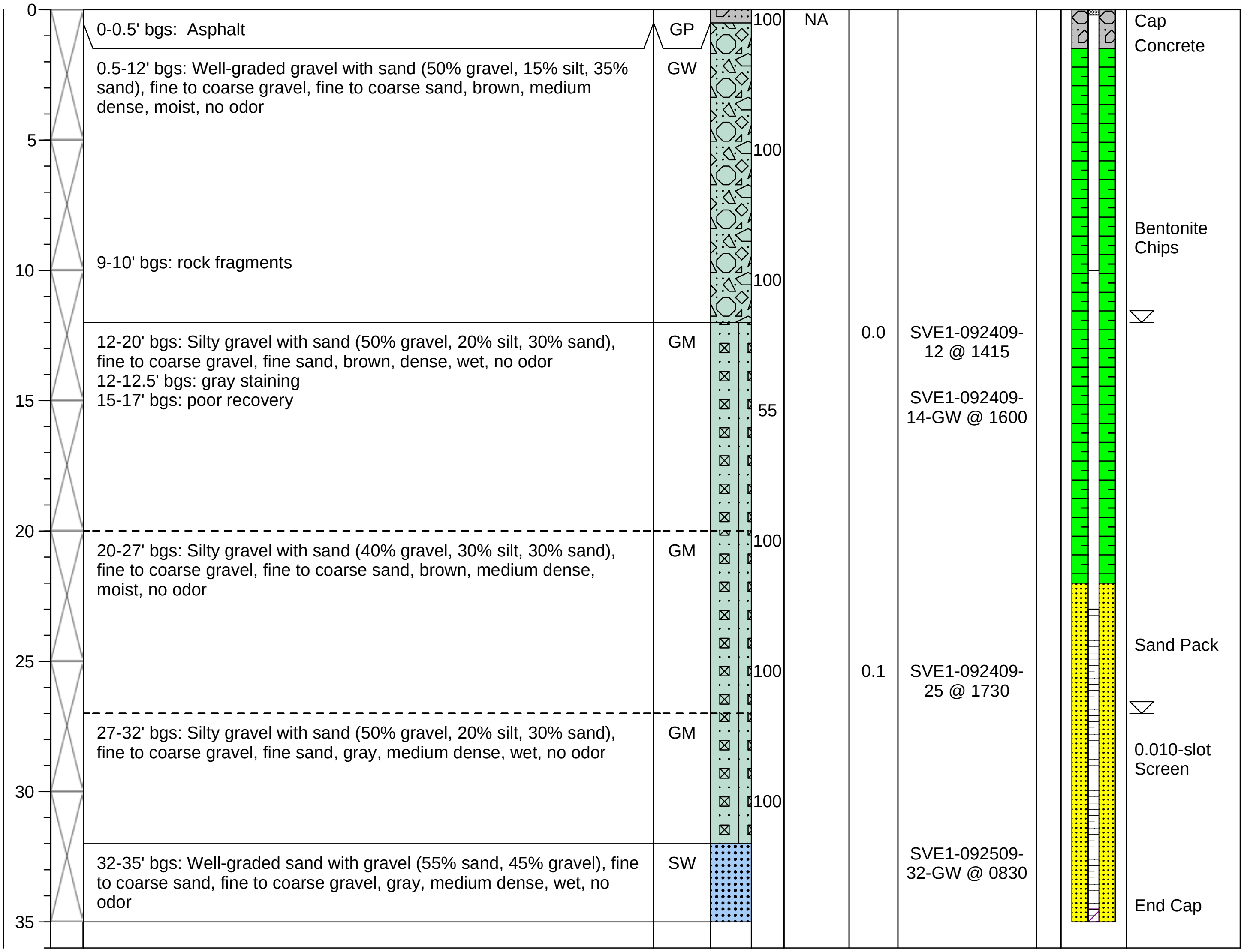
Client: Woodworth & Company, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-001

Logged By: Jon Peterson

Date/Time Started:	9/24/09 @ 1400	**Sampler Type:**	Sonic core sampler
Date/Time Completed:	9/25/09 @ 1000	**Drive Hammer (lbs):**	Auto
Equipment:	LAR- Sonic	**Depth of Water (ft bgs):**	12, 27
Drilling Company:	Boart Longyear	**Total Boring Depth (ft bgs):**	35
Drilling Foreman:	Jeremy Thompson	**Total Well Depth (ft bgs):**	35
Drilling Method:	Sonic		



Depth (feet bgs)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-0.5' bgs: Asphalt	GP		100	NA				Cap Concrete
5		0.5-12' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, medium dense, moist, no odor	GW		100					
10		9-10' bgs: rock fragments			100					Bentonite Chips
		12-20' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine to coarse gravel, fine sand, brown, dense, wet, no odor 12-12.5' bgs: gray staining 15-17' bgs: poor recovery	GM				0.0	SVE1-092409-12 @ 1415		▽
15					55			SVE1-092409-14-GW @ 1600		
20		20-27' bgs: Silty gravel with sand (40% gravel, 30% silt, 30% sand), fine to coarse gravel, fine to coarse sand, brown, medium dense, moist, no odor	GM		100					Sand Pack
25					100		0.1	SVE1-092409-25 @ 1730		▽
		27-32' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine to coarse gravel, fine sand, gray, medium dense, wet, no odor	GM							0.010-slot Screen
30					100					
		32-35' bgs: Well-graded sand with gravel (55% sand, 45% gravel), fine to coarse sand, fine to coarse gravel, gray, medium dense, wet, no odor	SW					SVE1-092509-32-GW @ 0830		End Cap
35										

Well Construction Information

Monument Type:	12" flush-mount	**Filter Pack:**	2/12 sand	**Ground Surface Elevation (ft msl):**	281.0
Casing Diameter (in):	4"	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft msl):**	279.89
Screen Slot Size (in):	0.010	**Annular Seal:**	Bentonite chips	**Surveyed Location:**	**X:**673670.768
Screened Interval (ft bgs):	35-23	**Boring Abandonment:**	NA		**Y:**1149448.46

Log of Boring: SVE-2

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Client: Woodworth & Company, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

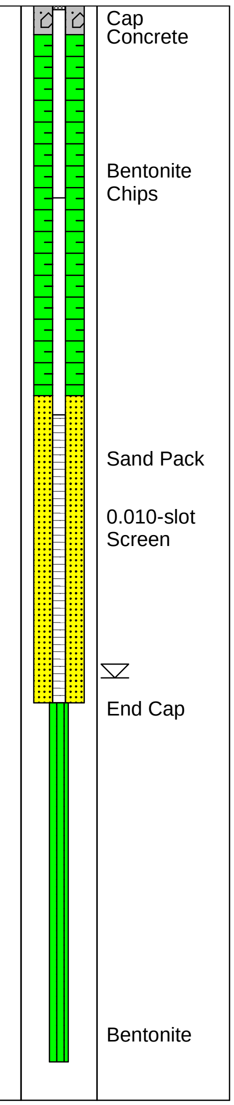
Farallon PN: 188-001

Logged By: Jon Peterson

Date/Time Started:	9/22/09 @ 0730	**Sampler Type:**	Sonic core sampler
Date/Time Completed:	9/22/09 @ 1500	**Drive Hammer (lbs):**	Auto
Equipment:	LAR- Sonic	**Depth of Water (ft bgs):**	35
Drilling Company:	Boart Longyear	**Total Boring Depth (ft bgs):**	55
Drilling Foreman:	Jeremy Thompson	**Total Well Depth (ft bgs):**	36.3
Drilling Method:	Sonic		

Depth (feet bgs)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts	PID (ppmv)	Sample ID	Sample Analyzed
0		0-0.5' bgs: Asphalt	GP		100	NA			
5		0.5-10.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, brown, medium dense, moist, no odor	GW		100		2.0	SVE2-092209-10 @ 0945	
10		10.5-11.5' bgs: Silty gravel with sand (50% gravel, 35% silt, 15% sand), fine to coarse gravel, fine sand, brown, medium dense, moist, no odor	GM		100		1.1	SVE2-092209-10.5 @ 1000	
15		11.5-23' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, brown, medium dense, moist, no odor	GW		100 100		1.0		
20		23-23.5' bgs: Silty gravel with sand (50% gravel, 35% silt, 15% sand), fine to coarse gravel, fine sand, brown with gray to white staining, medium dense, moist, faint odor	GM				18.1	SVE2-092209-23 @ 1030	
25		23.5-30' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, brown, medium dense, moist, no odor	GW		100				
30		30-33' bgs: Silty gravel with sand (50% gravel, 35% silt, 15% sand), fine to coarse gravel, fine sand, brown with white staining, medium dense, moist, faint odor	GM		100				
35		33-35' bgs: Poorly-graded sand, fine to medium, brown, dense, wet below 35' bgs, faint odor	SP						
		35-37' bgs: no recovery			65		14.0	SVE2-092209-35 @ 1100	
40		37-43' bgs: Silty gravel with sand (50% gravel, 35% silt, 15% sand), fine to coarse gravel, fine sand, brown with gray to white staining, medium dense, wet, faint odor	GM		100				
45 50 55		43-55' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, coarse sand, brown, medium dense, wet, no odor	GW		100 100		4.4	SVE2-092209-55 @ 1130 SVE2-092209-55-GW @ 1200	

Boring/Well Construction Details



Well Construction Information

Monument Type:	12" flush-mount	**Filter Pack:**	2/12 sand	**Ground Surface Elevation (ft msl):**	280.57
Casing Diameter (in):	4	**Surface Seal:**	Asphalt	**Top of Casing Elevation (ft msl):**	280.12
Screen Slot Size (in):	0.010	**Annular Seal:**	Bentonite chips	**Surveyed Location:**	**X:**673724.71
Screened Interval (ft bgs):	36.3-21.3	**Boring Abandonment:**	NA		**Y:**1149419.506

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Log of Boring: SVE-3

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Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

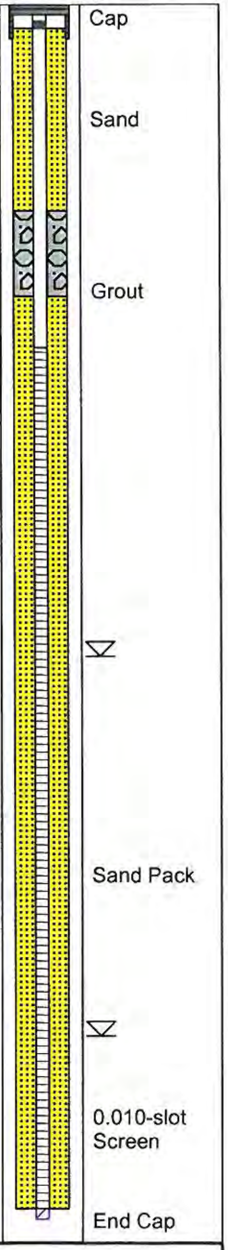
Farallon PN: 188-002

Logged By: Jon Peterson

Date/Time Started: 2/1/10 @ 0800
Date/Time Completed: 2/1/10 @ 1200
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 19, 30
Total Boring Depth (ft bgs): 35
Total Well Depth (ft bgs): 35

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW	▨						
5		Note: For lithologic description of soil from depths below 5 ft bgs refer to the boring log for well AS-2. AS-2 is located 3 feet north of well SVE-3								
10										
15										
20										
25										
30										
35										



Well Construction Information

Monument Type: 12" Flush-mount (Morrison)
Casing Diameter (inches): 4
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 35-10

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673536.018 **Y:** 1149413.068

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Log of Boring: SVE-4

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Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

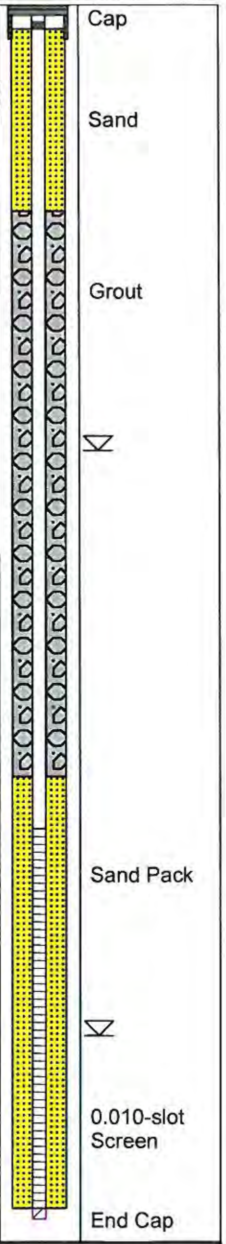
Logged By: Jon Peterson

Date/Time Started: 2/4/10 @ 0800
Date/Time Completed: 2/4/10 @ 1400
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 13, 30
Total Boring Depth (ft bgs): 35
Total Well Depth (ft bgs): 35

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		0-0.5' bgs: Asphalt							
		0.5-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW						
5		Note: For supplemental lithologic description of soil from depths below 5 feet bgs refer to the boring log for well AS-3. AS-3 is located 3 feet east of SVE-4							
10									
15	☒	14-15' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine to coarse gravel and sand, brown, wet, no odor	GM	☒	70	50 for 6"	0.2		
20									
	☒	21-22' bgs: Silty gravel with sand (40% gravel, 30% silt, 30% sand), fine to coarse gravel, fine sand, gray, wet, no odor	GM	☒	100	43/50 for 6"	0.1		
		22-22.5' bgs: Sandy silt (60% silt, 30% sand, 10% sand), fine to medium sand, fine gravel, gray, moist, no odor, moderate plasticity	ML						
25									
	☒	26-27' bgs: Silty gravel with sand (40% gravel, 30% silt, 30% sand), fine to coarse gravel, fine sand, gray, moist, no odor	GM	☒	100	50 for 6"	0.2		
30									
35									

Boring/Well Construction Details



Well Construction Information

Monument Type: 12" Flush-mount (Morrison)
Casing Diameter (inches): 4
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 35-24

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673565.877 Y: 1149478.658

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Log of Boring: SVE-5

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Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

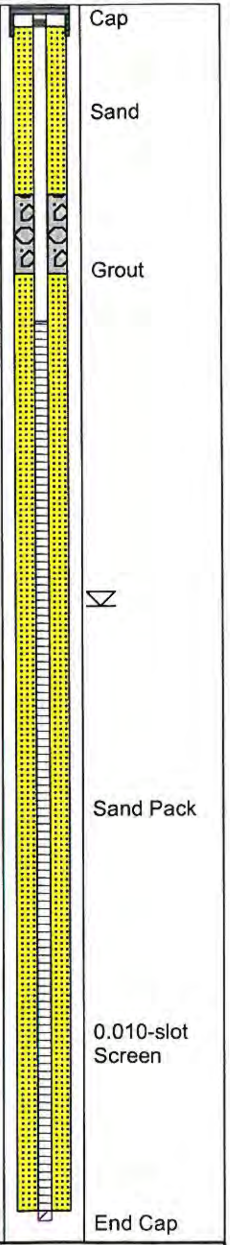
Farallon PN: 188-002

Logged By: Jon Peterson

Date/Time Started: 2/1/10 @ 1200
Date/Time Completed: 2/1/10 @ 1600
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 19
Total Boring Depth (ft bgs): 38
Total Well Depth (ft bgs): 38

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-0.5' bgs: Asphalt								
		0.5-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW							
5		Note: For lithologic description of soil from depths below 5 ft bgs refer to the boring log for well AS-4. AS-4 is located 3 feet south of well SVE-3								



Well Construction Information

Monument Type: 12" Flush-mount (Morrison)
Casing Diameter (inches): 4
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 38-10

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673645.550 **Y:** 1149361.919

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Log of Boring: SVE-6

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Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

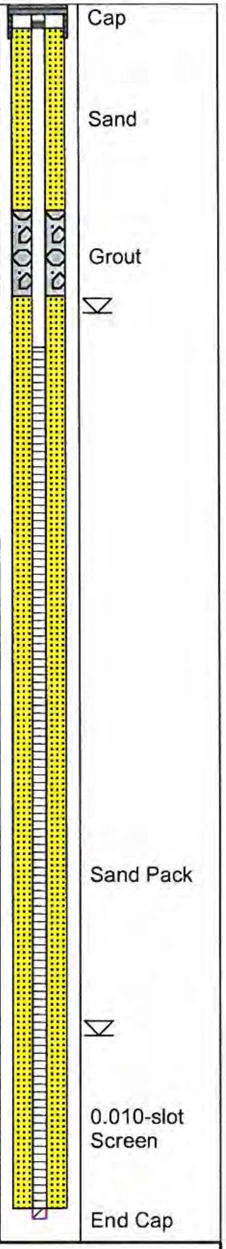
Logged By: Jon Peterson

Date/Time Started: 2/2/10 @ 0800
Date/Time Completed: 2/2/10 @ 1200
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 9, 30
Total Boring Depth (ft bgs): 35
Total Well Depth (ft bgs): 35

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		0-0.5' bgs: Asphalt							
		0.5-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW						
5		Note: For lithologic description of soil from depths below 5 ft bgs refer to the boring log for well AS-5. AS-5 is located 3 feet east of well SVE-6							
10									
15									
20									
25									
30									
35									

Boring/Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 4
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 35-10

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673688.234 Y: 1149483.531

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Log of Boring: SVE-7

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Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

Logged By: Jon Peterson

Date/Time Started: 2/4/10 @ 1500
Date/Time Completed: 2/5/10 @ 1300
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 11, 29
Total Boring Depth (ft bgs): 35
Total Well Depth (ft bgs): 35

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW							Cap
5		Note: For supplemental lithologic description of soil from depths below 5 feet bgs refer to the boring log for well AS-6. AS-6 is located 3 feet southeast of SVE-7								Sand Grout
10										▽ Sand Pack
	☒	13-14.5' bgs: Silty gravel with sand (50% gravel, 25% silt, 25% sand), fine to coarse gravel, fine sand, tan, moist, no odor	GM		90	35/50 for 6"	0.1			
15										
	☒	16-17.5' bgs: Silty gravel with sand (50% gravel, 25% silt, 25% sand), fine to coarse gravel, fine sand, brown, moist, no odor	GM		100	40/40/30	0.3			
20										
	☒	22-23.5' bgs: Silty gravel with sand (40% gravel, 20% silt, 40% sand), fine to coarse gravel, fine sand, brown, moist, no odor	GM		100	19/29/37	0.3			
25										▽ 0.010-slot Screen
30										
35										End Cap

Well Construction Information

Monument Type: 12" Flush-mount (Morrison)
Casing Diameter (inches): 4
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 35-13

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673781.488 Y: 1149353.726

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Log of Boring: SVE-8

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Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

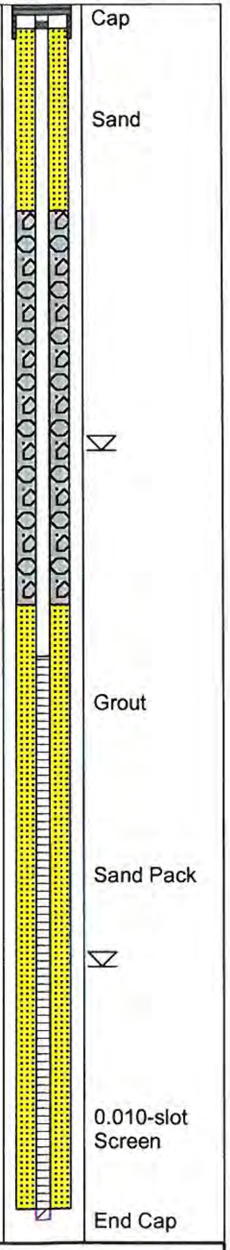
Logged By: Jon Peterson

Date/Time Started: 2/2/10 @ 1200
Date/Time Completed: 2/2/10 @ 1600
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 13, 28
Total Boring Depth (ft bgs): 35
Total Well Depth (ft bgs): 35

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		0-0.5' bgs: Asphalt							
		0.5-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW						
5		Note: For lithologic description of soil from depths below 5 ft bgs refer to the boring log for well AS-7. AS-7 is located 3 feet north of well SVE-8							

Boring/Well Construction Details



Well Construction Information

Monument Type: 14" Flush-mount (heavy duty)
Casing Diameter (inches): 4
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 35-19

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673792.904 Y: 1149514.847

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Log of Boring: SVE-9

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Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

Logged By: Jon Peterson

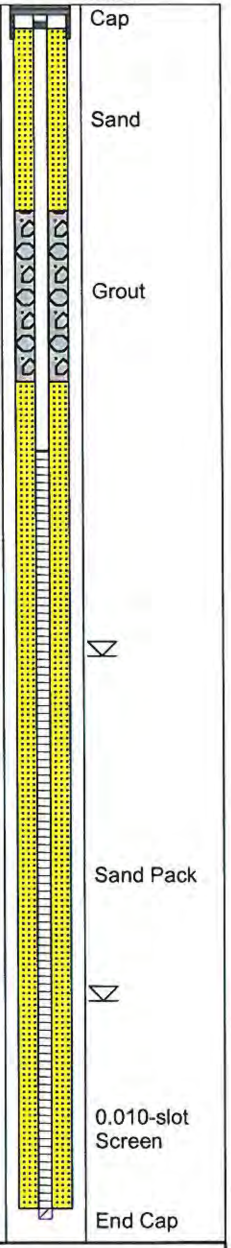
Date/Time Started: 1/25/10 @ 1200
Date/Time Completed: 1/25/10 @ 1600
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 19, 29
Total Boring Depth (ft bgs): 35
Total Well Depth (ft bgs): 35

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		0-0.5' bgs: Asphalt							
		0.5-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW						
5		Note: For supplemental lithologic description of soil from depths below 5 feet bgs refer to the boring log for well AS-8. AS-8 is located 3 feet east of SVE-9							
	☒	27-28' bgs: Rock fragments, split spoon is dry	GP		100	50 for 2"	0.1		
	☒	31-32.5' bgs: Silty gravel with sand (50% gravel, 20% silt, 30% sand), fine to coarse gravel, fine to medium sand, brown, moist, no odor	GM		30	23/50 for 2"	0.1		

Depth scale: 0, 5, 10, 15, 20, 25, 30, 35

Boring/Well Construction Details



Well Construction Information

Monument Type: 12" Flush-mount (Morrison)
Casing Diameter (inches): 4
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 35-13

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673886.461 Y: 1149427.738

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Log of Boring: SVE-10

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Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

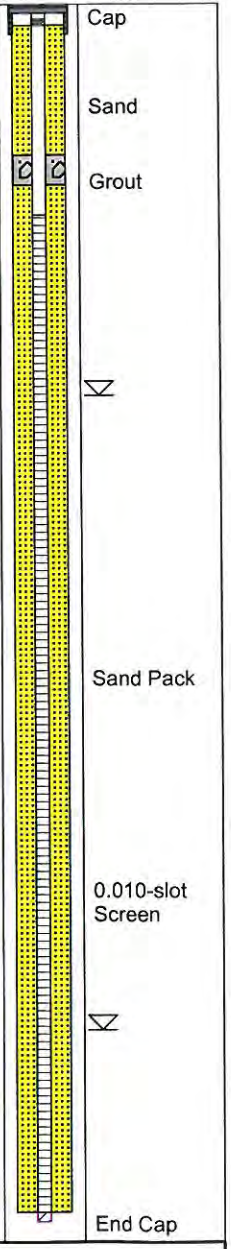
Farallon PN: 188-002

Logged By: Jon Peterson

Date/Time Started: 2/3/10 @ 0800
Date/Time Completed: 2/3/10 @ 1600
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 13, 34
Total Boring Depth (ft bgs): 40
Total Well Depth (ft bgs): 40

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-3' bgs: Asphalt								
		3-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW							
5		Note: For lithologic description of soil from depths below 5 ft bgs refer to the boring log for well AS-9. AS-9 is located 3 feet northeast of well SVE-10								
10										
15										
20										
25										
30										
35										
40										



Well Construction Information

Monument Type: 14" Flush-mount (heavy duty)
Casing Diameter (inches): 4
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 40-7

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: **X:** 673917.733 **Y:** 1149546.009

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Log of Boring: SVE-11

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Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

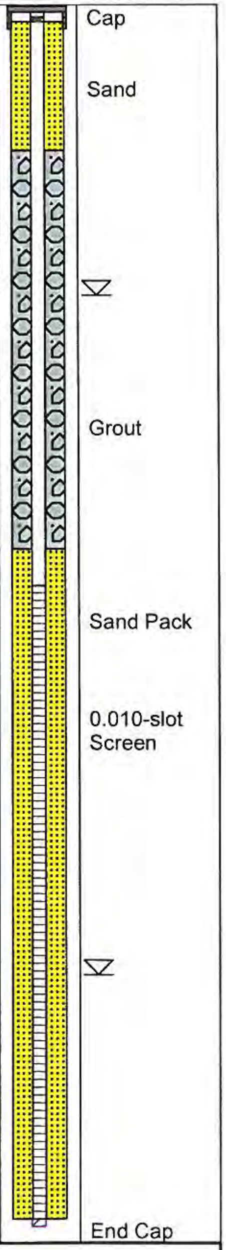
Logged By: Jon Peterson

Date/Time Started: 2/5/10 @ 0800
Date/Time Completed: 2/5/10 @ 1200
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 12, 40
Total Boring Depth (ft bgs): 50
Total Well Depth (ft bgs): 50

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		0-3' bgs: Asphalt							
		3-5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor	GW						
5		Note: For lithologic description of soil from depths below 5 ft bgs refer to the boring log for well AS-10. AS-10 is located 3 feet east of well SVE-11							
10									
15									
20									
25									
30									
35									
40									
45									
50									

Boring/Well Construction Details



Well Construction Information

Monument Type: 14" Flush-mount (heavy duty)
Casing Diameter (inches): 4
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 50-24

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673978.888 Y: 1149607.078

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Log of Boring: SVE-12

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Client: Woodworth Capital, Inc
Project: Woodworth Lakeview Facility
Location: Lakewood, Washington

Farallon PN: 188-002

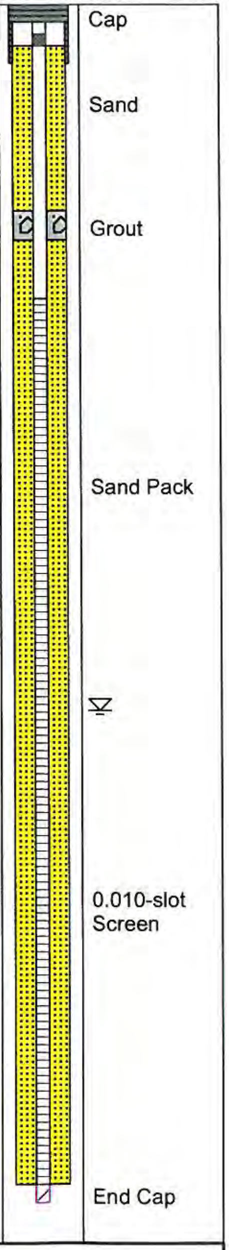
Logged By: Ken Scott

Date/Time Started: 2/5/10 @ 1300
Date/Time Completed: 2/5/10 @ 1410
Equipment: CME-75
Drilling Company: Cascade Drilling
Drilling Foreman: Andy Flagan
Drilling Method: Hollowstem Auger

Sampler Type: 18" Split spoon
Drive Hammer (lbs.): 300
Depth of Water ATD (ft bgs): 12.17
Total Boring Depth (ft bgs): 20.5
Total Well Depth (ft bgs): 20

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		0-5.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine to medium sand, brown, moist, no odor	GW						
5					80	15/20/20	0.2	SVE-12-5	X
10		9-10.5' bgs: Well-graded gravel with sand (50% gravel, 15% silt, 35% sand), fine to coarse gravel, fine sand, brown, moist, no odor	GW		90	15/50 for 6"	0.3		
15		14-15.5' bgs: Silty gravel with sand (50% gravel, 30% silt, 20% sand), fine to coarse gravel, fine sand, brown, moist, no odor	GM		70	50 for 6"	0.1		
20		19-20.5' bgs: Silty gravel with sand (40% gravel, 30% silt, 30% sand), coarse gravel, fine sand, brown, moist, no odor	GM		30	50 for 6"	0.1		

Boring/Well Construction Details



Well Construction Information

Monument Type: 8" Flush-mount (Sherwood)
Casing Diameter (inches): 4
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 20-5

Filter Pack: 2/12 sand
Surface Seal: Asphalt
Annular Seal: Bentonite grout

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):
Boring Abandonment: NA
Surveyed Location: X: 673560.788 Y: 1149445.393

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Log of Test Pit: TP-1

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 02/03/09 0945
Date/Time Completed: 02/03/09 1015
Equipment: Deere 450C LC
Excavating Company: Woodworth & Co., Inc.
Excavating Foreman: Reg
Excavating Method: Backhoe

Sampler Type: 22" bucket
Depth of Water (ft bgs): 11'
Total Excavation Depth (ft bgs): 15

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		Silty GRAVEL with sand (60% gravel, 25% sand, 15% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, concrete debris with rebar. Minor amounts of waste material such as shoe, glass fragments, metal, brick, and plastic sheeting.	GM						
							0.1		
							0.2	TP1-020309-2 0905	
							0.2		
5									
							0.1	TP1-020309-6 1000	X
							0.1		
10							0.3	TP1-020309-10 1010	
		Water at approximately 11 feet.							
							0.2		
		Surface topography, road limit the depth of excavation to a maximum of 15 feet below ground surface.							
15							0.1		

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Log of Test Pit: TP-2

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 02/03/09 1022
Date/Time Completed: 02/03/09 1050
Equipment: Deere 450C LC
Excavating Company: Woodworth & Co., Inc.
Excavating Foreman: Reg
Excavating Method: Backhoe

Sampler Type: 22" bucket
Depth of Water (ft bgs): NE
Total Excavation Depth (ft bgs): 15

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		Concrete debris.	CO						
		Silty GRAVEL with sand (60% gravel, 25% silt, 15% sand), fine to coarse gravel, fine to coarse sand, dark brown, moist, no odor until 3 feet then musty odor, brick fragments, wood fragments.	GM				0.3		
		Sandy SILT (75% silt, 25% sand), fine sand, gray-brown, moist, no odor, wood fragments.	ML				0.3	TP2-020309-3 1030	
5							0.3		
		Silty GRAVEL with sand (60% gravel, 25% sand, 15% silt), fine to coarse gravel, fine to coarse sand, brown, moist, rotting-wood-like odor, brick fragments, wood fragments.	GM				0.5	TP2-020309-6 1035	X
		Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), brown, moist, no odor, brick fragments, wood fragments, concrete debris, and asphalt. Minor amounts of waste material such as a traffic cone, plastic sheeting, plastic six-pack ring, and bottle caps.	GP				0.3		
							0.1		
10									
							0.2		
							0.2		
15							0.1	TP2-020309-15 1040	

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Log of Test Pit: TP-3

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 02/03/09 1055
Date/Time Completed: 02/03/09 1115
Equipment: Deere 450C LC
Excavating Company: Woodworth & Co., Inc.
Excavating Foreman: Reg
Excavating Method: Backhoe

Sampler Type: 22" bucket
Depth of Water (ft bgs): NE
Total Excavation Depth (ft bgs): 20

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		Silty GRAVEL with sand (60% gravel, 25% sand, 15% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, organics, brick fragments, concrete debris. Minor amounts of waste material such as a piece of high pressure hosing and a tin can.	GM						
							0.1		
							0.2		
							0.2	TP3-020309-3 1100	X
5							0.3		
							0.2		
							0.1		
10									
		Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, black, moist, no odor.	GP				0.2	TP3-020309-11 1105	
							0.3		
15							0.2		
							0.1		
							0.2		
20							0.2	TP3-020309-20 1110	

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Log of Test Pit: TP-4

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 02/03/09 1120
Date/Time Completed: 02/03/09 1145
Equipment: Deere 450C LC
Excavating Company: Woodworth & Co., Inc.
Excavating Foreman: Reg
Excavating Method: Backhoe

Sampler Type: 22" bucket
Depth of Water (ft bgs): 16
Total Excavation Depth (ft bgs): 16

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		Concrete fill (80-90% concrete with rebar), some sand mixed in	CO						
							0.0		
							0.1		
		Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, concrete with rebar, brick fragments, wood fragments, with a minor amount of waste material such as chain link fencing, metal post, yellow traffic paint chips, wire mesh, plastic sheeting, wood stakes, and metal duct.	GP				0.2	TP4-020309-4 1125	
5									
							0.2		
							0.1	TP4-020309-7 1130	X
							0.2		
10									
							0.1		
							0.2		
15							0.1		
							0.1	TP4-020309-16 1135	

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Log of Test Pit: TP-5

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 02/03/09 1240
Date/Time Completed: 02/03/09 1310
Equipment: Deere 450C LC
Excavating Company: Woodworth & Co., Inc.
Excavating Foreman: Reg
Excavating Method: Backhoe

Sampler Type: 22" bucket
Depth of Water (ft bgs): NE
Total Excavation Depth (ft bgs): 20

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, grass, roots. No fill material observed.	GP						
							0.0		
							0.1		
5							0.1		
							0.7	TP5-020309-7 1250	X
		3" band of sandy SILT (60% silt, 40% sand), fine sand, gray, moist, no odor.					0.3		
10							0.2	TP5-020309-10 1255	
							0.2		
							0.1		
15									
		Increased moisture in soil, no water observed in excavation.							
							0.0		
							0.2		
20							0.1	TP5-020309-20 1300	

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Log of Test Pit: TP-6

Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 02/03/09 1315
Date/Time Completed: 02/03/09 1335
Equipment: Deere 450C LC
Excavating Company: Woodworth & Co., Inc.
Excavating Foreman: Reg
Excavating Method: Backhoe

Sampler Type: 22" bucket
Depth of Water (ft bgs): NE
Total Excavation Depth (ft bgs): 16

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, dark brown, moist, no odor.	GP						
							0.2		
							0.1		
5		Sandy SILT (60% silt, 40% sand), fine sand, gray-green, moist, musty odor.	ML				0.3	TP6-020309-5 1316	
							0.3		
10		Silty GRAVEL with sand (60% gravel, 25% sand, 15% silt), fine to coarse gravel, fine to coarse sand, gray-green, increasingly moist, musty odor. Interbedded with sandy SILT layer as described above.	GM				0.2	TP6-020309-10 1318	
							0.1		
		White, soft, flaky material observed in single location, approximately 1-2 square inches of material. Sample at 14 feet includes material.					0.1	TP6-020309-14 1323	X
15		Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor. Significant sloughing in excavation, material may not be from this depth.	GP						
							0.1	TP6-020309-16 1325	

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Log of Test Pit: TP-7

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA
Farallon PN: 188-001
Logged By: D. Clement

Date/Time Started: 02/03/09 1340
Date/Time Completed: 02/03/09 1400
Equipment: Deere 450C LC
Excavating Company: Woodworth & Co., Inc.
Excavating Foreman: Reg
Excavating Method: Backhoe
Sampler Type: 22" bucket
Depth of Water (ft bgs): Small seep at 5'
Total Excavation Depth (ft bgs): 18

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor.	GP						
							0.1		
							0.3		
5							0.1		
		Groundwater seep at 5 feet below ground surface on east sidewall of excavation, no water observed along other sidewalls.							
							0.2	TP7-020309-7 1345	
		Concrete, brick, and steel fragments							
							0.2		
10		Silty GRAVEL with sand (60% gravel, 25% sand, 15% silt), fine to coarse gravel, fine to coarse sand, green-gray, moist, musty odor, concrete, brick, and steel fragments.	GM				0.2	TP7-020309-10 1350	X
		Silty GRAVEL with sand (60% gravel, 25% silt, 15% sand), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, concrete fragments.	GM				0.3	TP7-020309-12 1355	
							0.2		
15		Silty GRAVEL with sand (60% gravel, 25% silt, 15% sand), fine to coarse gravel, fine to coarse sand, gray-green, moist, no odor, concrete fragments.	GM						
							0.1		
							0.2		

Log of Test Pit: TP-8

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 02/03/09 1407
Date/Time Completed: 02/03/09 1435
Equipment: Deere 450C LC
Excavating Company: Woodworth & Co., Inc.
Excavating Foreman: Reg
Excavating Method: Backhoe

Sampler Type: 22" bucket
Depth of Water (ft bgs): NE
Total Excavation Depth (ft bgs): 16

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, with various fragments and debris such as concrete, asphalt, ceramic, wood, brick fragments, and a small amount of waste material such as rubber, tile, a large steel nail, and an aluminum pop can.	GP						
							0.1		
							0.1		
								TP8-020309-4 1415	X
5							0.1		
							0.1		
							0.0		
10									
							0.1	TP8-020309-11 1420	
							0.0		
		Waste material in soil decreasing in concentration.							
15									
		Soil extremely hard, excavator cannot penetrate past 16 feet below ground surface.					0.1		
								TP8-020309-16 1430	

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Log of Test Pit: TP-9

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 02/03/09 1438
Date/Time Completed: 02/03/09 1458
Equipment: Deere 450C LC
Excavating Company: Woodworth & Co., Inc.
Excavating Foreman: Reg
Excavating Method: Backhoe

Sampler Type: 22" bucket
Depth of Water (ft bgs): 11
Total Excavation Depth (ft bgs): 16

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		Poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, brown, moist, no odor, concrete and asphalt debris, and a small amount of waste material such as caution tape.	GP						
		Brick fragments observed, very little asphalt.							
5								TP9-020309-5 1445	X
10									
		Water encountered at approximately 11 feet below ground surface.						TP9-020309-11 1450	
		Fewer brick fragments observed.							
15									
								TP9-020309-16 1455	

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Log of Test Pit: TP-10

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Client: Woodworth & Company, Inc.
Project: Woodworth Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-001

Logged By: D. Clement

Date/Time Started: 02/03/09 1500
Date/Time Completed: 02/03/09 1525
Equipment: Deere 450C LC
Excavating Company: Woodworth & Co., Inc.
Excavating Foreman: Reg
Excavating Method: Backhoe

Sampler Type: 22" bucket
Depth of Water (ft bgs): NE
Total Excavation Depth (ft bgs): 11.5

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed
0		Asphalt debris (75%) with poorly-graded GRAVEL with sand (60% gravel, 35% sand, 5% silt), fine to coarse gravel, fine to coarse sand, black, moist, no odor.	GP						
							0.7		
							0.5	TP10-020309-2 1500	
							0.3		
5									
		2-3 bricks in soil							
		Concrete fragments observed.					0.2	TP10-020309-6 1515	X
							0.1		
10									
		Large slab of concrete, excavator cannot penetrate below 11.5 feet below ground surface.							
								TP10-020309-11 1520	

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Log of Boring: B2

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Client: Woodworth Capital, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: J. Peterson and E.

Date/Time Started: 07/16/12 900
Date/Time Completed: 07/16/12 1030
Equipment: Geoprobe
Drilling Company: Cascade Drilling
Drilling Foreman: Frank
Drilling Method: Direct Push

Sampler Type: Macrocore Sleeve
Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 6.5
Total Boring Depth (ft bgs): 14.5
Total Well Depth (ft bgs): 7

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-3.5' bgs: Well-graded SAND with silt and gravel (50% sand, 40% gravel, 10% silt), fine to coarse sand and gravel, tan to brown, moist, no odor.	SW-SM							
							20	B2-3.1 @ 930	X	
5		5-6.5' bgs: Well-graded SAND with silt and gravel (50% sand, 40% gravel, 10% silt), fine to coarse sand and gravel, tan to brown, moist, no odor.	SW-SM		70					
		6.5-8.5' bgs: Well-graded GRAVEL with sand (60% gravel, 40% sand), fine to coarse gravel, coarse sand, gray-natural, wet, no odor.	GW				4.6	B2-6.5 @ 940	X	
10		10-11.3' bgs: Well-graded SAND with silt and gravel (50% sand, 40% gravel, 10% silt), fine to coarse sand and gravel, moist, no odor, some brick, possibly slough.	SW-SM		70					
		11.3-12.7' bgs: Well-graded GRAVEL with sand (60% gravel, 40% sand), fine to coarse gravel, coarse sand, tan to brown, wet, no odor.	GW				2.8	B2-11.7 @ 950	X	
		12.7-14.5' bgs: Silty GRAVEL with sand (60% gravel, 25% silt, 15% sand), coarse gravel, fine sand.	GM				0.4	B2-13.5 @ 1000	X	
15		14.5' bgs: Refusal			90					

Well Construction Information

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Boring Abandonment: Bentonite
Surveyed Location: **X:** NA **Y:** NA

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Log of Boring: B3

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Client: Woodworth Capitol, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: J. Peterson and E.

Date/Time Started: 07/16/12 1030
Date/Time Completed: 07/16/12 1200
Equipment: Geoprobe
Drilling Company: Cascade Drilling
Drilling Foreman: Frank
Drilling Method: Direct Push

Sampler Type: Macrocore Sleeve
Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 2.6, 6.8
Total Boring Depth (ft bgs): 13
Total Well Depth (ft bgs): NA

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-3' bgs: Well-graded SAND with silt and gravel (50% sand, 35% gravel, 15% silt), fine to coarse sand and gravel, tan to brown, moist, no odor, wet @ 2.6' bgs.	SW-SM							
							5.0	B3-2.4 @ 1040	X	
5		5-5.5' bgs: Well-graded SAND with silt and gravel (50% sand, 35% gravel, 15% silt), fine to coarse sand and gravel, tan to brown, moist, no odor.	SW-SM		60					
		5.5-6.1' bgs: Silty SAND with gravel (50% sand, 30% gravel, 20% silt), fine sand and gravel, brown, moist, no odor.	SM							
		6.1-6.8' bgs: Poorly-graded SAND with silt and gravel (50% sand, 30% gravel, 20% silt), fine sand and gravel, brown, moist, no odor.	SW-SM							
		6.8-7.5' bgs: Well-graded GRAVEL with sand (60% gravel, 40% sand), fine to coarse gravel, coarse sand, wet, natural-gray, no odor.	GW				2.5	B3-7.1 @ 1050	X	
		7.5-10' bgs: Silty GRAVEL (60% gravel, 40% silt), medium to coarse gravel, brown, moist, no odor, inorganic and moderately plastic.	GM				1.7	B3-7.9 @ 1100	X	
10		10-13' bgs: Silty GRAVEL (60% gravel, 40% silt), medium to coarse gravel, brown, moist, no odor, inorganic and moderately plastic.	GM		100					
							0.1	B3-12.5 @ 1110	X	
		13' bgs: Refusal			100					
15										

Well Construction Information

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Boring Abandonment: Bentonite
Surveyed Location: **X:** NA **Y:** NA

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consulting
975 5th Avenue Northwest
Issaquah, Washington 98027

Log of Boring: B4

Page 1 of 1

Client: Woodworth Capitol, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: J. Peterson and E.

Date/Time Started: 07/16/12 1200
Date/Time Completed: 07/16/12 1315
Equipment: Geoprobe
Drilling Company: Cascade Drilling
Drilling Foreman: Frank
Drilling Method: Direct Push

Sampler Type: Macrocore Sleeve
Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 6.4
Total Boring Depth (ft bgs): 14.5
Total Well Depth (ft bgs): NA

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-3.8' bgs: Silty SAND with gravel (50% sand, 30% gravel, 20% silt), fine to coarse sand and gravel, dark gray to black, moist, no odor, larger gravels towards 3' bgs.	SM				1.4	B4-2.9 @ 1225	X	
5		5-6.3' bgs: Silty SAND with gravel (50% sand, 30% gravel, 20% silt), fine to coarse sand and gravel, black, moist, no odor, fining downwards.	SM		75		0.0	B4-5.9 @ 1235	X	
		6.3-6.7' bgs: Well-graded GRAVEL with silt and sand (70% gravel, 15% sand, 15% silt), fine to coarse gravel, fine sand, brown, wet, no odor.	GW-GM				0.0	B4-6.4 @ 1245	X	
		6.7-8' bgs: Silty GRAVEL with sand (60% gravel, 25% silt, 15% sand), coarse gravel, fine sand, tan to brown, moist, no odor.	GM				0.4	B4-7.1 @ 1255	X	
		8-9.5' bgs: Gravelly SILT with sand (40% silt, 30% gravel, 30% sand), fine sand and gravel, tan to brown, moist, no odor.	ML							
10		10-14.5' bgs: Gravelly SILT with sand (40% silt, 30% gravel, 30% sand), fine sand and gravel, tan to brown, moist, no odor.	ML		90					
15		14.5' bgs: Refusal			90					

Well Construction Information

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Boring Abandonment: Bentonite
Surveyed Location: **X:** NA **Y:** NA

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Issaquah, Washington 98027

Log of Boring: B5

Page 1 of 1

Client: Woodworth Capitol, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: J. Peterson and E.

Date/Time Started: 07/16/12 1315
Date/Time Completed: 07/16/12 1350
Equipment: Geoprobe
Drilling Company: Cascade Drilling
Drilling Foreman: Frank
Drilling Method: Direct Push

Sampler Type: Macrocore Sleeve
Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 1.9
Total Boring Depth (ft bgs): 9.9
Total Well Depth (ft bgs): NA

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-1' bgs: Silty SAND with gravel (50% sand, 30% gravel, 20% silt), fine to medium sand, fine gravel, black, moist, no odor, asphalt-like black substance.	SM							
		1-1.8' bgs: Silty SAND with gravel (50% sand, 30% gravel, 20% silt), fine to medium sand, fine to coarse gravel, dark-gray staining, no odor, medium sheen.	SM				0.9	B5-1.1 @ 1325	X	
		1.8-3.3' bgs: Silty GRAVEL with sand (60% gravel, 20% sand, 20% silt), fine to coarse gravel, fine sand, tan to brown, moist, wet @1.8-2.1', no odor.	GW/SM				0.0	B5-1.8 @ 1335	X	
5		5-6.6' bgs: Silty GRAVEL with sand (60% gravel, 20% sand, 20% silt), fine to coarse gravel, fine sand, tan to brown, moist, no odor.	GM		65					
		6.6-9.9' bgs: Gravelly SILT with sand (45% gravel, 40% silt, 15% sand), fine to coarse gravel, fine sand, tan, moist, no odor.	ML				0.1	B5-6.9 @ 1345	X	
10		9.9' bgs: Refusal			100					
15										

Well Construction Information

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Boring Abandonment: Bentonite
Surveyed Location: **X:** NA **Y:** NA

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975 5th Avenue Northwest
Issaquah, Washington 98027

Log of Boring: B6

Client: Woodworth Capitol, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: J. Peterson and E.

Date/Time Started: 07/16/12 1350
Date/Time Completed: 07/16/12 1430
Equipment: Geoprobe
Drilling Company: Cascade Drilling
Drilling Foreman: Frank
Drilling Method: Direct Push

Sampler Type: Macrocore Sleeve
Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 1.9
Total Boring Depth (ft bgs): 12
Total Well Depth (ft bgs): NA

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-0.8' bgs: Silty SAND with gravel (50% sandc, 30% gravel, 20% silt), fine to medium sand, fine gravel, black, asphalt-like substance, moist, no odor.	SM							
		0.8-1.9' bgs: Silty SAND with gravel (50% sand, 30% gravel, 20% silt), fine to medium sand, fine to coarse gravel, brown, moist, no odor.	SM							
		1.9-2.4' bgs: Silty SAND with gravel (50% sand, 30% gravel, 20% silt), fine to medium sand, fine to coarse gravel, brown, moist to wet, no odor, sheen.	SM				1.5	B6-2.1 @ 1400	X	
		2.4-3.8' bgs: Silty GRAVEL with sand (60% gravel, 20% sand, 20% silt), fine to coarse gravel, mostly coarse gravel, fine sand, brown to tan, moist, no odor.	GM				0.3	B6-2.8 @ 1410	X	
5		5-7.5' bgs: Silty GRAVEL with sand (60% gravel, 20% sand, 20% silt), fine to coarse gravel, fine sand, brown to tan, moist, no odor, transitioning to silt.	SM		75					
		7.5-10' bgs: Gravelly SILT with sand (45% silt, 40% gravel, 15% sand), fine gravel, fine sand, brown to tan, moist, no odor.	ML				0.4	B6-9.5 @ 1420	X	
10		10-12' bgs: SILT (80% silt, 10% sand, 10% gravel), fine sand and gravel, moist, brown to tan, no odor, low plasticity, organics.	ML		100					
		12' bgs: Refusal								
15					40					

Well Construction Information

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Boring Abandonment: Bentonite
Surveyed Location: **X:** NA **Y:** NA

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Issaquah, Washington 98027

Log of Boring: B7

Page 1 of 1

Client: Woodworth Capitol, Inc.
Project: Lakeveiw Facility
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: J. Peterson and E.

Date/Time Started: 07/17/12 1440
Date/Time Completed: 07/17/12 1600
Equipment: Geoprobe
Drilling Company: Cascade Drilling
Drilling Foreman: Frank
Drilling Method: Direct Push

Sampler Type: Macrocore Sleeve
Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 2.2, 6.0
Total Boring Depth (ft bgs): 9
Total Well Depth (ft bgs): NA

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-1.5' bgs: Silty SAND with gravel (50% sand, 30% gravel, 20% silt), fine to medium sand, fine gravel, black, asphalt-like substance, moist, no odor.	SM							
		1.5-2.1' bgs: Silty SAND with gravel (50% sand, 30% gravel, 20% silt), fine to medium sand, fine to coarse gravel, gray, moist, no odor.	SM							
		2.1-2.9' bgs: Silty SAND with gravel (50% sand, 30% gravel, 20% silt), fine to medium sand, fine to coarse gravel, gray, very moist, no odor.	SM				3.6	B7-2.2 @ 1445	X	
		2.9-3.5' bgs: Silty GRAVEL with sand (60% gravel, 20% silt, 20% sand), fine to coarse gravel, fine sand, brown, moist, no odor.	GM							
5		5-6.1' bgs: Well-graded SAND with gravel (70% sand, 20% gravel, 10% silt), fine to medium sand, fine to coarse gravel, moist, no odor.	SW		70					
		6.1-7' bgs: Well-graded SAND with gravel (70% sand, 20% gravel, 10% silt), fine to medium sand, fine to coarse gravel, wet, no odor, coarsening downward.	SW				0.1 0.6	B7-6.2 @ 1455 B7-6.5 @ 1505	X X	
		7-9' bgs: Gravelly SILT with sand (45% silt, 40% gravel, 15% sand), fine gravel and sand, tan to brown, moist, no odor, low plasticity, some organics.	ML				0.0	B7-7.2 @ 1515	X	
		9' bgs: Refusal			100					
10										

Well Construction Information

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Boring Abandonment: Bentonite
Surveyed Location: **X:** NA **Y:** NA

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Log of Boring: B9

Page 1 of 1

Client: Woodworth Capitol, Inc.
Project: Lakeview Facility
Location: Lakewood, WA

Farallon PN: 188-002

Logged By: J. Peterson and E.

Date/Time Started: 07/17/12 1600
Date/Time Completed: 07/17/12 1645
Equipment: Geoprobe
Drilling Company: Cascade Drilling
Drilling Foreman: Frank
Drilling Method: Direct Push

Sampler Type: Macrocore Sleeve
Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 6.8
Total Boring Depth (ft bgs): 11
Total Well Depth (ft bgs): NA

Depth (feet bgs.)	Sample Interval	Lithologic Description	USCS	USGS Graphic	% Recovery	Blow Counts 8/8/8	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0-3' bgs: Silty SAND with gravel (45% sand, 25% gravel, 20% silt), fine to coarse sand and gravel, brown, moist, no odor.	SM	🟦			0.3	B9-2.9 @ 1615	X	
5		5-6' bgs: Silty SAND with gravel (45% sand, 25% gravel, 20% silt), fine to coarse sand and gravel, brown, moist, no odor.	SM	🟦	60					
		6-8.5' bgs: Silty SAND with gravel (45% sand, 25% gravel, 20% silt), fine to coarse sand and gravel, black, moist to wet @ 6.8-7.3' bgs, no odor, no sheen.	SM	🟦			0.0	B9-7.0 @ 1625	X	
		8.5-9' bgs:Silty SAND with gravel (45% sand, 25% gravel, 20% silt), fine to coarse sand and gravel, gray, moist, no odor, no sheen.	SM	🟦			0.0	B9-8.7 @ 1635	X	
10		10-10.5' bgs: Silty SAND with gravel (45% sand, 25% gravel, 20% silt), fine to coarse sand and gravel, brown, moist, no odor, possible slough.	SM	🟦	80					
		10.5-11' bgs: Sandy SILT with gravel (45% sand, 40% gravel, 15% sand), fine to coarse gravel, fine sand, moist, no odor. 11' bgs: Refusal	ML	🟨	100					

Well Construction Information

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

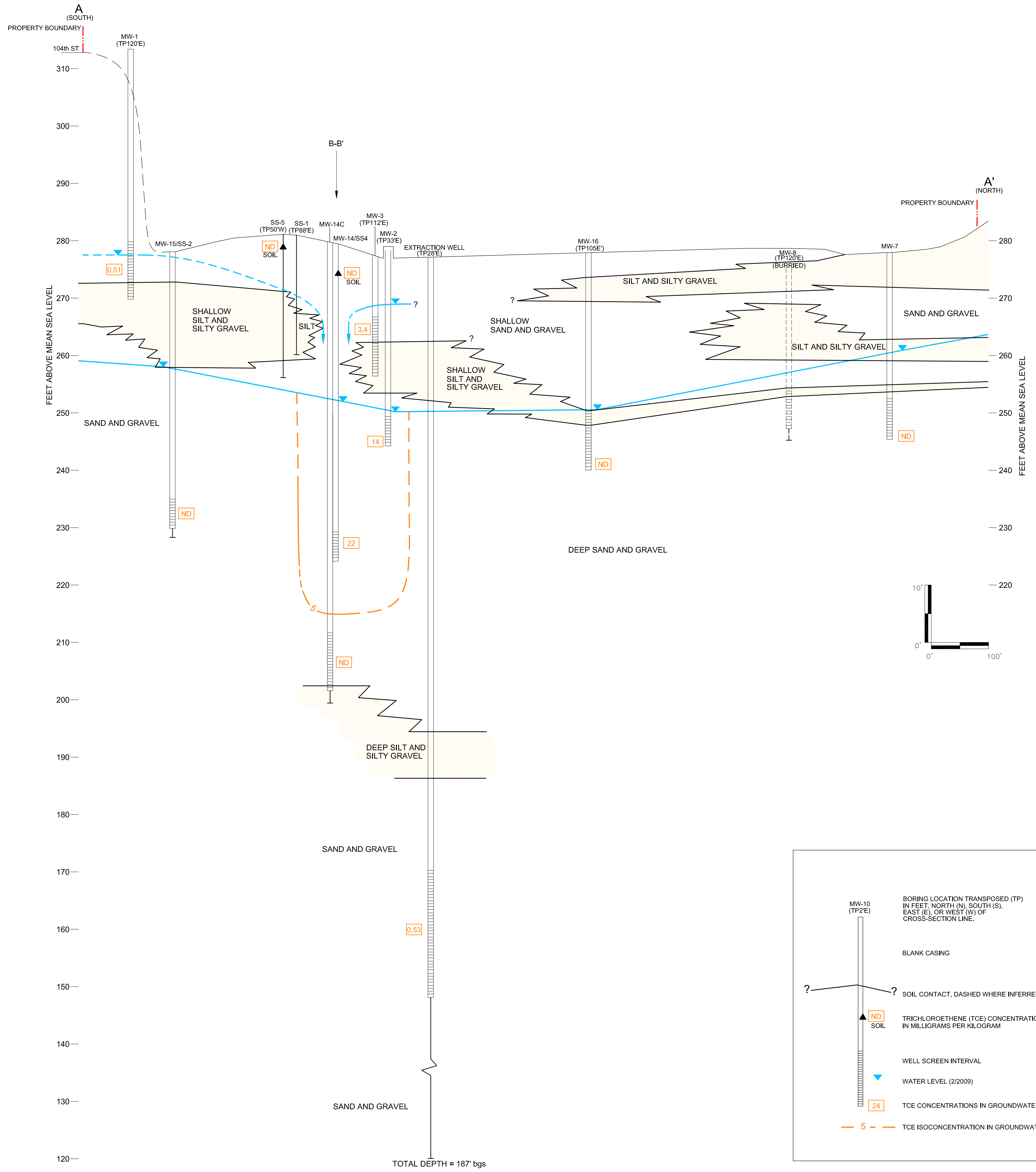
Filter Pack: NA
Surface Seal: NA
Annular Seal: NA

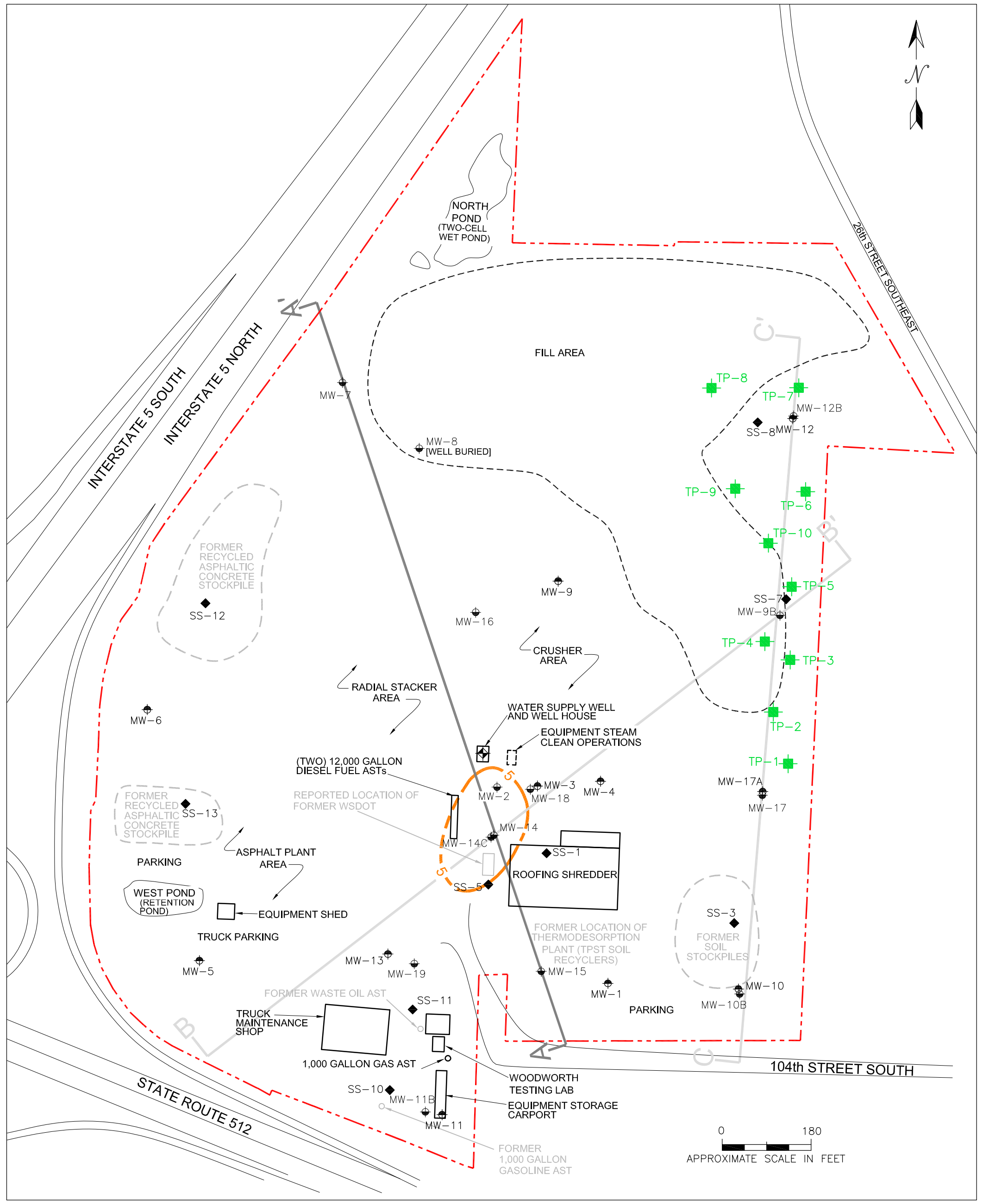
Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Boring Abandonment: Bentonite
Surveyed Location: **X:** NA **Y:** NA

APPENDIX B
REMEDIAL INVESTIGATION CROSS SECTIONS

FOCUSED FEASIBILITY STUDY/
DISPROPORTIONATE COST ANALYSIS REPORT
Lakeview Facility
2800 104th Street Court South
Lakewood, Washington

Farallon PN: 188-002





LEGEND

MW-10
(TP2'E)

BORING LOCATION TRANSPOSED (TP) IN FEET, NORTH (N), SOUTH (S), EAST (E), OR WEST (W) OF CROSS-SECTION LINE.

BLANK CASING

?——? SOIL CONTACT, DASHED WHERE INFERRED

▲ ND SOIL TRICHLOROETHENE (TCE) CONCENTRATIONS IN SOIL IN MILLIGRAMS PER KILOGRAM

WELL SCREEN INTERVAL

▼ WATER LEVEL (2/2009)

24 TCE CONCENTRATIONS IN GROUNDWATER IN MICROGRAMS PER LITER (ug/L)

— 5 - — TCE ISOCONCENTRATION IN GROUNDWATER IN ug/L, DASHED WHERE INFERRED

A A' LINE OF CROSS-SECTION

SITE BOUNDARY

FORMER STOCKPILE AREAS AND ABOVEGROUND STORAGE TANK (AST) LOCATIONS AS IDENTIFIED ON APEX ENGINEERING PLLC DRAWING (REF. 12795) IN THE AUGUST 11, 2003 TACOMA-PIERCE COUNTRY HEALTH DEPARTMENT SITE HAZARD ASSESSMENT REPORT.

MW-11 ⊕ MONITORING WELL SCREENED IN SHALLOW WATER-BEARING ZONE

MW-15 ⊕ MONITORING WELL SCREENED IN DEEP WATER-BEARING ZONE

✦ EXTRACTION WELL

SS-10 ◆ SOIL SAMPLE

🟩 TEST PIT

WSDOT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

ALL LOCATIONS OF SITE FEATURES ARE APPROXIMATE AND ASSEMBLED FROM 2008 AERIAL PHOTOGRAPH, UNLESS OTHERWISE NOTED. MONITORING WELL LOCATIONS WERE SURVEYED FOR HORIZONTAL AND VERTICAL COORDINATES BY A LICENSED SURVEYOR IN SEPTEMBER AND OCTOBER 2008, AND IN FEBRUARY 2009.

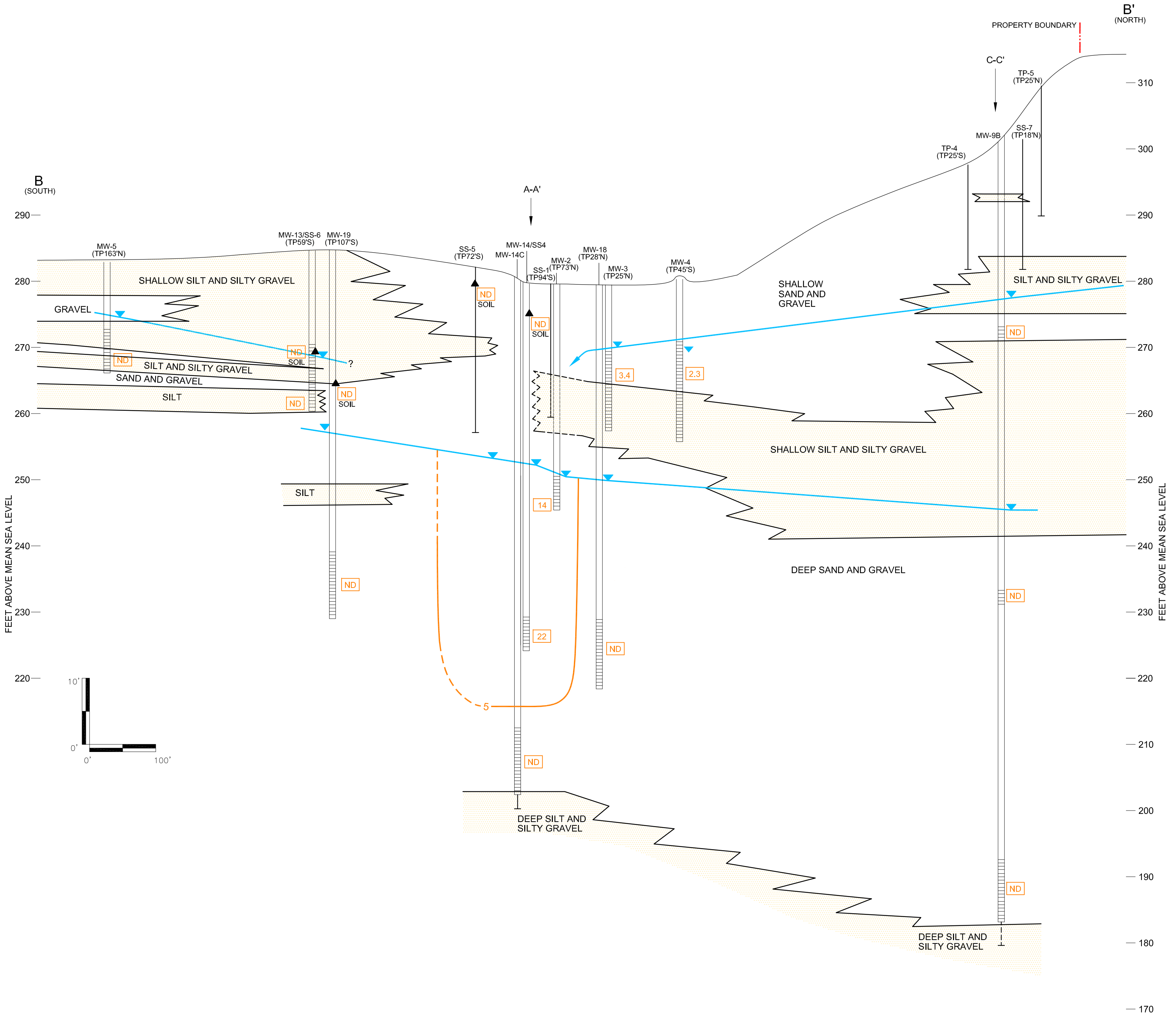
FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

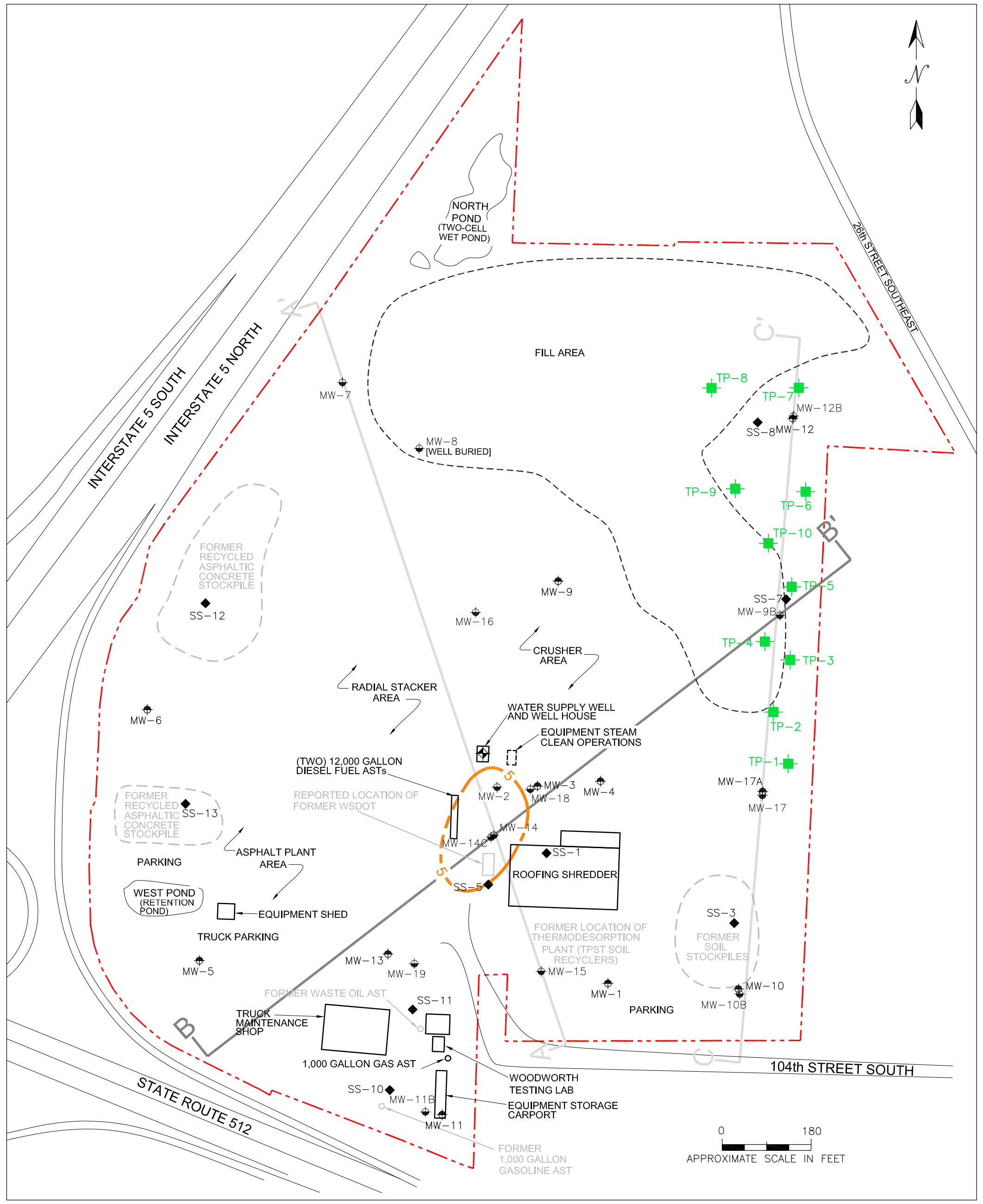
FIGURE 7

CROSS–SECTION A–A'
WOODWORTH LAKEVIEW FACILITY
2800 104th STREET SOUTH
LAKEWOOD, WASHINGTON

FARALLON PN: 188–001

Drawn By: DEW | Checked By: BJ | Date:8/20/09 | Disk Reference:CROSECTIONb





LEGEND

MW-10
(TP2'E)

BORING LOCATION TRANSPOSED (TP) IN FEET, NORTH (N), SOUTH (S), EAST (E), OR WEST (W) OF CROSS-SECTION LINE.

BLANK CASING

? ?
SOIL CONTACT, DASHED WHERE INFERRED

ND
SOIL
TRICHLOROETHENE (TCE) CONCENTRATIONS IN SOIL IN MILLIGRAMS PER KILOGRAM

WELL SCREEN INTERVAL

▼ WATER LEVEL (2/2009)

24 TCE CONCENTRATIONS IN GROUNDWATER IN MICROGRAMS PER LITER (ug/L)

B B' LINE OF CROSS-SECTION

SITE BOUNDARY

FORMER STOCKPILE AREAS AND ABOVEGROUND STORAGE TANK (AST) LOCATIONS AS IDENTIFIED ON APEX ENGINEERING PLLC DRAWING (REF. 12795) IN THE AUGUST 11, 2003 TACOMA-PIERCE COUNTRY HEALTH DEPARTMENT SITE HAZARD ASSESSMENT REPORT.

MW−11 MONITORING WELL SCREENED IN SHALLOW WATER-BEARING ZONE

MW−15 MONITORING WELL SCREENED IN DEEP WATER-BEARING ZONE

EXTRACTION WELL

SS−10 ◆ SOIL SAMPLE

🟩 TEST PIT

WSDOT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

ALL LOCATIONS OF SITE FEATURES ARE APPROXIMATE AND ASSEMBLED FROM 2008 AERIAL PHOTOGRAPH, UNLESS OTHERWISE NOTED. MONITORING WELL LOCATIONS WERE SURVEYED FOR HORIZONTAL AND VERTICAL COORDINATES BY A LICENSED SURVEYOR IN SEPTEMBER AND OCTOBER 2008, AND IN FEBRUARY 2009.

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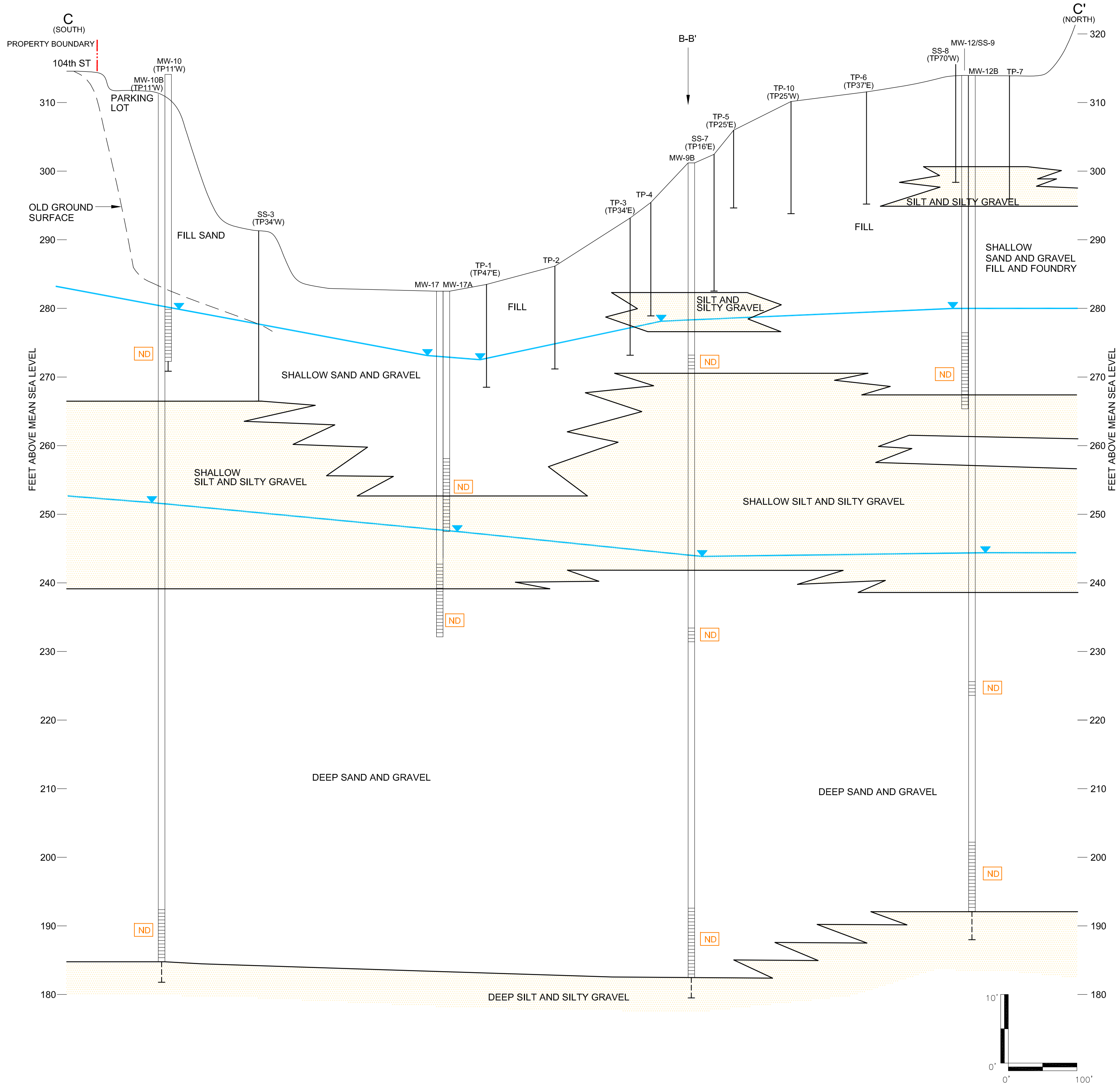
Issaquah, WA 98027

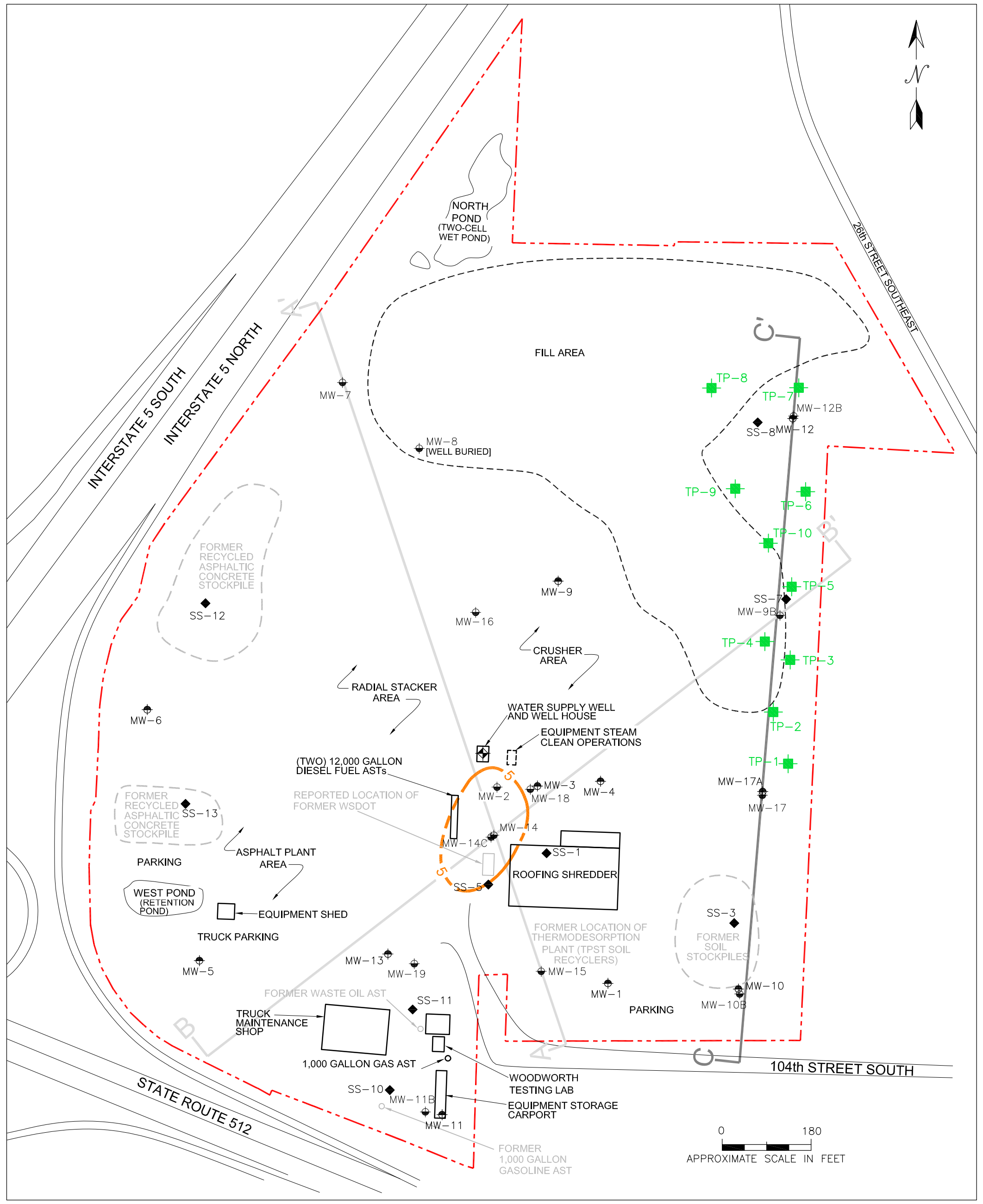
FIGURE 8

CROSS−SECTION B−B'
WOODWORTH LAKEVIEW FACILITY
2800 104th STREET SOUTH
LAKEWOOD, WASHINGTON

FARALLON PN: 188−001

Drawn By: DEW | Checked By: BJ | Date 8/20/09 | Disk Reference: CROSECTIONb





LEGEND

MW-10 (TP2'E)	BORING LOCATION TRANSPOSED (TP) IN FEET, NORTH (N), SOUTH (S), EAST (E), OR WEST (W) OF CROSS-SECTION LINE.
	BLANK CASING
? ?	SOIL CONTACT, DASHED WHERE INFERRED
ND SOIL	TRICHLOROETHENE (TCE) CONCENTRATIONS IN SOIL IN MILLIGRAMS PER KILOGRAM
	WELL SCREEN INTERVAL
▼	WATER LEVEL (2/2009)
24	TCE CONCENTRATIONS IN GROUNDWATER IN MICROGRAMS PER LITER (ug/L)

C C'	LINE OF CROSS-SECTION
🟥	SITE BOUNDARY
	FORMER STOCKPILE AREAS AND ABOVEGROUND STORAGE TANK (AST) LOCATIONS AS IDENTIFIED ON APEX ENGINEERING PLLC DRAWING (REF. 12795) IN THE AUGUST 11, 2003 TACOMA-PIERCE COUNTRY HEALTH DEPARTMENT SITE HAZARD ASSESSMENT REPORT.
MW-11 ⊕	MONITORING WELL SCREENED IN SHALLOW WATER-BEARING ZONE
MW-15 ⊕	MONITORING WELL SCREENED IN DEEP WATER-BEARING ZONE
✦	EXTRACTION WELL
SS-10 ◆	SOIL SAMPLE
🟩	TEST PIT
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

ALL LOCATIONS OF SITE FEATURES ARE APPROXIMATE AND ASSEMBLED FROM 2008 AERIAL PHOTOGRAPH, UNLESS OTHERWISE NOTED. MONITORING WELL LOCATIONS WERE SURVEYED FOR HORIZONTAL AND VERTICAL COORDINATES BY A LICENSED SURVEYOR IN SEPTEMBER AND OCTOBER 2008, AND IN FEBRUARY 2009.

FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 9

CROSS-SECTION C-C'
WOODWORTH LAKEVIEW FACILITY
2800 104th STREET SOUTH
LAKEWOOD, WASHINGTON

FARALLON PN: 188-001

Drawn By: DEW	Checked By: BJ	Date 8/20/09	Disk Reference: CROSECTIONb

APPENDIX C
LABORATORY ANALYTICAL REPORTS

FOCUSED FEASIBILITY STUDY/
DISPROPORTIONATE COST ANALYSIS REPORT
Lakeview Facility
2800 104th Street Court South
Lakewood, Washington

Farallon PN: 188-002

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

August 15, 2011

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1108-049

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on August 4, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

Case Narrative

Samples were collected on August 2 and 3, 2011 and received by the laboratory on August 4, 2011. They were maintained at the laboratory at a temperature of 2^oC to 6^oC.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-24-080211**					
Laboratory ID:	08-049-01					
Diesel Range Organics	**ND**	0.27	NWTPH-Dx	8-8-11	8-8-11	
Lube Oil Range Organics	**ND**	0.43	NWTPH-Dx	8-8-11	8-8-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**MW-11-080311**					
Laboratory ID:	08-049-08					
Diesel Range Organics	**ND**	0.28	NWTPH-Dx	8-8-11	8-8-11	
Lube Oil Range Organics	**ND**	0.44	NWTPH-Dx	8-8-11	8-8-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0808W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	8-8-11	8-8-11	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	8-8-11	8-8-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	08-049-01							
	ORIG	DUP						
Diesel Range Organics	**ND**	**ND**				NA	NA	
Lube Oil Range Organics	**ND**	**ND**				NA	NA	
Surrogate:								
o-Terphenyl			*86*	*87*	*50-150*			

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-16-080211**					
Laboratory ID:	08-049-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	0.20	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-16-080211**					
Laboratory ID:	08-049-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*68-120*				
Toluene-d8	*92*	*73-120*				
4-Bromofluorobenzene	*78*	*65-120*				

Date of Report: August 15, 2011
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2-080211**					
Laboratory ID:	08-049-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	0.45	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	0.54	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	1.5	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	11	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2-080211**					
Laboratory ID:	08-049-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*68-120*				
Toluene-d8	*95*	*73-120*				
4-Bromofluorobenzene	*77*	*65-120*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-15-080211**					
Laboratory ID:	08-049-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	0.26	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	0.45	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	3.5	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-15-080211**					
Laboratory ID:	08-049-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*68-120*				
Toluene-d8	*93*	*73-120*				
4-Bromofluorobenzene	*77*	*65-120*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-22-080311**					
Laboratory ID:	08-049-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	0.61	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	0.34	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	2.3	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	13	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-22-080311**					
Laboratory ID:	08-049-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*68-120*				
Toluene-d8	*94*	*73-120*				
4-Bromofluorobenzene	*77*	*65-120*				

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Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-14-080311**					
Laboratory ID:	08-049-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	2.4	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	0.33	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	0.41	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	6.8	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	25	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

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Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-14-080311**					
Laboratory ID:	08-049-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*68-120*				
Toluene-d8	*93*	*73-120*				
4-Bromofluorobenzene	*78*	*65-120*				

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-18-080311**					
Laboratory ID:	08-049-09					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	0.81	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	0.56	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	2.6	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-18-080311**					
Laboratory ID:	08-049-09					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*68-120*				
Toluene-d8	*93*	*73-120*				
4-Bromofluorobenzene	*77*	*65-120*				

Date of Report: August 15, 2011
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-19-080311**					
Laboratory ID:	08-049-10					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-19-080311**					
Laboratory ID:	08-049-10					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*68-120*				
Toluene-d8	*94*	*73-120*				
4-Bromofluorobenzene	*78*	*65-120*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-20-080311**					
Laboratory ID:	08-049-11					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	0.46	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	0.28	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	2.8	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	30	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-20-080311**					
Laboratory ID:	08-049-11					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*68-120*				
Toluene-d8	*93*	*73-120*				
4-Bromofluorobenzene	*76*	*65-120*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-21-080311**					
Laboratory ID:	08-049-12					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-21-080311**					
Laboratory ID:	08-049-12					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*68-120*				
Toluene-d8	*95*	*73-120*				
4-Bromofluorobenzene	*78*	*65-120*				

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-23-080311**					
Laboratory ID:	08-049-13					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	0.79	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-23-080311**					
Laboratory ID:	08-049-13					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*68-120*				
Toluene-d8	*93*	*73-120*				
4-Bromofluorobenzene	*79*	*65-120*				

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL

Page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0805W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloromethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Vinyl Chloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Iodomethane	ND	1.0	EPA 8260	8-5-11	8-5-11	
Methylene Chloride	ND	1.0	EPA 8260	8-5-11	8-5-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chloroform	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Trichloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromomethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromodichloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-5-11	8-5-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-5-11	8-5-11	

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0805W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Tetrachloroethene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Dibromochloromethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Chlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
Bromoform	ND	1.0	EPA 8260	8-5-11	8-5-11	
Bromobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-5-11	8-5-11	
2-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
4-Chlorotoluene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-5-11	8-5-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-5-11	8-5-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-5-11	8-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*68-120*				
Toluene-d8	*93*	*73-120*				
4-Bromofluorobenzene	*78*	*65-120*				

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-055-01										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**11.7**	**11.6**	10.0	10.0	ND	117	116	70-130	1	12	
Benzene	**11.1**	**10.8**	10.0	10.0	ND	111	108	75-123	3	11	
Trichloroethene	**10.4**	**10.3**	10.0	10.0	ND	104	103	80-117	1	14	
Toluene	**10.5**	**10.4**	10.0	10.0	ND	105	104	80-115	1	12	
Chlorobenzene	**10.2**	**10.1**	10.0	10.0	ND	102	101	80-117	1	13	
Surrogate:											
Dibromofluoromethane						*98*	*100*	*68-120*			
Toluene-d8						*92*	*93*	*73-120*			
4-Bromofluorobenzene						*77*	*79*	*65-120*			

Date of Report:
Samples Submitted:
Laboratory Reference:
Project:

DISSOLVED METALS
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	08-049-03					
Client ID:	**MW-12-080211**					
Arsenic	**6.5**	3.0	200.8	8-4-11	8-10-11	
Lead	**25**	1.0	200.8	8-4-11	8-10-11	

Date of Report:
Samples Submitted:
Laboratory Reference:
Project:

DISSOLVED METALS
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Filtered: 8-4-11
Date Analyzed: 8-10-11

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0804F1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0
Lead	200.8	**ND**	1.0

Date of Report:
Samples Submitted:
Laboratory Reference:
Project:

DISSOLVED METALS
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Filtered: 8-4-11
Date Analyzed: 8-10-11

Matrix: Water
Units: ug/L (ppb)

Lab ID: 08-048-05

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.0	
Lead	**ND**	**ND**	NA	1.0	

Date of Report:
Samples Submitted:
Laboratory Reference:
Project:

DISSOLVED METALS
EPA 200.8
MS/MSD QUALITY CONTROL

Date Filtered: 8-4-11
Date Analyzed: 8-10-11

Matrix: Water
Units: ug/L (ppb)

Lab ID: 08-048-05

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**204**	102	**211**	105	3	
Lead	200	**192**	96	**189**	94	2	

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

TOTAL METALS
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	08-049-03					
Client ID:	**MW-12-080211**					
Arsenic	**8.6**	3.3	200.8	8-10-11	8-10-11	
Lead	**35**	1.1	200.8	8-10-11	8-10-11	

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

TOTAL METALS
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Extracted:	8-10-11
Date Analyzed:	8-10-11
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB0810W1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.3
Lead	200.8	**ND**	1.1

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

TOTAL METALS
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Extracted:	8-10-11
Date Analyzed:	8-10-11
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	08-066-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**73.1**	**71.7**	2	3.3	
Lead	**ND**	**ND**	NA	1.1	

Date of Report: August 15, 2011
Samples Submitted: August 4, 2011
Laboratory Reference: 1108-049
Project: 188-002

TOTAL METALS
EPA 200.8
MS/MSD QUALITY CONTROL

Date Extracted: 8-10-11
Date Analyzed: 8-10-11

Matrix: Water
Units: ug/L (ppb)

Lab ID: 08-066-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	111	**172**	89	**177**	93	3	
Lead	111	**105**	95	**110**	99	5	

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
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Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 2

Laboratory Number: 08-049

Company: Farallon Consulting
Project Number: 188-002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Jon Peterson, Anna Sigel

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664	Dissolved As, Pb	Total As, Pb					% Moisture
1	MW-24-080211	8/2/11	1655	water	2				X																		
2	MW-16-080211		1735		3						X																
3	MW-12-080211		1830		2																~~X~~ hold	X					
4	MW-2-080211		1910		3						X																
5	MW-15-080211		1955		3						X																
6	MW-22-080311	8/3/11	1000		3						X																
7	MW-14-080311		1045		3						X																
8	MW-11-080311		1130		2				X																		
9	MW-18-080311		1140		3						X																
10	MW-19-080311		1215		3						X																

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		Farallon	8/3/11	1800	MW-12 unfiltered, hold dissolved sample JP
Received		OSE	8/4/11	1330	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

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Chain of Custody

Page 2 of 2

Company: Farallon
Project Number: 186 002
Project Name: Woodworth
Project Manager: Brani
Sampled by: Jon, Anna

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Laboratory Number: 08-049

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664							% Moisture
11	MW-20-080311	8/3/11	1300	water	3						X																
12	MW-21-080311		1315		3						X																
13	MW-23-080311		1355		3						X																

	Signature	Company	Date	Time
Relinquished		Farallon	8/3/11	1800
Received		OSE	8/4/11	1330
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

OnSite Environmental Inc.
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May 12, 2011

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re:	Analytical Data for Project 188-002
Laboratory Reference No. 1105-038

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on May 5, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

Case Narrative

Samples were collected on May 3 and 4, 2011 and received by the laboratory on May 5, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Water
Units: mg/L (ppm)

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-11-050311**					
Laboratory ID:	05-038-01					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	5-5-11	5-5-11	
Lube Oil Range Organics	**ND**	0.42	NWTPH-Dx	5-5-11	5-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*105*	*50-150*				
Client ID:	**MW-24-050411**					
Laboratory ID:	05-038-11					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	5-5-11	5-5-11	
Lube Oil Range Organics	**ND**	0.42	NWTPH-Dx	5-5-11	5-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
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Project: 188-002

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0505W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	5-5-11	5-5-11	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	5-5-11	5-5-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				

Analyte	Result		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	04-219-02							
	ORIG	DUP						
Diesel Range Organics	**ND**	**ND**				NA	NA	
Lube Oil Range Organics	**ND**	**ND**				NA	NA	
Surrogate:								
o-Terphenyl			*99*	*96*	*50-150*			

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-23-050311**					
Laboratory ID:	05-038-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	0.84	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

Date of Report: May 12, 2011
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HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-23-050311**					
Laboratory ID:	05-038-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*79*	*68-107*				
Toluene-d8	*91*	*73-102*				
4-Bromofluorobenzene	*87*	*65-104*				

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-16-050311**					
Laboratory ID:	05-038-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-16-050311**					
Laboratory ID:	05-038-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*68-107*				
Toluene-d8	*86*	*73-102*				
4-Bromofluorobenzene	*79*	*65-104*				

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-21-050311**					
Laboratory ID:	05-038-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

Date of Report: May 12, 2011
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-21-050311**					
Laboratory ID:	05-038-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*82*	*68-107*				
Toluene-d8	*84*	*73-102*				
4-Bromofluorobenzene	*79*	*65-104*				

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-20-050311**					
Laboratory ID:	05-038-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	0.40	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	0.29	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	2.9	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	29	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-20-050311**					
Laboratory ID:	05-038-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*68-107*				
Toluene-d8	*90*	*73-102*				
4-Bromofluorobenzene	*85*	*65-104*				

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-22-050411**					
Laboratory ID:	05-038-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	0.94	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	0.37	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	3.4	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	15	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-22-050411**					
Laboratory ID:	05-038-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*68-107*				
Toluene-d8	*88*	*73-102*				
4-Bromofluorobenzene	*84*	*65-104*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2-050411**					
Laboratory ID:	05-038-08					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	0.51	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	0.58	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	1.5	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	12	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2-050411**					
Laboratory ID:	05-038-08					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*68-107*				
Toluene-d8	*92*	*73-102*				
4-Bromofluorobenzene	*91*	*65-104*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-14-050411**					
Laboratory ID:	05-038-09					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	3.7	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	0.41	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	0.48	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	8.8	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	30	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-14-050411**					
Laboratory ID:	05-038-09					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*86*	*68-107*				
Toluene-d8	*86*	*73-102*				
4-Bromofluorobenzene	*69*	*65-104*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-18-050411**					
Laboratory ID:	05-038-10					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	0.71	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	1.5	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-18-050411**					
Laboratory ID:	05-038-10					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*77*	*68-107*				
Toluene-d8	*86*	*73-102*				
4-Bromofluorobenzene	*79*	*65-104*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-15-050411**					
Laboratory ID:	05-038-12					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	0.46	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-15-050411**					
Laboratory ID:	05-038-12					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*68-107*				
Toluene-d8	*91*	*73-102*				
4-Bromofluorobenzene	*72*	*65-104*				

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-19-050411**					
Laboratory ID:	05-038-13					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-19-050411**					
Laboratory ID:	05-038-13					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*91*	*68-107*				
Toluene-d8	*91*	*73-102*				
4-Bromofluorobenzene	*87*	*65-104*				

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0509W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloromethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Vinyl Chloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Iodomethane	ND	1.0	EPA 8260	5-9-11	5-9-11	
Methylene Chloride	ND	1.0	EPA 8260	5-9-11	5-9-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chloroform	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Trichloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromomethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromodichloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-9-11	5-9-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-9-11	5-9-11	

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0509W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Tetrachloroethene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Dibromochloromethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Chlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
Bromoform	ND	1.0	EPA 8260	5-9-11	5-9-11	
Bromobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-9-11	5-9-11	
2-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
4-Chlorotoluene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-9-11	5-9-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-9-11	5-9-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-9-11	5-9-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*68-107*				
Toluene-d8	*95*	*73-102*				
4-Bromofluorobenzene	*80*	*65-104*				

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0509W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.03**	**8.89**	10.0	10.0	80	89	70-130	10	11	
Benzene	**10.0**	**9.85**	10.0	10.0	100	99	79-123	1	8	
Trichloroethene	**9.86**	**9.62**	10.0	10.0	99	96	82-113	2	9	
Toluene	**10.3**	**10.1**	10.0	10.0	103	101	84-113	2	8	
Chlorobenzene	**10.5**	**10.1**	10.0	10.0	105	101	89-111	4	8	
Surrogate:										
Dibromofluoromethane					*84*	*86*	*68-107*			
Toluene-d8					*86*	*88*	*73-102*			
4-Bromofluorobenzene					*83*	*84*	*65-104*			

Date of Report: May 12, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038
Project: 188-002

TOTAL METALS
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	05-038-02					
Client ID:	**MW-12-050311**					
Arsenic	**16**	3.3	200.8	5-10-11	5-10-11	
Lead	**11**	1.1	200.8	5-10-11	5-10-11	

TOTAL METALS
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Extracted:	5-10-11
Date Analyzed:	5-10-11
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB0510W1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.3
Lead	200.8	**ND**	1.1

TOTAL METALS
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Extracted: 5-10-11
Date Analyzed: 5-10-11

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-038-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**15.9**	**16.3**	3	3.3	
Lead	**11.4**	**11.7**	3	1.1	

TOTAL METALS
EPA 200.8
MS/MSD QUALITY CONTROL

Date Extracted: 5-10-11
Date Analyzed: 5-10-11

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-038-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	110	**133**	107	**133**	107	0	
Lead	110	**122**	101	**126**	104	3	

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

Page 1 of 2

Laboratory Number: 05-038

Company: Farallon Consulting LLC
Project Number: 188002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Jon Peterson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	~~Volatiles 8260B~~	[✓ Halogenated Volatiles 8260B]	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664	As/Pb Total	As/Pb dissolved					% Moisture
1	MW-11-050311	5/3/11	1228	water	2				X																		
2	MW-12-050311		1300		3						~~X~~										X	hold					
3	MW-23-050311		1408		3						X																
4	MW-16-050311		1545		3						X																
5	MW-21-050311		1700		3						X																
6	MW-20-050311		1800		3						X																
7	MW-22-050411	5/4/11	0900		3						X																
8	MW-2-050411		1010		3						X																
9	MW-14-050411		1125		3						X																
10	MW-18-050411		1800		3						X																

	Signature	Company	Date	Time
Relinquished		Farallon	5/5/11	810
Received		OSE	5.5.11	8:10
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
"MW-12-050311" collected in (3) unpreserved polys, not filtered

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

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Chain of Custody

Page 2 of 2

Company: Farallon Consulting LLC
Project Number: 188002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Jon Peterson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Laboratory Number: 05-038

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664							% Moisture
11	MW-24-050411	5-4-11	1340	water	2				X																		
12	MW-15-050411		1520	water	3						X																
13	MW-19-050411		1720	water	3						X																

	Signature	Company	Date	Time
Relinquished		Farallon	5-5-11	810
Received		OSE	5-5-11	8:10A
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

OnSite
Environmental Inc.

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May 20, 2011

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1105-038B

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on May 5, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 20, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038B
Project: 188-002

Case Narrative

Samples were collected on May 3 and 4, 2011 and received by the laboratory on May 5, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 20, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038B
Project: 188-002

DISSOLVED ARSENIC
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	05-038-02					
Client ID:	**MW-12-050311**					
Arsenic	**12**	3.0	200.8	5-5-11	5-10-11	

Date of Report: May 20, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038B
Project: 188-002

DISSOLVED ARSENIC
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Filtered:	5-5-11
Date Analyzed:	5-10-11
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB0505F1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0

Date of Report: May 20, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038B
Project: 188-002

DISSOLVED ARSENIC
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Filtered: 5-5-11
Date Analyzed: 5-10-11

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-038-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**12.2**	**11.8**	3	3.0	

Date of Report: May 20, 2011
Samples Submitted: May 5, 2011
Laboratory Reference: 1105-038B
Project: 188-002

DISSOLVED ARSENIC
EPA 200.8
MS/MSD QUALITY CONTROL

Date Filtered: 5-5-11
Date Analyzed: 5-10-11

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-038-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**221**	104	**218**	103	1	

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

Page 1 of 2

Company: Farallon Consulting LLC
Project Number: 188002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Jon Peterson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ____ (other)

Laboratory Number: 05-038

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	~~Volatiles 8260B~~	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664	As/Pb Total	As/Pb dissolved		Dissolved As			% Moisture
1	MW-11-050311	5/3/11	1228	water	2				X																		
2	MW-12-050311		1300		3						X										X	hold		⊗			
3	MW-23-050311		1408		3						X																
4	MW-16-050311		1545		3						X																
5	MW-21-050311		1700		3						X																
6	MW-20-050311		1800		3						X																
7	MW-22-050411	5/4/11	0900		3						X																
8	MW-2-050411		1010		3						X																
9	MW-14-050411		1125		3						X																
10	MW-18-050411		1800		3						X																

	Signature	Company	Date	Time
Relinquished		Farallon	5/5/11	810
Received		OSE	5.5.11	8:10
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
"MW-12-050311" collected in (3) unpreserved polys, not filtered

⊗ Added 5/12/11. DB (STA)

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ____

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Chain of Custody

Page 2 of 2

Company: Farallon Consulting LLC
Project Number: 188002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Jon Peterson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Laboratory Number: 05-038

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664							% Moisture
11	MW-24-050411	5-4-11	1340	water	2				X																		
12	MW-15-050411		1520	water	3						X																
13	MW-19-050411		1720	water	3						X																

	Signature	Company	Date	Time
Relinquished		Farallon	5-5-11	810
Received		OSE	5-5-11	8:10A
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions:

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

OnSite
Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 15, 2011

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re:	Analytical Data for Project 188-002
Laboratory Reference No. 1111-068

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on November 9, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

Case Narrative

Samples were collected on November 8 and 9, 2011 and received by the laboratory on November 9, 2011. They were maintained at the laboratory at a temperature of 2^oC to 6^oC.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

NWTPH-Dx
(with acid/silica gel clean-up)

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-11-110811**					
Laboratory ID:	11-068-07					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	11-10-11	11-10-11	
Lube Oil Range Organics	**ND**	0.42	NWTPH-Dx	11-10-11	11-10-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

NWTPH-Dx
QUALITY CONTROL
(with acid/silica gel clean-up)

Matrix: Water
Units: mg/L (ppm)

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
METHOD BLANK						
Laboratory ID:	MB1110W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	11-10-11	11-10-11	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	11-10-11	11-10-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				

Analyte	**Result**		**Percent Recovery**		**Recovery Limits**	**RPD**	**RPD Limit**	**Flags**
DUPLICATE								
Laboratory ID:	11-068-07							
	ORIG	DUP						
Diesel Range Organics	**ND**	**ND**				NA	NA	
Lube Oil Range Organics	**ND**	**ND**				NA	NA	
Surrogate:								
o-Terphenyl			*91*	*84*	*50-150*			

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-18-110811**					
Laboratory ID:	11-068-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	0.72	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	0.48	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	2.3	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-18-110811**					
Laboratory ID:	11-068-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*86*	*68-120*				
Toluene-d8	*93*	*73-120*				
4-Bromofluorobenzene	*76*	*65-120*				

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-22-110811**					
Laboratory ID:	11-068-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	0.65	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	0.36	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	2.5	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	14	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-22-110811**					
Laboratory ID:	11-068-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*82*	*68-120*				
Toluene-d8	*83*	*73-120*				
4-Bromofluorobenzene	*74*	*65-120*				

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2-110811**					
Laboratory ID:	11-068-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	0.32	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	0.92	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	1.5	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	12	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2-110811**					
Laboratory ID:	11-068-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*68-120*				
Toluene-d8	*86*	*73-120*				
4-Bromofluorobenzene	*82*	*65-120*				

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-21-110811**					
Laboratory ID:	11-068-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

HALOGENATED VOLATILES by EPA 8260B
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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-21-110811**					
Laboratory ID:	11-068-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*68-120*				
Toluene-d8	*87*	*73-120*				
4-Bromofluorobenzene	*83*	*65-120*				

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-14-110811**					
Laboratory ID:	11-068-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	2.2	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	0.30	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	0.43	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	6.0	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	26	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

Date of Report: November 15, 2011
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-14-110811**					
Laboratory ID:	11-068-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*80*	*68-120*				
Toluene-d8	*85*	*73-120*				
4-Bromofluorobenzene	*88*	*65-120*				

Date of Report: November 15, 2011
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-20-110811**					
Laboratory ID:	11-068-08					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	0.25	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	0.20	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	0.28	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	2.0	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	24	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

Date of Report: November 15, 2011
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-20-110811**					
Laboratory ID:	11-068-08					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*68-120*				
Toluene-d8	*88*	*73-120*				
4-Bromofluorobenzene	*82*	*65-120*				

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-23-110911**					
Laboratory ID:	11-068-09					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	0.83	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

Date of Report: November 15, 2011
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-23-110911**					
Laboratory ID:	11-068-09					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*68-120*				
Toluene-d8	*87*	*73-120*				
4-Bromofluorobenzene	*81*	*65-120*				

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

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Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-16-110911**					
Laboratory ID:	11-068-10					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	0.22	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

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HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-16-110911**					
Laboratory ID:	11-068-10					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*82*	*68-120*				
Toluene-d8	*82*	*73-120*				
4-Bromofluorobenzene	*76*	*65-120*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-15-110911**					
Laboratory ID:	11-068-11					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	0.21	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	0.41	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	3.5	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-15-110911**					
Laboratory ID:	11-068-11					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*82*	*68-120*				
Toluene-d8	*93*	*73-120*				
4-Bromofluorobenzene	*82*	*65-120*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-19-110911**					
Laboratory ID:	11-068-12					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-19-110911**					
Laboratory ID:	11-068-12					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*81*	*68-120*				
Toluene-d8	*80*	*73-120*				
4-Bromofluorobenzene	*75*	*65-120*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-12-110911**					
Laboratory ID:	11-068-13					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	4.4	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	2.7	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	5.1	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	11	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-12-110911**					
Laboratory ID:	11-068-13					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	0.24	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*68-120*				
Toluene-d8	*86*	*73-120*				
4-Bromofluorobenzene	*83*	*65-120*				

Date of Report: November 15, 2011
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HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1111W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloromethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Vinyl Chloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Trichlorofluoromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Iodomethane	ND	1.0	EPA 8260	11-11-11	11-11-11	
Methylene Chloride	ND	1.0	EPA 8260	11-11-11	11-11-11	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chloroform	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Carbon Tetrachloride	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Trichloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromomethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromodichloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	11-11-11	11-11-11	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	11-11-11	11-11-11	

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1111W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Tetrachloroethene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Dibromochloromethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromoethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Chlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
Bromoform	ND	1.0	EPA 8260	11-11-11	11-11-11	
Bromobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	11-11-11	11-11-11	
2-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
4-Chlorotoluene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	11-11-11	11-11-11	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Hexachlorobutadiene	ND	0.20	EPA 8260	11-11-11	11-11-11	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	11-11-11	11-11-11	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*68-120*				
Toluene-d8	*81*	*73-120*				
4-Bromofluorobenzene	*88*	*65-120*				

Date of Report: November 15, 2011
Samples Submitted: November 9, 2011
Laboratory Reference: 1111-068
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1111W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.4**	**10.9**	10.0	10.0	104	109	70-130	5	11	
Benzene	**10.4**	**9.66**	10.0	10.0	104	97	75-123	7	8	
Trichloroethene	**10.6**	**10.5**	10.0	10.0	106	105	80-113	1	9	
Toluene	**10.4**	**10.2**	10.0	10.0	104	102	80-113	2	8	
Chlorobenzene	**10.6**	**10.4**	10.0	10.0	106	104	80-111	2	8	
Surrogate:										
Dibromofluoromethane					*87*	*79*	*68-120*			
Toluene-d8					*85*	*82*	*73-120*			
4-Bromofluorobenzene					*87*	*78*	*65-120*			

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 2

Company: Farallon
Project Number: 188-002
Project Name: Woodworth
Project Manager: Brani Jurista
Sampled by: E. Erickson, J. Peterson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ________ (other)

Laboratory Number: 11-068

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	Total Metals (As, Pb)	Dissolved Metals (As, Pb) ⊛		% Moisture
1	MW-18-110811	11/8/11	1315	water	3						X														
2	MW-12-110811		1355		2																	~~X~~	~~⊗~~	cancelled PJ 11/10/11	
3	MW-22-110811		1418		3						X														
4	MW-2-110811		1500		3						X														
5	MW-21-110811		1505		3						X														
6	MW-14-110811		1545		3						X														
7	MW-11-110811		1605		2				X																
8	MW-20-110811		1640		3						X														
9	MW-23-110911	11/9/11	0933		3						X														
10	MW-16-110911		1030		3						X														

	Signature	Company	Date	Time
Relinquished	Emerald Erickson	Farallon	11/9/11	1721
Received		OSE	11/9/11	1721
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
⊛ ~~Hold Dissolved Metals.~~ PJ

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ________

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Chain of Custody

Page 2 of 2

Laboratory Number: 11-068

Company: Farallon
Project Number: 188-002
Project Name: Woodworth
Project Manager: Brani Jurista
Sampled by: E. Erickson. J. Peterson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ____________ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
11	MW-15-110911	11/9/11	1137	Water	3						X															
12	MW-19-110911	|	1225	|	|						X															
13	SVE-12-110911	|	1307	|	|						X															

EJEM

	Signature	Company	Date	Time
Relinquished	Emerald Erickson	Farallon	11/9/11	1721
Received		OSE	11/9/11	1721
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions:

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ____________

OnSite
Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 16, 2012

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re:	Analytical Data for Project 188-002
	Laboratory Reference No. 1201-048

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on January 11, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

Case Narrative

Samples were collected on January 10, 2012 and received by the laboratory on January 11, 2012. They were maintained at the laboratory at a temperature of 2^oC to 6^oC.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-18-011012**					
Laboratory ID:	01-048-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloromethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Vinyl Chloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethene	1.1	0.20	EPA 8260	1-12-12	1-12-12	
Iodomethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Methylene Chloride	ND	1.0	EPA 8260	1-12-12	1-12-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethane	0.59	0.20	EPA 8260	1-12-12	1-12-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroform	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1-Trichloroethane	2.8	0.20	EPA 8260	1-12-12	1-12-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Trichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromodichloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	1-12-12	1-12-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-18-011012**					
Laboratory ID:	01-048-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Tetrachloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromoform	ND	1.0	EPA 8260	1-12-12	1-12-12	
Bromobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
4-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	1-12-12	1-12-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*68-120*				
Toluene-d8	*88*	*73-120*				
4-Bromofluorobenzene	*78*	*65-120*				

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-8-011012**					
Laboratory ID:	01-048-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloromethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Vinyl Chloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethene	0.29	0.20	EPA 8260	1-12-12	1-12-12	
Iodomethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Methylene Chloride	ND	1.0	EPA 8260	1-12-12	1-12-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroform	1.1	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1-Trichloroethane	0.80	0.20	EPA 8260	1-12-12	1-12-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Trichloroethene	5.3	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromodichloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	1-12-12	1-12-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**SVE-8-011012**					
Laboratory ID:	01-048-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Tetrachloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromoform	ND	1.0	EPA 8260	1-12-12	1-12-12	
Bromobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
4-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	1-12-12	1-12-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*68-120*				
Toluene-d8	*89*	*73-120*				
4-Bromofluorobenzene	*80*	*65-120*				

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-2-011012**					
Laboratory ID:	01-048-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloromethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Vinyl Chloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethene	0.44	0.20	EPA 8260	1-12-12	1-12-12	
Iodomethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Methylene Chloride	ND	1.0	EPA 8260	1-12-12	1-12-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroform	0.70	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1-Trichloroethane	1.4	0.20	EPA 8260	1-12-12	1-12-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Trichloroethene	11	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromodichloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	1-12-12	1-12-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-2-011012**					
Laboratory ID:	01-048-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Tetrachloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromoform	ND	1.0	EPA 8260	1-12-12	1-12-12	
Bromobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
4-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	1-12-12	1-12-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*68-120*				
Toluene-d8	*91*	*73-120*				
4-Bromofluorobenzene	*86*	*65-120*				

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-14-011012**					
Laboratory ID:	01-048-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloromethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Vinyl Chloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethene	2.2	0.20	EPA 8260	1-12-12	1-12-12	
Iodomethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Methylene Chloride	ND	1.0	EPA 8260	1-12-12	1-12-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethane	0.34	0.20	EPA 8260	1-12-12	1-12-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroform	0.59	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1-Trichloroethane	5.9	0.20	EPA 8260	1-12-12	1-12-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Trichloroethene	24	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromodichloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	1-12-12	1-12-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-14-011012**					
Laboratory ID:	01-048-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Tetrachloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromoform	ND	1.0	EPA 8260	1-12-12	1-12-12	
Bromobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
4-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	1-12-12	1-12-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*68-120*				
Toluene-d8	*95*	*73-120*				
4-Bromofluorobenzene	*87*	*65-120*				

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-6-011012**					
Laboratory ID:	01-048-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloromethane	1.3	1.0	EPA 8260	1-12-12	1-12-12	
Vinyl Chloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethene	0.24	0.20	EPA 8260	1-12-12	1-12-12	
Iodomethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Methylene Chloride	ND	1.0	EPA 8260	1-12-12	1-12-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroform	8.2	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1-Trichloroethane	0.66	0.20	EPA 8260	1-12-12	1-12-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Trichloroethene	5.4	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromodichloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	1-12-12	1-12-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-6-011012**					
Laboratory ID:	01-048-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Tetrachloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromoform	ND	1.0	EPA 8260	1-12-12	1-12-12	
Bromobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
4-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	1-12-12	1-12-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*68-120*				
Toluene-d8	*92*	*73-120*				
4-Bromofluorobenzene	*87*	*65-120*				

Date of Report: January 16, 2012
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-1-011012**					
Laboratory ID:	01-048-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloromethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Vinyl Chloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethene	1.4	0.20	EPA 8260	1-12-12	1-12-12	
Iodomethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Methylene Chloride	ND	1.0	EPA 8260	1-12-12	1-12-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethane	0.28	0.20	EPA 8260	1-12-12	1-12-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroform	0.95	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1-Trichloroethane	2.9	0.20	EPA 8260	1-12-12	1-12-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Trichloroethene	4.0	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromodichloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	1-12-12	1-12-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-1-011012**					
Laboratory ID:	01-048-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Tetrachloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromoform	ND	1.0	EPA 8260	1-12-12	1-12-12	
Bromobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
4-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	1-12-12	1-12-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*68-120*				
Toluene-d8	*89*	*73-120*				
4-Bromofluorobenzene	*83*	*65-120*				

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
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Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0112W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloromethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Vinyl Chloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Iodomethane	ND	1.0	EPA 8260	1-12-12	1-12-12	
Methylene Chloride	ND	1.0	EPA 8260	1-12-12	1-12-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chloroform	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Trichloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromomethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromodichloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	1-12-12	1-12-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	1-12-12	1-12-12	

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0112W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Tetrachloroethene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Dibromochloromethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Chlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
Bromoform	ND	1.0	EPA 8260	1-12-12	1-12-12	
Bromobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	1-12-12	1-12-12	
2-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
4-Chlorotoluene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	1-12-12	1-12-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	1-12-12	1-12-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	1-12-12	1-12-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*68-120*				
Toluene-d8	*87*	*73-120*				
4-Bromofluorobenzene	*81*	*65-120*				

Date of Report: January 16, 2012
Samples Submitted: January 11, 2012
Laboratory Reference: 1201-048
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0112W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.7**	**10.9**	10.0	10.0	107	109	70-130	2	11	
Benzene	**10.1**	**10.5**	10.0	10.0	101	105	75-123	4	8	
Trichloroethene	**9.66**	**9.54**	10.0	10.0	97	95	80-113	1	9	
Toluene	**9.66**	**10.1**	10.0	10.0	97	101	80-113	4	8	
Chlorobenzene	**10.1**	**10.5**	10.0	10.0	101	105	80-111	4	8	
Surrogate:										
Dibromofluoromethane					*80*	*86*	*68-120*			
Toluene-d8					*87*	*89*	*73-120*			
4-Bromofluorobenzene					*79*	*82*	*65-120*			

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Laboratory Number: 01-048

Company: Farallon
Project Number: 188-002
Project Name: Woodworth
Project Manager: Brani Jurista
Sampled by: E.E-Mulamax, J. Peterson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664							% Moisture
1	MW-18 - 011012	01/10/12	1105	water	3						X																
2	~~ME~~ SVE-8 - 011012		1118								X																
3	MW-2 - 011012		1147								X																
4	MW-14 - 011012		1216								X																
5	SVE-6 - 011012		1240								X																
6	SVE-1 - 011012		1320								X																

EJEM

	Signature	Company	Date	Time
Relinquished	Emerald Erickson-Mulamax	Farallon	01/11/12	0809
Received		OnSiteEnv	1/11/12	809
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

February 17, 2012

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re:	Analytical Data for Project 188-002
	Laboratory Reference No. 1202-113

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on February 14, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

Case Narrative

Samples were collected on February 13, 2012 and received by the laboratory on February 14, 2012. They were maintained at the laboratory at a temperature of 2^oC to 6^oC.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-14-021312**					
Laboratory ID:	02-113-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloromethane	2.0	1.0	EPA 8260	2-15-12	2-15-12	
Vinyl Chloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethene	1.6	0.20	EPA 8260	2-15-12	2-15-12	
Iodomethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Methylene Chloride	ND	1.0	EPA 8260	2-15-12	2-15-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroform	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1-Trichloroethane	3.4	0.20	EPA 8260	2-15-12	2-15-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Trichloroethene	11	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromodichloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	2-15-12	2-15-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-14-021312**					
Laboratory ID:	02-113-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Tetrachloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromoform	ND	1.0	EPA 8260	2-15-12	2-15-12	
Bromobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
4-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	2-15-12	2-15-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*86*	*68-120*				
Toluene-d8	*88*	*73-120*				
4-Bromofluorobenzene	*85*	*65-120*				

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-18-021312**					
Laboratory ID:	02-113-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloromethane	1.4	1.0	EPA 8260	2-15-12	2-15-12	
Vinyl Chloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethene	0.28	0.20	EPA 8260	2-15-12	2-15-12	
Iodomethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Methylene Chloride	ND	1.0	EPA 8260	2-15-12	2-15-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroform	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1-Trichloroethane	0.78	0.20	EPA 8260	2-15-12	2-15-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Trichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromodichloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	2-15-12	2-15-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-18-021312**					
Laboratory ID:	02-113-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Tetrachloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromoform	ND	1.0	EPA 8260	2-15-12	2-15-12	
Bromobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
4-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	2-15-12	2-15-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*68-120*				
Toluene-d8	*91*	*73-120*				
4-Bromofluorobenzene	*90*	*65-120*				

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2-021312**					
Laboratory ID:	02-113-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloromethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Vinyl Chloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethene	0.39	0.20	EPA 8260	2-15-12	2-15-12	
Iodomethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Methylene Chloride	ND	1.0	EPA 8260	2-15-12	2-15-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroform	0.70	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1-Trichloroethane	1.5	0.20	EPA 8260	2-15-12	2-15-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Trichloroethene	11	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromodichloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	2-15-12	2-15-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-2-021312**					
Laboratory ID:	02-113-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Tetrachloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromoform	ND	1.0	EPA 8260	2-15-12	2-15-12	
Bromobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
4-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	2-15-12	2-15-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*68-120*				
Toluene-d8	*90*	*73-120*				
4-Bromofluorobenzene	*91*	*65-120*				

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-6-021312**					
Laboratory ID:	02-113-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloromethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Vinyl Chloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Iodomethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Methylene Chloride	ND	1.0	EPA 8260	2-15-12	2-15-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroform	6.3	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1-Trichloroethane	0.56	0.20	EPA 8260	2-15-12	2-15-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Trichloroethene	5.3	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromodichloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	2-15-12	2-15-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
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Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**SVE-6-021312**					
Laboratory ID:	02-113-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Tetrachloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromoform	ND	1.0	EPA 8260	2-15-12	2-15-12	
Bromobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
4-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	2-15-12	2-15-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*68-120*				
Toluene-d8	*89*	*73-120*				
4-Bromofluorobenzene	*87*	*65-120*				

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-1-021312**					
Laboratory ID:	02-113-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloromethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Vinyl Chloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethene	1.1	0.20	EPA 8260	2-15-12	2-15-12	
Iodomethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Methylene Chloride	ND	1.0	EPA 8260	2-15-12	2-15-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethane	0.25	0.20	EPA 8260	2-15-12	2-15-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroform	0.81	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1-Trichloroethane	2.5	0.20	EPA 8260	2-15-12	2-15-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Trichloroethene	7.0	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromodichloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	2-15-12	2-15-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	

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Samples Submitted: February 14, 2012
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HALOGENATED VOLATILES by EPA 8260B

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**SVE-1-021312**					
Laboratory ID:	02-113-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Tetrachloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromoform	ND	1.0	EPA 8260	2-15-12	2-15-12	
Bromobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
4-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	2-15-12	2-15-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*68-120*				
Toluene-d8	*88*	*73-120*				
4-Bromofluorobenzene	*86*	*65-120*				

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-8-021312**					
Laboratory ID:	02-113-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloromethane	1.4	1.0	EPA 8260	2-15-12	2-15-12	
Vinyl Chloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethene	0.33	0.20	EPA 8260	2-15-12	2-15-12	
Iodomethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Methylene Chloride	ND	1.0	EPA 8260	2-15-12	2-15-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroform	0.40	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1-Trichloroethane	0.96	0.20	EPA 8260	2-15-12	2-15-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Trichloroethene	5.6	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromodichloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	2-15-12	2-15-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
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HALOGENATED VOLATILES by EPA 8260B

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**SVE-8-021312**					
Laboratory ID:	02-113-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Tetrachloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromoform	ND	1.0	EPA 8260	2-15-12	2-15-12	
Bromobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
4-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	2-15-12	2-15-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*68-120*				
Toluene-d8	*92*	*73-120*				
4-Bromofluorobenzene	*91*	*65-120*				

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0215W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloromethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Vinyl Chloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Iodomethane	ND	1.0	EPA 8260	2-15-12	2-15-12	
Methylene Chloride	ND	1.0	EPA 8260	2-15-12	2-15-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chloroform	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Trichloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromomethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromodichloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	2-15-12	2-15-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	2-15-12	2-15-12	

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
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HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0215W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Tetrachloroethene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Dibromochloromethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Chlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
Bromoform	ND	1.0	EPA 8260	2-15-12	2-15-12	
Bromobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	2-15-12	2-15-12	
2-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
4-Chlorotoluene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	2-15-12	2-15-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	2-15-12	2-15-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	2-15-12	2-15-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*68-120*				
Toluene-d8	*89*	*73-120*				
4-Bromofluorobenzene	*87*	*65-120*				

Date of Report: February 17, 2012
Samples Submitted: February 14, 2012
Laboratory Reference: 1202-113
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0215W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.4**	**10.3**	10.0	10.0	104	103	70-130	1	11	
Benzene	**9.84**	**10.4**	10.0	10.0	98	104	75-123	6	8	
Trichloroethene	**10.3**	**10.4**	10.0	10.0	103	104	80-113	1	9	
Toluene	**10.4**	**10.4**	10.0	10.0	104	104	80-113	0	8	
Chlorobenzene	**11.3**	**10.9**	10.0	10.0	113	109	80-115	4	8	
Surrogate:										
Dibromofluoromethane					*85*	*91*	*68-120*			
Toluene-d8					*87*	*88*	*73-120*			
4-Bromofluorobenzene					*87*	*87*	*65-120*			

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Laboratory Number: 02-113

Company: Faralloy
Project Number: 188-002
Project Name: Woodworth
Project Manager: Brani Jurista
Sampled by: E. E-Mulanax

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ________ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
1	MW-14-021312	2/13/12	1523	wata	3						X															
2	MW-18 -021312		1200								X															
3	MW-2 -021312		1330								X															
4	SVE-6 -021312		1305								X															
5	SVE-1 -021312		1405								X															
6	SVE-8 -021312		1125								X															

EEM

	Signature	Company	Date	Time
Relinquished		Farallon	2/14/12	0810
Received		OnSite	2/14/12	810
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ________

OnSite
Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 17, 2012

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re:	Analytical Data for Project 188-002
Laboratory Reference No. 1204-059

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on April 10, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 17, 2012
Samples Submitted: April 10, 2012
Laboratory Reference: 1204-059
Project: 188-002

Case Narrative

Samples were collected on April 10, 2012 and received by the laboratory on April 10, 2012. They were maintained at the laboratory at a temperature of 2^{o}C to 6^{o}C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 17, 2012
Samples Submitted: April 10, 2012
Laboratory Reference: 1204-059
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-18**					
Laboratory ID:	04-059-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloromethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Vinyl Chloride	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromomethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloroethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Iodomethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Methylene Chloride	ND	1.0	EPA 8260	4-11-12	4-11-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloroethane	0.30	0.20	EPA 8260	4-11-12	4-11-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromochloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloroform	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,1-Trichloroethane	0.47	0.20	EPA 8260	4-11-12	4-11-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Trichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Dibromomethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromodichloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	4-11-12	4-11-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	

Date of Report: April 17, 2012
Samples Submitted: April 10, 2012
Laboratory Reference: 1204-059
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-18**					
Laboratory ID:	04-059-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Tetrachloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Dibromochloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromoform	ND	1.0	EPA 8260	4-11-12	4-11-12	
Bromobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2-Chlorotoluene	ND	0.20	EPA 8260	4-11-12	4-11-12	
4-Chlorotoluene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	4-11-12	4-11-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*84*	*68-120*				
Toluene-d8	*83*	*73-120*				
4-Bromofluorobenzene	*85*	*65-120*				

Date of Report: April 17, 2012
Samples Submitted: April 10, 2012
Laboratory Reference: 1204-059
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**SVE-8**					
Laboratory ID:	04-059-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloromethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Vinyl Chloride	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromomethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloroethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloroethene	0.30	0.20	EPA 8260	4-11-12	4-11-12	
Iodomethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Methylene Chloride	ND	1.0	EPA 8260	4-11-12	4-11-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromochloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloroform	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,1-Trichloroethane	0.62	0.20	EPA 8260	4-11-12	4-11-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Trichloroethene	4.6	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Dibromomethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromodichloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	4-11-12	4-11-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	

Date of Report: April 17, 2012
Samples Submitted: April 10, 2012
Laboratory Reference: 1204-059
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**SVE-8**					
Laboratory ID:	04-059-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Tetrachloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Dibromochloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromoform	ND	1.0	EPA 8260	4-11-12	4-11-12	
Bromobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2-Chlorotoluene	ND	0.20	EPA 8260	4-11-12	4-11-12	
4-Chlorotoluene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	4-11-12	4-11-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*82*	*68-120*				
Toluene-d8	*85*	*73-120*				
4-Bromofluorobenzene	*87*	*65-120*				

Date of Report: April 17, 2012
Samples Submitted: April 10, 2012
Laboratory Reference: 1204-059
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2**					
Laboratory ID:	04-059-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloromethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Vinyl Chloride	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromomethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloroethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloroethene	0.34	0.20	EPA 8260	4-11-12	4-11-12	
Iodomethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Methylene Chloride	ND	1.0	EPA 8260	4-11-12	4-11-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromochloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloroform	0.30	0.20	EPA 8260	4-11-12	4-11-12	
1,1,1-Trichloroethane	0.80	0.20	EPA 8260	4-11-12	4-11-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Trichloroethene	6.7	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Dibromomethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromodichloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	4-11-12	4-11-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2**					
Laboratory ID:	04-059-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Tetrachloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Dibromochloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromoform	ND	1.0	EPA 8260	4-11-12	4-11-12	
Bromobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2-Chlorotoluene	ND	0.20	EPA 8260	4-11-12	4-11-12	
4-Chlorotoluene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	4-11-12	4-11-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*68-120*				
Toluene-d8	*91*	*73-120*				
4-Bromofluorobenzene	*93*	*65-120*				

Date of Report: April 17, 2012
Samples Submitted: April 10, 2012
Laboratory Reference: 1204-059
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0411W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloromethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Vinyl Chloride	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromomethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloroethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Iodomethane	ND	1.0	EPA 8260	4-11-12	4-11-12	
Methylene Chloride	ND	1.0	EPA 8260	4-11-12	4-11-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromochloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chloroform	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Trichloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Dibromomethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromodichloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	4-11-12	4-11-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	4-11-12	4-11-12	

Date of Report: April 17, 2012
Samples Submitted: April 10, 2012
Laboratory Reference: 1204-059
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0411W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Tetrachloroethene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Dibromochloromethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Chlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
Bromoform	ND	1.0	EPA 8260	4-11-12	4-11-12	
Bromobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	4-11-12	4-11-12	
2-Chlorotoluene	ND	0.20	EPA 8260	4-11-12	4-11-12	
4-Chlorotoluene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	4-11-12	4-11-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	4-11-12	4-11-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	4-11-12	4-11-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*68-120*				
Toluene-d8	*91*	*73-120*				
4-Bromofluorobenzene	*92*	*65-120*				

Date of Report: April 17, 2012
Samples Submitted: April 10, 2012
Laboratory Reference: 1204-059
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	**Result**		**Spike Level**		**Percent Recovery**		**Recovery Limits**	**RPD**	**RPD Limit**	**Flags**
SPIKE BLANKS										
Laboratory ID:	SB0411W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.7**	**11.2**	10.0	10.0	107	112	70-130	5	11	
Benzene	**9.81**	**10.2**	10.0	10.0	98	102	75-123	4	8	
Trichloroethene	**10.1**	**10.1**	10.0	10.0	101	101	80-113	0	9	
Toluene	**10.1**	**10.2**	10.0	10.0	101	102	80-113	1	8	
Chlorobenzene	**11.1**	**11.2**	10.0	10.0	111	112	80-115	1	8	
Surrogate:										
Dibromofluoromethane					*81*	*88*	*68-120*			
Toluene-d8					*84*	*85*	*73-120*			
4-Bromofluorobenzene					*86*	*89*	*65-120*			

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon

Project Number: 188-002

Project Name: Woodworth

Project Manager: Brani Jurista

Sampled by: Emerald Erickson-Mulanax

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day

☐ 2 Days ☐ 3 Days

☒ Standard (7 Days) (TPH analysis 5 Days)

☐ ______ (other)

Laboratory Number: 04-059

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664							% Moisture
1	MW-18	4/10/12	1130	Water	3						X																
2	SVE-8	|	1105	|	|						X																
3	MW-2	|	1215	|	|						X																

EEM

	Signature	Company	Date	Time
Relinquished	Emerald Erickson-Mulanax	Farallon	4/10/12	1743
Received		OnSite Env	4/10/12	1743
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

OnSite
Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 18, 2012

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1205-121

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on May 12, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: May 18, 2012
Samples Submitted: May 12, 2012
Laboratory Reference: 1205-121
Project: 188-002

Case Narrative

Samples were collected on May 11, 2012 and received by the laboratory on May 12, 2012. They were maintained at the laboratory at a temperature of 2^{o}C to 6^{o}C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 18, 2012
Samples Submitted: May 12, 2012
Laboratory Reference: 1205-121
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-3-051112**					
Laboratory ID:	05-121-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chloromethane	ND	1.0	EPA 8260	5-14-12	5-14-12	
Vinyl Chloride	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromomethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chloroethane	ND	1.0	EPA 8260	5-14-12	5-14-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Iodomethane	ND	1.0	EPA 8260	5-14-12	5-14-12	
Methylene Chloride	ND	1.0	EPA 8260	5-14-12	5-14-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromochloromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chloroform	9.8	0.20	EPA 8260	5-14-12	5-14-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Trichloroethene	0.93	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Dibromomethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromodichloromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-14-12	5-14-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-14-12	5-14-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-14-12	5-14-12	

Date of Report: May 18, 2012
Samples Submitted: May 12, 2012
Laboratory Reference: 1205-121
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-3-051112**					
Laboratory ID:	05-121-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Tetrachloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Dibromochloromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromoform	ND	1.0	EPA 8260	5-14-12	5-14-12	
Bromobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
2-Chlorotoluene	ND	0.20	EPA 8260	5-14-12	5-14-12	
4-Chlorotoluene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-14-12	5-14-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*68-120*				
Toluene-d8	*84*	*73-120*				
4-Bromofluorobenzene	*86*	*65-120*				

Date of Report: May 18, 2012
Samples Submitted: May 12, 2012
Laboratory Reference: 1205-121
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-20-051112**					
Laboratory ID:	05-121-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chloromethane	ND	1.0	EPA 8260	5-14-12	5-14-12	
Vinyl Chloride	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromomethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chloroethane	ND	1.0	EPA 8260	5-14-12	5-14-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1-Dichloroethene	0.31	0.20	EPA 8260	5-14-12	5-14-12	
Iodomethane	ND	1.0	EPA 8260	5-14-12	5-14-12	
Methylene Chloride	ND	1.0	EPA 8260	5-14-12	5-14-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromochloromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chloroform	0.38	0.20	EPA 8260	5-14-12	5-14-12	
1,1,1-Trichloroethane	2.9	0.20	EPA 8260	5-14-12	5-14-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Trichloroethene	28	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Dibromomethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromodichloromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-14-12	5-14-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-14-12	5-14-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-14-12	5-14-12	

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-20-051112**					
Laboratory ID:	05-121-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Tetrachloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Dibromochloromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromoform	ND	1.0	EPA 8260	5-14-12	5-14-12	
Bromobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
2-Chlorotoluene	ND	0.20	EPA 8260	5-14-12	5-14-12	
4-Chlorotoluene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-14-12	5-14-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*68-120*				
Toluene-d8	*89*	*73-120*				
4-Bromofluorobenzene	*90*	*65-120*				

Date of Report: May 18, 2012
Samples Submitted: May 12, 2012
Laboratory Reference: 1205-121
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0514W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chloromethane	ND	1.0	EPA 8260	5-14-12	5-14-12	
Vinyl Chloride	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromomethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chloroethane	ND	1.0	EPA 8260	5-14-12	5-14-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Iodomethane	ND	1.0	EPA 8260	5-14-12	5-14-12	
Methylene Chloride	ND	1.0	EPA 8260	5-14-12	5-14-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromochloromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chloroform	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Trichloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Dibromomethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromodichloromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	5-14-12	5-14-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-14-12	5-14-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	5-14-12	5-14-12	

Date of Report: May 18, 2012
Samples Submitted: May 12, 2012
Laboratory Reference: 1205-121
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0514W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Tetrachloroethene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Dibromochloromethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Chlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
Bromoform	ND	1.0	EPA 8260	5-14-12	5-14-12	
Bromobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	5-14-12	5-14-12	
2-Chlorotoluene	ND	0.20	EPA 8260	5-14-12	5-14-12	
4-Chlorotoluene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	5-14-12	5-14-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	5-14-12	5-14-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	5-14-12	5-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*68-120*				
Toluene-d8	*86*	*73-120*				
4-Bromofluorobenzene	*85*	*65-120*				

Date of Report: May 18, 2012
Samples Submitted: May 12, 2012
Laboratory Reference: 1205-121
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	**Result**		**Spike Level**		**Percent Recovery**		**Recovery Limits**	**RPD**	**RPD Limit**	**Flags**
SPIKE BLANKS										
Laboratory ID:	SB0514W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.38**	**9.34**	10.0	10.0	94	93	70-130	0	11	
Benzene	**9.39**	**9.79**	10.0	10.0	94	98	75-123	4	8	
Trichloroethene	**9.60**	**9.69**	10.0	10.0	96	97	80-113	1	9	
Toluene	**9.91**	**10.0**	10.0	10.0	99	100	80-113	1	8	
Chlorobenzene	**11.1**	**11.0**	10.0	10.0	111	110	80-115	1	8	
Surrogate:										
Dibromofluoromethane					*86*	*93*	*68-120*			
Toluene-d8					*84*	*85*	*73-120*			
4-Bromofluorobenzene					*83*	*85*	*65-120*			

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page (of 1

Company: Farallon Consulting LLC
Project Number: 188-002
Project Name: woodworth
Project Manager: Brani J
Sampled by: Jon P

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Laboratory Number: 05-121

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
1	SVE-3-051112	5/11/12	1115	water	3						X															
2	MW-20-051112	|	1130	water	3						X															

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		Farallon	5-11-12	1700	
Received		Farallon	5-11-12	1700	
Relinquished		Farallon	5-12-12	1100	
Received		OnSite E	5/12/12	1100	
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

OnSite
Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 15, 2012

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re:	Analytical Data for Project 188-002
	Laboratory Reference No. 1206-097

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on June 13, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: June 15, 2012
Samples Submitted: June 13, 2012
Laboratory Reference: 1206-097
Project: 188-002

Case Narrative

Samples were collected on June 13, 2012 and received by the laboratory on June 13, 2012. They were maintained at the laboratory at a temperature of 2^oC to 6^oC.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: June 15, 2012
Samples Submitted: June 13, 2012
Laboratory Reference: 1206-097
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-20-061312**					
Laboratory ID:	06-097-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chloromethane	ND	1.0	EPA 8260	6-14-12	6-14-12	
Vinyl Chloride	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromomethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chloroethane	ND	1.0	EPA 8260	6-14-12	6-14-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1-Dichloroethene	0.36	0.20	EPA 8260	6-14-12	6-14-12	
Iodomethane	ND	1.0	EPA 8260	6-14-12	6-14-12	
Methylene Chloride	ND	1.0	EPA 8260	6-14-12	6-14-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromochloromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chloroform	0.37	0.20	EPA 8260	6-14-12	6-14-12	
1,1,1-Trichloroethane	2.5	0.20	EPA 8260	6-14-12	6-14-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Trichloroethene	26	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Dibromomethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromodichloromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	6-14-12	6-14-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	6-14-12	6-14-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	6-14-12	6-14-12	

Date of Report: June 15, 2012
Samples Submitted: June 13, 2012
Laboratory Reference: 1206-097
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-20-061312**					
Laboratory ID:	06-097-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Tetrachloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Dibromochloromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromoform	ND	1.0	EPA 8260	6-14-12	6-14-12	
Bromobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
2-Chlorotoluene	ND	0.20	EPA 8260	6-14-12	6-14-12	
4-Chlorotoluene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	6-14-12	6-14-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*68-120*				
Toluene-d8	*90*	*73-120*				
4-Bromofluorobenzene	*85*	*65-120*				

Date of Report: June 15, 2012
Samples Submitted: June 13, 2012
Laboratory Reference: 1206-097
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-3-061312**					
Laboratory ID:	06-097-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chloromethane	ND	1.0	EPA 8260	6-14-12	6-14-12	
Vinyl Chloride	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromomethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chloroethane	ND	1.0	EPA 8260	6-14-12	6-14-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Iodomethane	ND	1.0	EPA 8260	6-14-12	6-14-12	
Methylene Chloride	ND	1.0	EPA 8260	6-14-12	6-14-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromochloromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chloroform	12	0.20	EPA 8260	6-14-12	6-14-12	
1,1,1-Trichloroethane	0.32	0.20	EPA 8260	6-14-12	6-14-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Trichloroethene	1.2	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Dibromomethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromodichloromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	6-14-12	6-14-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	6-14-12	6-14-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	6-14-12	6-14-12	

Date of Report: June 15, 2012
Samples Submitted: June 13, 2012
Laboratory Reference: 1206-097
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-3-061312**					
Laboratory ID:	06-097-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Tetrachloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Dibromochloromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromoform	ND	1.0	EPA 8260	6-14-12	6-14-12	
Bromobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
2-Chlorotoluene	ND	0.20	EPA 8260	6-14-12	6-14-12	
4-Chlorotoluene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	6-14-12	6-14-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*68-120*				
Toluene-d8	*91*	*73-120*				
4-Bromofluorobenzene	*86*	*65-120*				

Date of Report: June 15, 2012
Samples Submitted: June 13, 2012
Laboratory Reference: 1206-097
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0614W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chloromethane	ND	1.0	EPA 8260	6-14-12	6-14-12	
Vinyl Chloride	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromomethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chloroethane	ND	1.0	EPA 8260	6-14-12	6-14-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Iodomethane	ND	1.0	EPA 8260	6-14-12	6-14-12	
Methylene Chloride	ND	1.0	EPA 8260	6-14-12	6-14-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromochloromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chloroform	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Trichloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Dibromomethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromodichloromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	6-14-12	6-14-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	6-14-12	6-14-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	6-14-12	6-14-12	

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0614W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Tetrachloroethene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Dibromochloromethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Chlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
Bromoform	ND	1.0	EPA 8260	6-14-12	6-14-12	
Bromobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	6-14-12	6-14-12	
2-Chlorotoluene	ND	0.20	EPA 8260	6-14-12	6-14-12	
4-Chlorotoluene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	6-14-12	6-14-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	6-14-12	6-14-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	6-14-12	6-14-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*68-120*				
Toluene-d8	*89*	*73-120*				
4-Bromofluorobenzene	*83*	*65-120*				

Date of Report: June 15, 2012
Samples Submitted: June 13, 2012
Laboratory Reference: 1206-097
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0614W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**8.77**	**8.67**	10.0	10.0	88	87	70-130	1	11	
Benzene	**9.68**	**9.63**	10.0	10.0	97	96	75-123	1	8	
Trichloroethene	**9.82**	**9.69**	10.0	10.0	98	97	80-113	1	9	
Toluene	**9.67**	**9.65**	10.0	10.0	97	97	80-113	0	8	
Chlorobenzene	**10.5**	**10.6**	10.0	10.0	105	106	80-115	1	8	
Surrogate:										
Dibromofluoromethane					*98*	*98*	*68-120*			
Toluene-d8					*89*	*88*	*73-120*			
4-Bromofluorobenzene					*82*	*84*	*65-120*			

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Company: Farallon Consulting
Project Number: 188-002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Emerald Erickson-Mularox

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ____________ (other)

Laboratory Number: 06-097

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
1	MW-20-061312	6/13/12	1240	water	3						X															
2	SNE-3-061312	6/13/12	1310	water	3						X															

EEM

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	Emerald Erickson-Mularox	Farallon	6/13/12	1703	
Received		OSE	6/13/12	1703	
Relinquished					
Received					
Relinquished					
Received					

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ ____________

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

July 25, 2012

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1207-118

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on July 17, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

Case Narrative

Samples were collected on July 16, 2012 and received by the laboratory on July 17, 2012. They were maintained at the laboratory at a temperature of 2^{o}C to 6^{o}C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Halogenated Volatiles EPA 8260B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7^{o}C and -20^{o}C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B2-6.5**					
Laboratory ID:	07-118-02					
Dichlorodifluoromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0058	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B2-6.5**					
Laboratory ID:	07-118-02					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0058	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*63-127*				
Toluene-d8	*94*	*65-129*				
4-Bromofluorobenzene	*104*	*52-125*				

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B2-11.7**					
Laboratory ID:	07-118-03					
Dichlorodifluoromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0059	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0059	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0059	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0059	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0059	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	

HALOGENATED VOLATILES by EPA 8260B
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B2-11.7**					
Laboratory ID:	07-118-03					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0059	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0059	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*63-127*				
Toluene-d8	*92*	*65-129*				
4-Bromofluorobenzene	*89*	*52-125*				

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B2-13.5**					
Laboratory ID:	07-118-04					
Dichlorodifluoromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0058	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B2-13.5**					
Laboratory ID:	07-118-04					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0058	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*63-127*				
Toluene-d8	*97*	*65-129*				
4-Bromofluorobenzene	*105*	*52-125*				

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B3-2.4**					
Laboratory ID:	07-118-05					
Dichlorodifluoromethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0066	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0066	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0066	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0066	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260	7-19-12	7-19-12	

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B3-2.4**					
Laboratory ID:	07-118-05					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0066	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*91*	*63-127*				
Toluene-d8	*99*	*65-129*				
4-Bromofluorobenzene	*106*	*52-125*				

Date of Report: July 25, 2012
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HALOGENATED VOLATILES by EPA 8260B

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Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B3-7.1**					
Laboratory ID:	07-118-06					
Dichlorodifluoromethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0071	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0071	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0071	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0071	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0071	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260	7-19-12	7-19-12	

Date of Report: July 25, 2012
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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B3-7.1**					
Laboratory ID:	07-118-06					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0071	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0071	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*63-127*				
Toluene-d8	*92*	*65-129*				
4-Bromofluorobenzene	*102*	*52-125*				

Date of Report: July 25, 2012
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HALOGENATED VOLATILES by EPA 8260B

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Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B3-7.9**					
Laboratory ID:	07-118-07					
Dichlorodifluoromethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0054	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0054	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0054	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0054	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260	7-19-12	7-19-12	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B3-7.9**					
Laboratory ID:	07-118-07					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0054	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*63-127*				
Toluene-d8	*93*	*65-129*				
4-Bromofluorobenzene	*102*	*52-125*				

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B4-2.9**					
Laboratory ID:	07-118-09					
Dichlorodifluoromethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0063	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0063	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0063	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0063	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260	7-19-12	7-19-12	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B4-2.9**					
Laboratory ID:	07-118-09					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0063	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0063	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*63-127*				
Toluene-d8	*96*	*65-129*				
4-Bromofluorobenzene	*102*	*52-125*				

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Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B4-7.1**					
Laboratory ID:	07-118-12					
Dichlorodifluoromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0052	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0052	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0052	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0052	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0052	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B4-7.1**					
Laboratory ID:	07-118-12					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0052	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*63-127*				
Toluene-d8	*93*	*65-129*				
4-Bromofluorobenzene	*104*	*52-125*				

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
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Project: 188-002

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B5-1.1**					
Laboratory ID:	07-118-13					
Dichlorodifluoromethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0054	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0054	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0054	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0054	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260	7-19-12	7-19-12	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B5-1.1**					
Laboratory ID:	07-118-13					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0054	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*63-127*				
Toluene-d8	*94*	*65-129*				
4-Bromofluorobenzene	*97*	*52-125*				

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B5-1.8**					
Laboratory ID:	07-118-14					
Dichlorodifluoromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0058	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-19-12	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B5-1.8**					
Laboratory ID:	07-118-14					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0058	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*63-127*				
Toluene-d8	*93*	*65-129*				
4-Bromofluorobenzene	*102*	*52-125*				

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Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B6-2.1**					
Laboratory ID:	07-118-16					
Dichlorodifluoromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0050	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0050	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0050	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0050	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Trichloroethene	0.0012	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B6-2.1**					
Laboratory ID:	07-118-16					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0050	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*63-127*				
Toluene-d8	*95*	*65-129*				
4-Bromofluorobenzene	*100*	*52-125*				

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Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B6-9.5**					
Laboratory ID:	07-118-18					
Dichlorodifluoromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0051	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0051	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0051	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0051	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B6-9.5**					
Laboratory ID:	07-118-18					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0051	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*63-127*				
Toluene-d8	*95*	*65-129*				
4-Bromofluorobenzene	*101*	*52-125*				

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
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Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B7-2.2**					
Laboratory ID:	07-118-19					
Dichlorodifluoromethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Chloromethane	ND	0.0059	EPA 8260	7-19-12	7-20-12	
Vinyl Chloride	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Bromomethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Chloroethane	ND	0.0059	EPA 8260	7-19-12	7-20-12	
Trichlorofluoromethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,1-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Iodomethane	ND	0.0059	EPA 8260	7-19-12	7-20-12	
Methylene Chloride	ND	0.0059	EPA 8260	7-19-12	7-20-12	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,1-Dichloroethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
2,2-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Bromochloromethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Chloroform	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Carbon Tetrachloride	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,1-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,2-Dichloroethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Trichloroethene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,2-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Dibromomethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Bromodichloromethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
2-Chloroethyl Vinyl Ether	ND	0.0059	EPA 8260	7-19-12	7-20-12	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260	7-19-12	7-20-12	

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
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Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B7-2.2**					
Laboratory ID:	07-118-19					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Tetrachloroethene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,3-Dichloropropane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Dibromochloromethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,2-Dibromoethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Chlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Bromoform	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Bromobenzene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	7-19-12	7-20-12	
2-Chlorotoluene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
4-Chlorotoluene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
1,2-Dibromo-3-chloropropane	ND	0.0059	EPA 8260	7-19-12	7-20-12	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Hexachlorobutadiene	ND	0.0059	EPA 8260	7-19-12	7-20-12	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	7-19-12	7-20-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*63-127*				
Toluene-d8	*99*	*65-129*				
4-Bromofluorobenzene	*105*	*52-125*				

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B7-7.2**					
Laboratory ID:	07-118-22					
Dichlorodifluoromethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Chloromethane	ND	0.0047	EPA 8260	7-19-12	7-20-12	
Vinyl Chloride	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Bromomethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Chloroethane	ND	0.0047	EPA 8260	7-19-12	7-20-12	
Trichlorofluoromethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,1-Dichloroethene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Iodomethane	ND	0.0047	EPA 8260	7-19-12	7-20-12	
Methylene Chloride	ND	0.0047	EPA 8260	7-19-12	7-20-12	
(trans) 1,2-Dichloroethene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,1-Dichloroethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
2,2-Dichloropropane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
(cis) 1,2-Dichloroethene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Bromochloromethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Chloroform	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,1,1-Trichloroethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Carbon Tetrachloride	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,1-Dichloropropene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,2-Dichloroethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Trichloroethene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,2-Dichloropropane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Dibromomethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Bromodichloromethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
2-Chloroethyl Vinyl Ether	ND	0.0047	EPA 8260	7-19-12	7-20-12	
(cis) 1,3-Dichloropropene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
(trans) 1,3-Dichloropropene	ND	0.00094	EPA 8260	7-19-12	7-20-12	

Date of Report: July 25, 2012
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HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B7-7.2**					
Laboratory ID:	07-118-22					
1,1,2-Trichloroethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Tetrachloroethene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,3-Dichloropropane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Dibromochloromethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,2-Dibromoethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Chlorobenzene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,1,1,2-Tetrachloroethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Bromoform	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Bromobenzene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,1,2,2-Tetrachloroethane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,2,3-Trichloropropane	ND	0.00094	EPA 8260	7-19-12	7-20-12	
2-Chlorotoluene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
4-Chlorotoluene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,3-Dichlorobenzene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,4-Dichlorobenzene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,2-Dichlorobenzene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
1,2-Dibromo-3-chloropropane	ND	0.0047	EPA 8260	7-19-12	7-20-12	
1,2,4-Trichlorobenzene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Hexachlorobutadiene	ND	0.0047	EPA 8260	7-19-12	7-20-12	
1,2,3-Trichlorobenzene	ND	0.00094	EPA 8260	7-19-12	7-20-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*63-127*				
Toluene-d8	*93*	*65-129*				
4-Bromofluorobenzene	*100*	*52-125*				

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B9-2.9**					
Laboratory ID:	07-118-23					
Dichlorodifluoromethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Chloromethane	ND	0.0066	EPA 8260	7-19-12	7-20-12	
Vinyl Chloride	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Bromomethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Chloroethane	ND	0.0066	EPA 8260	7-19-12	7-20-12	
Trichlorofluoromethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,1-Dichloroethene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Iodomethane	ND	0.0066	EPA 8260	7-19-12	7-20-12	
Methylene Chloride	ND	0.0066	EPA 8260	7-19-12	7-20-12	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,1-Dichloroethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
2,2-Dichloropropane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Bromochloromethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Chloroform	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Carbon Tetrachloride	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,1-Dichloropropene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,2-Dichloroethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Trichloroethene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,2-Dichloropropane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Dibromomethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Bromodichloromethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260	7-19-12	7-20-12	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260	7-19-12	7-20-12	

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
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Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**B9-2.9**					
Laboratory ID:	07-118-23					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Tetrachloroethene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,3-Dichloropropane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Dibromochloromethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,2-Dibromoethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Chlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Bromoform	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Bromobenzene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260	7-19-12	7-20-12	
2-Chlorotoluene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
4-Chlorotoluene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260	7-19-12	7-20-12	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Hexachlorobutadiene	ND	0.0066	EPA 8260	7-19-12	7-20-12	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260	7-19-12	7-20-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*63-127*				
Toluene-d8	*97*	*65-129*				
4-Bromofluorobenzene	*105*	*52-125*				

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
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Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B9-7.0**					
Laboratory ID:	07-118-24					
Dichlorodifluoromethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Chloromethane	ND	0.0056	EPA 8260	7-19-12	7-20-12	
Vinyl Chloride	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Bromomethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Chloroethane	ND	0.0056	EPA 8260	7-19-12	7-20-12	
Trichlorofluoromethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,1-Dichloroethene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Iodomethane	ND	0.0056	EPA 8260	7-19-12	7-20-12	
Methylene Chloride	ND	0.0056	EPA 8260	7-19-12	7-20-12	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,1-Dichloroethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
2,2-Dichloropropane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Bromochloromethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Chloroform	0.0014	0.0011	EPA 8260	7-19-12	7-20-12	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Carbon Tetrachloride	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,1-Dichloropropene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,2-Dichloroethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Trichloroethene	0.0033	0.0011	EPA 8260	7-19-12	7-20-12	
1,2-Dichloropropane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Dibromomethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Bromodichloromethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260	7-19-12	7-20-12	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260	7-19-12	7-20-12	

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
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Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**B9-7.0**					
Laboratory ID:	07-118-24					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Tetrachloroethene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,3-Dichloropropane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Dibromochloromethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,2-Dibromoethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Chlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Bromoform	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Bromobenzene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260	7-19-12	7-20-12	
2-Chlorotoluene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
4-Chlorotoluene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260	7-19-12	7-20-12	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Hexachlorobutadiene	ND	0.0056	EPA 8260	7-19-12	7-20-12	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260	7-19-12	7-20-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*63-127*				
Toluene-d8	*95*	*65-129*				
4-Bromofluorobenzene	*91*	*52-125*				

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0719S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloromethane	ND	0.0050	EPA 8260	7-19-12	7-19-12	
Vinyl Chloride	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromomethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloroethane	ND	0.0050	EPA 8260	7-19-12	7-19-12	
Trichlorofluoromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Iodomethane	ND	0.0050	EPA 8260	7-19-12	7-19-12	
Methylene Chloride	ND	0.0050	EPA 8260	7-19-12	7-19-12	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2,2-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromochloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chloroform	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Carbon Tetrachloride	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Trichloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Dibromomethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromodichloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260	7-19-12	7-19-12	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260	7-19-12	7-19-12	

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0719S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Tetrachloroethene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,3-Dichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Dibromochloromethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dibromoethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Chlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromoform	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Bromobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	7-19-12	7-19-12	
2-Chlorotoluene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
4-Chlorotoluene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	7-19-12	7-19-12	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Hexachlorobutadiene	ND	0.0050	EPA 8260	7-19-12	7-19-12	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	7-19-12	7-19-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*63-127*				
Toluene-d8	*95*	*65-129*				
4-Bromofluorobenzene	*106*	*52-125*				

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0719S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0413**	**0.0414**	0.0500	0.0500	83	83	65-141	0	15	
Benzene	**0.0443**	**0.0392**	0.0500	0.0500	89	78	69-121	12	15	
Trichloroethene	**0.0435**	**0.0439**	0.0500	0.0500	87	88	75-120	1	15	
Toluene	**0.0448**	**0.0446**	0.0500	0.0500	90	89	75-120	0	15	
Chlorobenzene	**0.0506**	**0.0499**	0.0500	0.0500	101	100	75-120	1	15	
Surrogate:										
Dibromofluoromethane					*86*	*87*	*63-127*			
Toluene-d8					*89*	*91*	*65-129*			
4-Bromofluorobenzene					*99*	*101*	*52-125*			

Date of Report: July 25, 2012
Samples Submitted: July 17, 2012
Laboratory Reference: 1207-118
Project: 188-002

% MOISTURE

Date Analyzed: 7-19-12

Client ID	Lab ID	% Moisture
B2-6.5	07-118-02	5
B2-11.7	07-118-03	5
B2-13.5	07-118-04	9
B3-2.4	07-118-05	6
B3-7.1	07-118-06	6
B3-7.9	07-118-07	10
B4-2.9	07-118-09	7
B4-7.1	07-118-12	6
B5-1.1	07-118-13	6
B5-1.8	07-118-14	8
B6-2.1	07-118-16	7
B6-9.5	07-118-18	13
B7-2.2	07-118-19	11
B7-7.2	07-118-22	11
B9-2.9	07-118-23	5
B9-7.0	07-118-24	8

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
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Chain of Custody

Page 1 of 3

Company: Farallon Consulting LLC
Project Number: 188-002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Jon Peterson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Laboratory Number: 07-118

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
1	B2-3.1	07/16/12	930	soil	4																					
2	B2-6.5		940								X															X
3	B2-11.7		950								X															X
4	B2-13.5		1000								X															X
5	B3-2.4		1040								X															X
6	B3-7.1		1050								X															X
7	B3-7.9		1100								X															X
8	B3-12.5		1110																							
9	B4-2.9		1225								X															X
10	B4-5.9		1235																							

	Signature	Company	Date	Time
Relinquished		Farallon	7/17/12	1:16
Received		Speedy messenger	7/17/12	1:16
Relinquished		Speedy messenger	7/17/12	2:10
Received		OSE	7/17/12	1410
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions:

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

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Chain of Custody

Page 2 of 3

Laboratory Number: 07-118

Company: Farallon Consulting LLC
Project Number: 168 002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Jon Peterson

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day

☐ 2 Days ☐ 3 Days

☐ Standard (7 Days) (TPH analysis 5 Days)

☐ ______ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
11	B4-6.4	07-16-12	1245	soil	4																					
12	B4-7.1		1255								X															X
13	B5-1.1		1325								X															X
14	B5-1.8		1335								X															X
15	B5-6.9		1345																							
16	B6-2.1		1400								X															X
17	B6-2.8		1410																							
18	B6-9.5		1420								X															X
19	B7-2.2		1445								X															X
20	B7-6.2		1455																							

	Signature	Company	Date	Time
Relinquished		Farallon	7/17/12	1:16
Received		Speedy messenger	7/17/12	1:16
Relinquished		speedy messenger	7/17/12	2:10
Received		OSE	7/17/12	1410
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

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Chain of Custody

Page 3 of 3

Company: Farallon Consulting
Project Number: 188002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Jon P

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ ________ (other)

Laboratory Number: 07-118

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
21	B7 - 6.5	7/16/12	1505	Soil	4																					
22	B7 - 7.2		1515								X															X
23	B9 - 2.9		1615								X															X
24	B9 - 7.0		1625								X															X
25	B9 - 8.7		1635																							

	Signature	Company	Date	Time
Relinquished		Farallon	7/17/12	1:16
Received		Speedy Messenger	7/17/12	1:16
Relinquished		Speedy Messenger	7/17/12	2:10
Received			7/17/12	1410
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ________

OnSite
Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

August 9, 2012

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1208-046

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on August 6, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
Project: 188-002

Case Narrative

Samples were collected on August 6, 2012 and received by the laboratory on August 6, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Halogenated Volatiles EPA 8260B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW25-15.0**					
Laboratory ID:	08-046-03					
Dichlorodifluoromethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Chloromethane	ND	0.0048	EPA 8260	8-7-12	8-7-12	
Vinyl Chloride	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Bromomethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Chloroethane	ND	0.0048	EPA 8260	8-7-12	8-7-12	
Trichlorofluoromethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Iodomethane	ND	0.0048	EPA 8260	8-7-12	8-7-12	
Methylene Chloride	ND	0.0048	EPA 8260	8-7-12	8-7-12	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
2,2-Dichloropropane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Bromochloromethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Chloroform	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Carbon Tetrachloride	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,1-Dichloropropene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,2-Dichloroethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Trichloroethene	0.0036	0.00097	EPA 8260	8-7-12	8-7-12	
1,2-Dichloropropane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Dibromomethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Bromodichloromethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
2-Chloroethyl Vinyl Ether	ND	0.0048	EPA 8260	8-7-12	8-7-12	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260	8-7-12	8-7-12	

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW25-15.0**					
Laboratory ID:	08-046-03					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Tetrachloroethene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,3-Dichloropropane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Dibromochloromethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,2-Dibromoethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Chlorobenzene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Bromoform	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Bromobenzene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260	8-7-12	8-7-12	
2-Chlorotoluene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
4-Chlorotoluene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260	8-7-12	8-7-12	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Hexachlorobutadiene	ND	0.0048	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260	8-7-12	8-7-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*112*	*63-127*				
Toluene-d8	*110*	*65-129*				
4-Bromofluorobenzene	*95*	*52-125*				

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW25-18.0**					
Laboratory ID:	08-046-04					
Dichlorodifluoromethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Chloromethane	ND	0.0046	EPA 8260	8-7-12	8-7-12	
Vinyl Chloride	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Bromomethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Chloroethane	ND	0.0046	EPA 8260	8-7-12	8-7-12	
Trichlorofluoromethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Iodomethane	ND	0.0046	EPA 8260	8-7-12	8-7-12	
Methylene Chloride	ND	0.0046	EPA 8260	8-7-12	8-7-12	
(trans) 1,2-Dichloroethene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
2,2-Dichloropropane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
(cis) 1,2-Dichloroethene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Bromochloromethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Chloroform	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,1,1-Trichloroethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Carbon Tetrachloride	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,1-Dichloropropene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,2-Dichloroethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Trichloroethene	0.019	0.00092	EPA 8260	8-7-12	8-7-12	
1,2-Dichloropropane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Dibromomethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Bromodichloromethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
2-Chloroethyl Vinyl Ether	ND	0.0046	EPA 8260	8-7-12	8-7-12	
(cis) 1,3-Dichloropropene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
(trans) 1,3-Dichloropropene	ND	0.00092	EPA 8260	8-7-12	8-7-12	

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW25-18.0**					
Laboratory ID:	08-046-04					
1,1,2-Trichloroethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Tetrachloroethene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,3-Dichloropropane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Dibromochloromethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,2-Dibromoethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Chlorobenzene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,1,1,2-Tetrachloroethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Bromoform	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Bromobenzene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,1,2,2-Tetrachloroethane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichloropropane	ND	0.00092	EPA 8260	8-7-12	8-7-12	
2-Chlorotoluene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
4-Chlorotoluene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,3-Dichlorobenzene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,4-Dichlorobenzene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,2-Dichlorobenzene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
1,2-Dibromo-3-chloropropane	ND	0.0046	EPA 8260	8-7-12	8-7-12	
1,2,4-Trichlorobenzene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Hexachlorobutadiene	ND	0.0046	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichlorobenzene	ND	0.00092	EPA 8260	8-7-12	8-7-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*111*	*63-127*				
Toluene-d8	*108*	*65-129*				
4-Bromofluorobenzene	*99*	*52-125*				

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
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Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW25-25.0**					
Laboratory ID:	08-046-06					
Dichlorodifluoromethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Chloromethane	ND	0.0058	EPA 8260	8-7-12	8-7-12	
Vinyl Chloride	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Bromomethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Chloroethane	ND	0.0058	EPA 8260	8-7-12	8-7-12	
Trichlorofluoromethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Iodomethane	ND	0.0058	EPA 8260	8-7-12	8-7-12	
Methylene Chloride	ND	0.0058	EPA 8260	8-7-12	8-7-12	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
2,2-Dichloropropane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Bromochloromethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Chloroform	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Carbon Tetrachloride	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1-Dichloropropene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,2-Dichloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Trichloroethene	0.0092	0.0012	EPA 8260	8-7-12	8-7-12	
1,2-Dichloropropane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Dibromomethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Bromodichloromethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260	8-7-12	8-7-12	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260	8-7-12	8-7-12	

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW25-25.0**					
Laboratory ID:	08-046-06					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Tetrachloroethene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,3-Dichloropropane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Dibromochloromethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,2-Dibromoethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Chlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Bromoform	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Bromobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
2-Chlorotoluene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
4-Chlorotoluene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260	8-7-12	8-7-12	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Hexachlorobutadiene	ND	0.0058	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*110*	*63-127*				
Toluene-d8	*109*	*65-129*				
4-Bromofluorobenzene	*96*	*52-125*				

Date of Report: August 9, 2012
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HALOGENATED VOLATILES by EPA 8260B

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Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW25-35.0**					
Laboratory ID:	08-046-08					
Dichlorodifluoromethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Chloromethane	ND	0.0061	EPA 8260	8-7-12	8-7-12	
Vinyl Chloride	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Bromomethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Chloroethane	ND	0.0061	EPA 8260	8-7-12	8-7-12	
Trichlorofluoromethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Iodomethane	ND	0.0061	EPA 8260	8-7-12	8-7-12	
Methylene Chloride	ND	0.0061	EPA 8260	8-7-12	8-7-12	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
2,2-Dichloropropane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Bromochloromethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Chloroform	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Carbon Tetrachloride	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1-Dichloropropene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,2-Dichloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Trichloroethene	0.0058	0.0012	EPA 8260	8-7-12	8-7-12	
1,2-Dichloropropane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Dibromomethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Bromodichloromethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
2-Chloroethyl Vinyl Ether	ND	0.0061	EPA 8260	8-7-12	8-7-12	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260	8-7-12	8-7-12	

HALOGENATED VOLATILES by EPA 8260B

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW25-35.0**					
Laboratory ID:	08-046-08					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Tetrachloroethene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,3-Dichloropropane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Dibromochloromethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,2-Dibromoethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Chlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Bromoform	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Bromobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260	8-7-12	8-7-12	
2-Chlorotoluene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
4-Chlorotoluene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
1,2-Dibromo-3-chloropropane	ND	0.0061	EPA 8260	8-7-12	8-7-12	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Hexachlorobutadiene	ND	0.0061	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260	8-7-12	8-7-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*111*	*63-127*				
Toluene-d8	*108*	*65-129*				
4-Bromofluorobenzene	*98*	*52-125*				

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
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Project: 188-002

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Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW26-2.0**					
Laboratory ID:	08-046-09					
Dichlorodifluoromethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Chloromethane	ND	0.0046	EPA 8260	8-8-12	8-8-12	
Vinyl Chloride	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Bromomethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Chloroethane	ND	0.0046	EPA 8260	8-8-12	8-8-12	
Trichlorofluoromethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,1-Dichloroethene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Iodomethane	ND	0.0046	EPA 8260	8-8-12	8-8-12	
Methylene Chloride	ND	0.0046	EPA 8260	8-8-12	8-8-12	
(trans) 1,2-Dichloroethene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,1-Dichloroethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
2,2-Dichloropropane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
(cis) 1,2-Dichloroethene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Bromochloromethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Chloroform	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,1,1-Trichloroethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Carbon Tetrachloride	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,1-Dichloropropene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,2-Dichloroethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Trichloroethene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,2-Dichloropropane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Dibromomethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Bromodichloromethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
2-Chloroethyl Vinyl Ether	ND	0.0046	EPA 8260	8-8-12	8-8-12	
(cis) 1,3-Dichloropropene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
(trans) 1,3-Dichloropropene	ND	0.00091	EPA 8260	8-8-12	8-8-12	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW26-2.0**					
Laboratory ID:	08-046-09					
1,1,2-Trichloroethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Tetrachloroethene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,3-Dichloropropane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Dibromochloromethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,2-Dibromoethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Chlorobenzene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,1,1,2-Tetrachloroethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Bromoform	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Bromobenzene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,1,2,2-Tetrachloroethane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,2,3-Trichloropropane	ND	0.00091	EPA 8260	8-8-12	8-8-12	
2-Chlorotoluene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
4-Chlorotoluene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,3-Dichlorobenzene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,4-Dichlorobenzene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,2-Dichlorobenzene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
1,2-Dibromo-3-chloropropane	ND	0.0046	EPA 8260	8-8-12	8-8-12	
1,2,4-Trichlorobenzene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Hexachlorobutadiene	ND	0.0046	EPA 8260	8-8-12	8-8-12	
1,2,3-Trichlorobenzene	ND	0.00091	EPA 8260	8-8-12	8-8-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*118*	*63-127*				
Toluene-d8	*104*	*65-129*				
4-Bromofluorobenzene	*89*	*52-125*				

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW26-10.0**					
Laboratory ID:	08-046-10					
Dichlorodifluoromethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Chloromethane	ND	0.0054	EPA 8260	8-7-12	8-7-12	
Vinyl Chloride	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Bromomethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Chloroethane	ND	0.0054	EPA 8260	8-7-12	8-7-12	
Trichlorofluoromethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Iodomethane	ND	0.0054	EPA 8260	8-7-12	8-7-12	
Methylene Chloride	ND	0.0054	EPA 8260	8-7-12	8-7-12	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
2,2-Dichloropropane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Bromochloromethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Chloroform	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Carbon Tetrachloride	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,1-Dichloropropene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,2-Dichloroethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Trichloroethene	0.0027	0.0011	EPA 8260	8-7-12	8-7-12	
1,2-Dichloropropane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Dibromomethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Bromodichloromethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260	8-7-12	8-7-12	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260	8-7-12	8-7-12	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW26-10.0**					
Laboratory ID:	08-046-10					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Tetrachloroethene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,3-Dichloropropane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Dibromochloromethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,2-Dibromoethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Chlorobenzene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Bromoform	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Bromobenzene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260	8-7-12	8-7-12	
2-Chlorotoluene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
4-Chlorotoluene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260	8-7-12	8-7-12	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Hexachlorobutadiene	ND	0.0054	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260	8-7-12	8-7-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*112*	*63-127*				
Toluene-d8	*109*	*65-129*				
4-Bromofluorobenzene	*96*	*52-125*				

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0807S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Chloromethane	ND	0.0050	EPA 8260	8-7-12	8-7-12	
Vinyl Chloride	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Bromomethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Chloroethane	ND	0.0050	EPA 8260	8-7-12	8-7-12	
Trichlorofluoromethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Iodomethane	ND	0.0050	EPA 8260	8-7-12	8-7-12	
Methylene Chloride	ND	0.0050	EPA 8260	8-7-12	8-7-12	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,1-Dichloroethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
2,2-Dichloropropane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Bromochloromethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Chloroform	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Carbon Tetrachloride	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,1-Dichloropropene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,2-Dichloroethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Trichloroethene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,2-Dichloropropane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Dibromomethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Bromodichloromethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260	8-7-12	8-7-12	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260	8-7-12	8-7-12	

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0807S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Tetrachloroethene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,3-Dichloropropane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Dibromochloromethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,2-Dibromoethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Chlorobenzene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Bromoform	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Bromobenzene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	8-7-12	8-7-12	
2-Chlorotoluene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
4-Chlorotoluene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	8-7-12	8-7-12	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Hexachlorobutadiene	ND	0.0050	EPA 8260	8-7-12	8-7-12	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	8-7-12	8-7-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*113*	*63-127*				
Toluene-d8	*112*	*65-129*				
4-Bromofluorobenzene	*101*	*52-125*				

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0808S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Chloromethane	ND	0.0050	EPA 8260	8-8-12	8-8-12	
Vinyl Chloride	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Bromomethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Chloroethane	ND	0.0050	EPA 8260	8-8-12	8-8-12	
Trichlorofluoromethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,1-Dichloroethene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Iodomethane	ND	0.0050	EPA 8260	8-8-12	8-8-12	
Methylene Chloride	ND	0.0050	EPA 8260	8-8-12	8-8-12	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,1-Dichloroethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
2,2-Dichloropropane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Bromochloromethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Chloroform	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Carbon Tetrachloride	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,1-Dichloropropene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,2-Dichloroethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Trichloroethene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,2-Dichloropropane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Dibromomethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Bromodichloromethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260	8-8-12	8-8-12	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260	8-8-12	8-8-12	

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0808S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Tetrachloroethene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,3-Dichloropropane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Dibromochloromethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,2-Dibromoethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Chlorobenzene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Bromoform	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Bromobenzene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260	8-8-12	8-8-12	
2-Chlorotoluene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
4-Chlorotoluene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260	8-8-12	8-8-12	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Hexachlorobutadiene	ND	0.0050	EPA 8260	8-8-12	8-8-12	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260	8-8-12	8-8-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*115*	*63-127*				
Toluene-d8	*114*	*65-129*				
4-Bromofluorobenzene	*102*	*52-125*				

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	**Result**		**Spike Level**		**Percent Recovery**		**Recovery Limits**	**RPD**	**RPD Limit**	**Flags**
SPIKE BLANKS										
Laboratory ID:	SB0807S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0595**	**0.0596**	0.0500	0.0500	119	119	65-141	0	15	
Benzene	**0.0570**	**0.0571**	0.0500	0.0500	114	114	69-121	0	15	
Trichloroethene	**0.0525**	**0.0526**	0.0500	0.0500	105	105	75-120	0	15	
Toluene	**0.0535**	**0.0535**	0.0500	0.0500	107	107	75-120	0	15	
Chlorobenzene	**0.0506**	**0.0506**	0.0500	0.0500	101	101	75-120	0	15	
Surrogate:										
Dibromofluoromethane					*105*	*106*	*63-127*			
Toluene-d8					*105*	*105*	*65-129*			
4-Bromofluorobenzene					*96*	*95*	*52-125*			

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0808S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0614**	**0.0612**	0.0500	0.0500	123	122	65-141	0	15	
Benzene	**0.0581**	**0.0579**	0.0500	0.0500	116	116	69-121	0	15	
Trichloroethene	**0.0528**	**0.0517**	0.0500	0.0500	106	103	75-120	2	15	
Toluene	**0.0547**	**0.0535**	0.0500	0.0500	109	107	75-120	2	15	
Chlorobenzene	**0.0514**	**0.0510**	0.0500	0.0500	103	102	75-120	1	15	
Surrogate:										
Dibromofluoromethane					*107*	*104*	*63-127*			
Toluene-d8					*103*	*103*	*65-129*			
4-Bromofluorobenzene					*92*	*95*	*52-125*			

Date of Report: August 9, 2012
Samples Submitted: August 6, 2012
Laboratory Reference: 1208-046
Project: 188-002

% MOISTURE

Date Analyzed: 8-7-12

Client ID	Lab ID	% Moisture
MW25-15.0	08-046-03	11
MW25-18.0	08-046-04	15
MW25-25.0	08-046-06	14
MW25-35.0	08-046-08	16
MW26-2.0	08-046-09	4
MW26-10.0	08-046-10	7

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Company: Farallon Consulting
Project Number: 1996-002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Evan Eckles, Emerald Erickson-Mulanax

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Laboratory Number: 08-046

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
1	MW25-5.0	8/6/12	0905	Soil	4																					
2	MW25-10.0		0912																							
3	MW25-15.0		0921								X															X
4	MW25-18.0		0925								X															X
5	MW25-21.0		0936																							
6	MW25-25.0		0947								X															X
7	MW25-30.0		0952																							
8	MW25-35.0		1018								X															X
9	MW26-2.0		1204								X															X
10	MW26-10.0		1210								X															X

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	Emerald Erickson-Mulanax	Farallon	8/6/12	1723	
Received		OSE	8/6/12	1723	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

OnSite
Environmental Inc.

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August 15, 2012

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1208-080

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on August 10, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: August 15, 2012
Samples Submitted: August 10, 2012
Laboratory Reference: 1208-080
Project: 188-002

Case Narrative

Samples were collected on August 9, 2012 and received by the laboratory on August 10, 2012. They were maintained at the laboratory at a temperature of 2^{o}C to 6^{o}C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: August 15, 2012
Samples Submitted: August 10, 2012
Laboratory Reference: 1208-080
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-20-080912**					
Laboratory ID:	08-080-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloromethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Vinyl Chloride	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromomethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloroethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloroethene	0.24	0.20	EPA 8260	8-13-12	8-13-12	
Iodomethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Methylene Chloride	ND	1.0	EPA 8260	8-13-12	8-13-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromochloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloroform	0.31	0.20	EPA 8260	8-13-12	8-13-12	
1,1,1-Trichloroethane	1.9	0.20	EPA 8260	8-13-12	8-13-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Trichloroethene	22	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Dibromomethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromodichloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-13-12	8-13-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	

Date of Report: August 15, 2012
Samples Submitted: August 10, 2012
Laboratory Reference: 1208-080
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-20-080912**					
Laboratory ID:	08-080-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Tetrachloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Dibromochloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromoform	ND	1.0	EPA 8260	8-13-12	8-13-12	
Bromobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2-Chlorotoluene	ND	0.20	EPA 8260	8-13-12	8-13-12	
4-Chlorotoluene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-13-12	8-13-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*66-120*				
Toluene-d8	*87*	*70-120*				
4-Bromofluorobenzene	*87*	*63-120*				

Date of Report: August 15, 2012
Samples Submitted: August 10, 2012
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Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-12-080912**					
Laboratory ID:	08-080-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloromethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Vinyl Chloride	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromomethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloroethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloroethene	5.9	0.20	EPA 8260	8-13-12	8-13-12	
Iodomethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Methylene Chloride	ND	1.0	EPA 8260	8-13-12	8-13-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromochloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloroform	0.43	0.20	EPA 8260	8-13-12	8-13-12	
1,1,1-Trichloroethane	5.5	0.20	EPA 8260	8-13-12	8-13-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Trichloroethene	12	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Dibromomethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromodichloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-13-12	8-13-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-12-080912**					
Laboratory ID:	08-080-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Tetrachloroethene	0.26	0.20	EPA 8260	8-13-12	8-13-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Dibromochloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromoform	ND	1.0	EPA 8260	8-13-12	8-13-12	
Bromobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2-Chlorotoluene	ND	0.20	EPA 8260	8-13-12	8-13-12	
4-Chlorotoluene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-13-12	8-13-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*66-120*				
Toluene-d8	*90*	*70-120*				
4-Bromofluorobenzene	*84*	*63-120*				

Date of Report: August 15, 2012
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HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-3-080912**					
Laboratory ID:	08-080-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloromethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Vinyl Chloride	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromomethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloroethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Iodomethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Methylene Chloride	ND	1.0	EPA 8260	8-13-12	8-13-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromochloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloroform	14	0.20	EPA 8260	8-13-12	8-13-12	
1,1,1-Trichloroethane	0.27	0.20	EPA 8260	8-13-12	8-13-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Trichloroethene	1.4	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Dibromomethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromodichloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-13-12	8-13-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**SVE-3-080912**					
Laboratory ID:	08-080-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Tetrachloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Dibromochloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromoform	ND	1.0	EPA 8260	8-13-12	8-13-12	
Bromobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2-Chlorotoluene	ND	0.20	EPA 8260	8-13-12	8-13-12	
4-Chlorotoluene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-13-12	8-13-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*66-120*				
Toluene-d8	*90*	*70-120*				
4-Bromofluorobenzene	*92*	*63-120*				

Date of Report: August 15, 2012
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HALOGENATED VOLATILES by EPA 8260B

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-25-080912**					
Laboratory ID:	08-080-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloromethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Vinyl Chloride	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromomethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloroethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Iodomethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Methylene Chloride	ND	1.0	EPA 8260	8-13-12	8-13-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromochloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloroform	0.46	0.20	EPA 8260	8-13-12	8-13-12	
1,1,1-Trichloroethane	0.26	0.20	EPA 8260	8-13-12	8-13-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Trichloroethene	5.7	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Dibromomethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromodichloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-13-12	8-13-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-25-080912**					
Laboratory ID:	08-080-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Tetrachloroethene	0.26	0.20	EPA 8260	8-13-12	8-13-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Dibromochloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromoform	ND	1.0	EPA 8260	8-13-12	8-13-12	
Bromobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2-Chlorotoluene	ND	0.20	EPA 8260	8-13-12	8-13-12	
4-Chlorotoluene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-13-12	8-13-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*91*	*66-120*				
Toluene-d8	*86*	*70-120*				
4-Bromofluorobenzene	*96*	*63-120*				

Date of Report: August 15, 2012
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HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0813W2					
Dichlorodifluoromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloromethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Vinyl Chloride	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromomethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloroethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Iodomethane	ND	1.0	EPA 8260	8-13-12	8-13-12	
Methylene Chloride	ND	1.0	EPA 8260	8-13-12	8-13-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromochloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chloroform	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Trichloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Dibromomethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromodichloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	8-13-12	8-13-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	8-13-12	8-13-12	

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METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0813W2					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Tetrachloroethene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Dibromochloromethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Chlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
Bromoform	ND	1.0	EPA 8260	8-13-12	8-13-12	
Bromobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	8-13-12	8-13-12	
2-Chlorotoluene	ND	0.20	EPA 8260	8-13-12	8-13-12	
4-Chlorotoluene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	8-13-12	8-13-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	8-13-12	8-13-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	8-13-12	8-13-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*66-120*				
Toluene-d8	*86*	*70-120*				
4-Bromofluorobenzene	*90*	*63-120*				

Date of Report: August 15, 2012
Samples Submitted: August 10, 2012
Laboratory Reference: 1208-080
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
MS/MSD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-072-08										
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	**9.82**	**10.6**	10.0	10.0	ND	98	106	62-141	8	15	
Benzene	**10.5**	**10.6**	10.0	10.0	ND	105	106	78-118	1	15	
Trichloroethene	**9.45**	**9.48**	10.0	10.0	ND	95	95	80-115	0	15	
Toluene	**10.1**	**10.0**	10.0	10.0	ND	101	100	80-116	1	15	
Chlorobenzene	**10.6**	**11.0**	10.0	10.0	ND	106	110	80-118	4	15	
Surrogate:											
Dibromofluoromethane						*93*	*94*	*66-120*			
Toluene-d8						*88*	*86*	*70-120*			
4-Bromofluorobenzene						*90*	*91*	*63-120*			

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

Page 1 of 1

Laboratory Number: 08-080

Company: Farallon
Project Number: 198-002
Project Name: Woodworth Lakeview
Project Manager: Porani Jurista
Sampled by: Evan Eckles, EE-Mulanax

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ________ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
1	MW-20-080912	8/9/12	1652	Water	3						X															
2	SVE-12-080912	|	1120	|	|						X															
3	SVE-3-080912	|	1156	|	|					X															
4	MW-25-080912	|	1400	|	|					X															

	Signature	Company	Date	Time
Relinquished		Farallon	8/10/12	0839
Received		OSE	8/10/12	0839
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions:

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ________

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October 1, 2012

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1209-192

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on September 26, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: October 1, 2012
Samples Submitted: September 26, 2012
Laboratory Reference: 1209-192
Project: 188-002

Case Narrative

Samples were collected on September 24, 2012 and received by the laboratory on September 26, 2012. They were maintained at the laboratory at a temperature of 2^{o}C to 6^{o}C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 1, 2012
Samples Submitted: September 26, 2012
Laboratory Reference: 1209-192
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW25-092412**					
Laboratory ID:	09-192-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Chloromethane	ND	1.0	EPA 8260	9-27-12	9-27-12	
Vinyl Chloride	ND	0.20	EPA 8260	9-27-12	9-27-12	
Bromomethane	ND	1.0	EPA 8260	9-27-12	9-27-12	
Chloroethane	ND	1.0	EPA 8260	9-27-12	9-27-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	9-27-12	9-27-12	
Iodomethane	ND	2.0	EPA 8260	9-27-12	9-27-12	
Methylene Chloride	ND	1.0	EPA 8260	9-27-12	9-27-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	9-27-12	9-27-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	9-27-12	9-27-12	
Bromochloromethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Chloroform	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1,1-Trichloroethane	0.20	0.20	EPA 8260	9-27-12	9-27-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Trichloroethene	3.5	0.20	EPA 8260	9-27-12	9-27-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Dibromomethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Bromodichloromethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	9-27-12	9-27-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	9-27-12	9-27-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	9-27-12	9-27-12	

Date of Report: October 1, 2012
Samples Submitted: September 26, 2012
Laboratory Reference: 1209-192
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW25-092412**					
Laboratory ID:	09-192-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Tetrachloroethene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Dibromochloromethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Chlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Bromoform	ND	1.0	EPA 8260	9-27-12	9-27-12	
Bromobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	9-27-12	9-27-12	
2-Chlorotoluene	ND	0.20	EPA 8260	9-27-12	9-27-12	
4-Chlorotoluene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	9-27-12	9-27-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*66-120*				
Toluene-d8	*105*	*70-120*				
4-Bromofluorobenzene	*104*	*63-120*				

Date of Report: October 1, 2012
Samples Submitted: September 26, 2012
Laboratory Reference: 1209-192
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0927W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Chloromethane	ND	1.0	EPA 8260	9-27-12	9-27-12	
Vinyl Chloride	ND	0.20	EPA 8260	9-27-12	9-27-12	
Bromomethane	ND	1.0	EPA 8260	9-27-12	9-27-12	
Chloroethane	ND	1.0	EPA 8260	9-27-12	9-27-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	9-27-12	9-27-12	
Iodomethane	ND	2.0	EPA 8260	9-27-12	9-27-12	
Methylene Chloride	ND	1.0	EPA 8260	9-27-12	9-27-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	9-27-12	9-27-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	9-27-12	9-27-12	
Bromochloromethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Chloroform	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Trichloroethene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Dibromomethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Bromodichloromethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	9-27-12	9-27-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	9-27-12	9-27-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	9-27-12	9-27-12	

Date of Report: October 1, 2012
Samples Submitted: September 26, 2012
Laboratory Reference: 1209-192
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0927W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Tetrachloroethene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Dibromochloromethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Chlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
Bromoform	ND	1.0	EPA 8260	9-27-12	9-27-12	
Bromobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	9-27-12	9-27-12	
2-Chlorotoluene	ND	0.20	EPA 8260	9-27-12	9-27-12	
4-Chlorotoluene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	9-27-12	9-27-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	9-27-12	9-27-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	9-27-12	9-27-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*66-120*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*105*	*63-120*				

Date of Report: October 1, 2012
Samples Submitted: September 26, 2012
Laboratory Reference: 1209-192
Project: 188-002

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0927W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.8**	**10.1**	10.0	10.0	108	101	65-141	7	15	
Benzene	**10.5**	**9.81**	10.0	10.0	105	98	77-120	7	15	
Trichloroethene	**11.0**	**10.3**	10.0	10.0	110	103	80-120	7	15	
Toluene	**10.9**	**10.3**	10.0	10.0	109	103	80-120	6	15	
Chlorobenzene	**12.0**	**11.4**	10.0	10.0	120	114	80-120	5	15	
Surrogate:										
Dibromofluoromethane					*95*	*96*	*66-120*			
Toluene-d8					*101*	*101*	*70-120*			
4-Bromofluorobenzene					*102*	*102*	*63-120*			

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

Page 1 of ____

Laboratory Number: 09-192

Company: Farallon Consulting LLC

Project Number: 188-002

Project Name: Woodworth

Project Manager: Brani Jurista

Sampled by: Jon P

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day

☐ 2 Days ☐ 3 Days

☒ Standard (7 Days) (TPH analysis 5 Days)

☐ ____________ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
1	MW25-092412	9/24/12	1310	water	3						X															

	Signature	Company	Date	Time
Relinquished		Farallon	9/24/12	1800
Received		OSE	9/26/12	1317
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions:

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ ____________

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December 28, 2012

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1212-157

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on December 21, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: December 28, 2012
Samples Submitted: December 21, 2012
Laboratory Reference: 1212-157
Project: 188-002

Case Narrative

Samples were collected on December 21, 2012 and received by the laboratory on December 21, 2012. They were maintained at the laboratory at a temperature of 2^oC to 6^oC.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: December 28, 2012
Samples Submitted: December 21, 2012
Laboratory Reference: 1212-157
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-26-122112**					
Laboratory ID:	12-157-01					
Dichlorodifluoromethane	ND	0.32	EPA 8260C	12-26-12	12-26-12	
Chloromethane	ND	1.0	EPA 8260C	12-26-12	12-26-12	
Vinyl Chloride	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Bromomethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Chloroethane	ND	1.0	EPA 8260C	12-26-12	12-26-12	
Trichlorofluoromethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1-Dichloroethene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Iodomethane	ND	1.3	EPA 8260C	12-26-12	12-26-12	
Methylene Chloride	ND	1.0	EPA 8260C	12-26-12	12-26-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1-Dichloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
2,2-Dichloropropane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Bromochloromethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Chloroform	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Carbon Tetrachloride	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1-Dichloropropene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2-Dichloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Trichloroethene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2-Dichloropropane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Dibromomethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Bromodichloromethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	12-26-12	12-26-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	12-26-12	12-26-12	

Date of Report: December 28, 2012
Samples Submitted: December 21, 2012
Laboratory Reference: 1212-157
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-26-122112**					
Laboratory ID:	12-157-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Tetrachloroethene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,3-Dichloropropane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Dibromochloromethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2-Dibromoethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Chlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Bromoform	ND	1.0	EPA 8260C	12-26-12	12-26-12	
Bromobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
2-Chlorotoluene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
4-Chlorotoluene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	12-26-12	12-26-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Hexachlorobutadiene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*105*	*66-120*				
Toluene-d8	*97*	*70-120*				
4-Bromofluorobenzene	*91*	*63-120*				

Date of Report: December 28, 2012
Samples Submitted: December 21, 2012
Laboratory Reference: 1212-157
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB1226W1					
Dichlorodifluoromethane	ND	0.32	EPA 8260C	12-26-12	12-26-12	
Chloromethane	ND	1.0	EPA 8260C	12-26-12	12-26-12	
Vinyl Chloride	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Bromomethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Chloroethane	ND	1.0	EPA 8260C	12-26-12	12-26-12	
Trichlorofluoromethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1-Dichloroethene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Iodomethane	ND	1.3	EPA 8260C	12-26-12	12-26-12	
Methylene Chloride	ND	1.0	EPA 8260C	12-26-12	12-26-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1-Dichloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
2,2-Dichloropropane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Bromochloromethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Chloroform	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Carbon Tetrachloride	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1-Dichloropropene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2-Dichloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Trichloroethene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2-Dichloropropane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Dibromomethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Bromodichloromethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	12-26-12	12-26-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	12-26-12	12-26-12	

Date of Report: December 28, 2012
Samples Submitted: December 21, 2012
Laboratory Reference: 1212-157
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1226W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Tetrachloroethene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,3-Dichloropropane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Dibromochloromethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2-Dibromoethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Chlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Bromoform	ND	1.0	EPA 8260C	12-26-12	12-26-12	
Bromobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	12-26-12	12-26-12	
2-Chlorotoluene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
4-Chlorotoluene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	12-26-12	12-26-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Hexachlorobutadiene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	12-26-12	12-26-12	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*66-120*				
Toluene-d8	*103*	*70-120*				
4-Bromofluorobenzene	*96*	*63-120*				

Date of Report: December 28, 2012
Samples Submitted: December 21, 2012
Laboratory Reference: 1212-157
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	**Result**		**Spike Level**		**Percent Recovery**		**Recovery Limits**	**RPD**	**RPD Limit**	**Flags**
SPIKE BLANKS										
Laboratory ID:	SB1226W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**12.6**	**11.6**	10.0	10.0	126	116	65-141	8	15	
Benzene	**10.8**	**10.5**	10.0	10.0	108	105	77-125	3	15	
Trichloroethene	**10.7**	**10.4**	10.0	10.0	107	104	80-125	3	15	
Toluene	**10.8**	**10.8**	10.0	10.0	108	108	80-125	0	15	
Chlorobenzene	**10.8**	**10.4**	10.0	10.0	108	104	80-140	4	15	
Surrogate:										
Dibromofluoromethane					*94*	*103*	*66-120*			
Toluene-d8					*95*	*98*	*70-120*			
4-Bromofluorobenzene					*95*	*90*	*63-120*			

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Company: Farallon
Project Number: 188-002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Emerald Erickson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Laboratory Number: 12-157

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A							% Moisture
1	MW-26-122112	12/21/12	1400	Water	3						X																

	Signature	Company	Date	Time
Relinquished	Emerald Erickson	Farallon	12/21/12	1527
Received		OnSite Env	12/21/12	1527
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ ______

OnSite
Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 16, 2013

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1301-040

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on January 7, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 16, 2013
Samples Submitted: January 7, 2013
Laboratory Reference: 1301-040
Project: 188-002

Case Narrative

Samples were collected on January 5, 2013 and received by the laboratory on January 7, 2013. They were maintained at the laboratory at a temperature of 2^oC to 6^oC.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Halogenated Volatiles EPA 8260C Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7^oC and -20^oC until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: January 16, 2013
Samples Submitted: January 7, 2013
Laboratory Reference: 1301-040
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C

page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-28-25.3**					
Laboratory ID:	01-040-05					
Dichlorodifluoromethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Chloromethane	ND	0.0045	EPA 8260C	1-11-13	1-11-13	
Vinyl Chloride	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Bromomethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Chloroethane	ND	0.0045	EPA 8260C	1-11-13	1-11-13	
Trichlorofluoromethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,1-Dichloroethene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Iodomethane	ND	0.0045	EPA 8260C	1-11-13	1-11-13	
Methylene Chloride	ND	0.0045	EPA 8260C	1-11-13	1-11-13	
(trans) 1,2-Dichloroethene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,1-Dichloroethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
2,2-Dichloropropane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
(cis) 1,2-Dichloroethene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Bromochloromethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Chloroform	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,1,1-Trichloroethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Carbon Tetrachloride	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,1-Dichloropropene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,2-Dichloroethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Trichloroethene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,2-Dichloropropane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Dibromomethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Bromodichloromethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
2-Chloroethyl Vinyl Ether	ND	0.0045	EPA 8260C	1-11-13	1-11-13	
(cis) 1,3-Dichloropropene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
(trans) 1,3-Dichloropropene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	

Date of Report: January 16, 2013
Samples Submitted: January 7, 2013
Laboratory Reference: 1301-040
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-28-25.3**					
Laboratory ID:	01-040-05					
1,1,2-Trichloroethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Tetrachloroethene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,3-Dichloropropane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Dibromochloromethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,2-Dibromoethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Chlorobenzene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,1,1,2-Tetrachloroethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Bromoform	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Bromobenzene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,1,2,2-Tetrachloroethane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,2,3-Trichloropropane	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
2-Chlorotoluene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
4-Chlorotoluene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,3-Dichlorobenzene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,4-Dichlorobenzene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,2-Dichlorobenzene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
1,2-Dibromo-3-chloropropane	ND	0.0045	EPA 8260C	1-11-13	1-11-13	
1,2,4-Trichlorobenzene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Hexachlorobutadiene	ND	0.0045	EPA 8260C	1-11-13	1-11-13	
1,2,3-Trichlorobenzene	ND	0.00090	EPA 8260C	1-11-13	1-11-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*63-127*				
Toluene-d8	*110*	*65-129*				
4-Bromofluorobenzene	*107*	*52-125*				

Date of Report: January 16, 2013
Samples Submitted: January 7, 2013
Laboratory Reference: 1301-040
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C

page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-28-50.3**					
Laboratory ID:	01-040-09					
Dichlorodifluoromethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Chloromethane	ND	0.0042	EPA 8260C	1-11-13	1-11-13	
Vinyl Chloride	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Bromomethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Chloroethane	ND	0.0042	EPA 8260C	1-11-13	1-11-13	
Trichlorofluoromethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,1-Dichloroethene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Iodomethane	ND	0.0042	EPA 8260C	1-11-13	1-11-13	
Methylene Chloride	ND	0.0042	EPA 8260C	1-11-13	1-11-13	
(trans) 1,2-Dichloroethene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,1-Dichloroethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
2,2-Dichloropropane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
(cis) 1,2-Dichloroethene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Bromochloromethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Chloroform	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,1,1-Trichloroethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Carbon Tetrachloride	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,1-Dichloropropene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,2-Dichloroethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Trichloroethene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,2-Dichloropropane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Dibromomethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Bromodichloromethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
2-Chloroethyl Vinyl Ether	ND	0.0042	EPA 8260C	1-11-13	1-11-13	
(cis) 1,3-Dichloropropene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
(trans) 1,3-Dichloropropene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	

Date of Report: January 16, 2013
Samples Submitted: January 7, 2013
Laboratory Reference: 1301-040
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-28-50.3**					
Laboratory ID:	01-040-09					
1,1,2-Trichloroethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Tetrachloroethene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,3-Dichloropropane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Dibromochloromethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,2-Dibromoethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Chlorobenzene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,1,1,2-Tetrachloroethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Bromoform	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Bromobenzene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,1,2,2-Tetrachloroethane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,2,3-Trichloropropane	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
2-Chlorotoluene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
4-Chlorotoluene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,3-Dichlorobenzene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,4-Dichlorobenzene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,2-Dichlorobenzene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
1,2-Dibromo-3-chloropropane	ND	0.0042	EPA 8260C	1-11-13	1-11-13	
1,2,4-Trichlorobenzene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Hexachlorobutadiene	ND	0.0042	EPA 8260C	1-11-13	1-11-13	
1,2,3-Trichlorobenzene	ND	0.00083	EPA 8260C	1-11-13	1-11-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*63-127*				
Toluene-d8	*109*	*65-129*				
4-Bromofluorobenzene	*107*	*52-125*				

Date of Report: January 16, 2013
Samples Submitted: January 7, 2013
Laboratory Reference: 1301-040
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0111S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Chloromethane	ND	0.0050	EPA 8260C	1-11-13	1-11-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Bromomethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Chloroethane	ND	0.0050	EPA 8260C	1-11-13	1-11-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Iodomethane	ND	0.0050	EPA 8260C	1-11-13	1-11-13	
Methylene Chloride	ND	0.0050	EPA 8260C	1-11-13	1-11-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Bromochloromethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Chloroform	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Trichloroethene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Dibromomethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	1-11-13	1-11-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	

Date of Report: January 16, 2013
Samples Submitted: January 7, 2013
Laboratory Reference: 1301-040
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0111S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Chlorobenzene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Bromoform	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Bromobenzene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	1-11-13	1-11-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	1-11-13	1-11-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	1-11-13	1-11-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*111*	*63-127*				
Toluene-d8	*106*	*65-129*				
4-Bromofluorobenzene	*102*	*52-125*				

Date of Report: January 16, 2013
Samples Submitted: January 7, 2013
Laboratory Reference: 1301-040
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	**Result**		**Spike Level**		**Percent Recovery**		**Recovery Limits**	**RPD**	**RPD Limit**	**Flags**
SPIKE BLANKS										
Laboratory ID:	SB0111S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0517**	**0.0546**	0.0500	0.0500	103	109	65-141	5	15	
Benzene	**0.0522**	**0.0559**	0.0500	0.0500	104	112	69-121	7	15	
Trichloroethene	**0.0496**	**0.0525**	0.0500	0.0500	99	105	75-120	6	15	
Toluene	**0.0494**	**0.0522**	0.0500	0.0500	99	104	75-120	6	15	
Chlorobenzene	**0.0529**	**0.0561**	0.0500	0.0500	106	112	75-120	6	15	
Surrogate:										
Dibromofluoromethane					*104*	*111*	*63-127*			
Toluene-d8					*97*	*103*	*65-129*			
4-Bromofluorobenzene					*94*	*102*	*52-125*			

Date of Report: January 16, 2013
Samples Submitted: January 7, 2013
Laboratory Reference: 1301-040
Project: 188-002

% MOISTURE

Date Analyzed: 1-10-13

Client ID	Lab ID	% Moisture
MW-28-25.3	01-040-05	8
MW-28-50.3	01-040-09	11

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 2

Laboratory Number: 01-040

Company: Faralloн
Project Number: 188002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Emerald Erickson-Mulanax

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A							% Moisture
1	MW-28-5.3	1/5/13	1010	Soil	4																						
2	MW-28-10.5	↓	1030	↓	↓																						
3	MW-28-15.3		1035																								
4	MW-28-20.3		1040																								
5	MW-28-25.3		1045								⊗																⊗
6	MW-28-30.3		1050																								
7	MW-28-35.3		1115																								
8	MW-28-40.3		1120																								
9	MW-28-50.3		1130								⊗																⊗
10	MW-28-55.3		1135																								

	Signature	Company	Date	Time
Relinquished	Emerald Erickson-Mulanax	Farallon	1/7/13	0737
Received		OSE	1.7.13	7:37A
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

~~HOLD ALL - WILL CALL WITH ANALYSES.~~ DB

⊗ Added 1/10/13. DB (STA)

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

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Chain of Custody

Page 2 of 2

Laboratory Number: 01-040

Company: Farallon
Project Number: 1888-002
Project Name: Woodworth Lakeview
Project Manager: Brani Jurista
Sampled by: Emerald Erickson-Mulanax

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A							% Moisture
11	MW-28-45.3	1/5/13	1125	soil	4																						

EJEM

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	Emerald Erickson-Mulanax	Farallon	1/7/13	0737	See NOTE on Page 1.
Received	P McMahon	OSE	1.7.13	7:37A	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

OnSite
Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 17, 2013

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1301-091

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on January 14, 2015.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 17, 2013
Samples Submitted: January 14, 2015
Laboratory Reference: 1301-091
Project: 188-002

Case Narrative

Samples were collected on January 12, 2013 and received by the laboratory on January 14, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Halogenated Volatiles EPA 8260C Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: January 17, 2013
Samples Submitted: January 14, 2015
Laboratory Reference: 1301-091
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C

page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-29-35.0**					
Laboratory ID:	01-091-02					
Dichlorodifluoromethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Chloromethane	ND	0.0036	EPA 8260C	1-15-13	1-15-13	
Vinyl Chloride	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Bromomethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Chloroethane	ND	0.0036	EPA 8260C	1-15-13	1-15-13	
Trichlorofluoromethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,1-Dichloroethene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Iodomethane	ND	0.0036	EPA 8260C	1-15-13	1-15-13	
Methylene Chloride	ND	0.0036	EPA 8260C	1-15-13	1-15-13	
(trans) 1,2-Dichloroethene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,1-Dichloroethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
2,2-Dichloropropane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
(cis) 1,2-Dichloroethene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Bromochloromethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Chloroform	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,1,1-Trichloroethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Carbon Tetrachloride	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,1-Dichloropropene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,2-Dichloroethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Trichloroethene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,2-Dichloropropane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Dibromomethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Bromodichloromethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
2-Chloroethyl Vinyl Ether	ND	0.0036	EPA 8260C	1-15-13	1-15-13	
(cis) 1,3-Dichloropropene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
(trans) 1,3-Dichloropropene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	

Date of Report: January 17, 2013
Samples Submitted: January 14, 2015
Laboratory Reference: 1301-091
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-29-35.0**					
Laboratory ID:	01-091-02					
1,1,2-Trichloroethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Tetrachloroethene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,3-Dichloropropane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Dibromochloromethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,2-Dibromoethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Chlorobenzene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,1,1,2-Tetrachloroethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Bromoform	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Bromobenzene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,1,2,2-Tetrachloroethane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,2,3-Trichloropropane	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
2-Chlorotoluene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
4-Chlorotoluene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,3-Dichlorobenzene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,4-Dichlorobenzene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,2-Dichlorobenzene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
1,2-Dibromo-3-chloropropane	ND	0.0036	EPA 8260C	1-15-13	1-15-13	
1,2,4-Trichlorobenzene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Hexachlorobutadiene	ND	0.0036	EPA 8260C	1-15-13	1-15-13	
1,2,3-Trichlorobenzene	ND	0.00073	EPA 8260C	1-15-13	1-15-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*105*	*63-127*				
Toluene-d8	*115*	*65-129*				
4-Bromofluorobenzene	*109*	*52-125*				

Date of Report: January 17, 2013
Samples Submitted: January 14, 2015
Laboratory Reference: 1301-091
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0115S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Chloromethane	ND	0.0050	EPA 8260C	1-15-13	1-15-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Bromomethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Chloroethane	ND	0.0050	EPA 8260C	1-15-13	1-15-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Iodomethane	ND	0.0050	EPA 8260C	1-15-13	1-15-13	
Methylene Chloride	ND	0.0050	EPA 8260C	1-15-13	1-15-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Bromochloromethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Chloroform	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Trichloroethene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Dibromomethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	1-15-13	1-15-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	

Date of Report: January 17, 2013
Samples Submitted: January 14, 2015
Laboratory Reference: 1301-091
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0115S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Chlorobenzene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Bromoform	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Bromobenzene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	1-15-13	1-15-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	1-15-13	1-15-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	1-15-13	1-15-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*104*	*63-127*				
Toluene-d8	*114*	*65-129*				
4-Bromofluorobenzene	*110*	*52-125*				

Date of Report: January 17, 2013
Samples Submitted: January 14, 2015
Laboratory Reference: 1301-091
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	**Result**		**Spike Level**		**Percent Recovery**		**Recovery Limits**	**RPD**	**RPD Limit**	**Flags**
SPIKE BLANKS										
Laboratory ID:	SB0115S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0482**	**0.0489**	0.0500	0.0500	96	98	65-141	1	15	
Benzene	**0.0509**	**0.0513**	0.0500	0.0500	102	103	69-121	1	15	
Trichloroethene	**0.0459**	**0.0465**	0.0500	0.0500	92	93	75-120	1	15	
Toluene	**0.0521**	**0.0522**	0.0500	0.0500	104	104	75-120	0	15	
Chlorobenzene	**0.0506**	**0.0513**	0.0500	0.0500	101	103	75-120	1	15	
Surrogate:										
Dibromofluoromethane					*96*	*94*	*63-127*			
Toluene-d8					*105*	*104*	*65-129*			
4-Bromofluorobenzene					*98*	*99*	*52-125*			

Date of Report: January 17, 2013
Samples Submitted: January 14, 2015
Laboratory Reference: 1301-091
Project: 188-002

% MOISTURE

Date Analyzed: 1-15-13

Client ID	Lab ID	% Moisture
MW-29-35.0	01-091-02	11

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Company: FARALLON
Project Number: 188-002
Project Name: WOODWORTH
Project Manager: BRANI J
Sampled by: DAKER K

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Laboratory Number: 01-091

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A							% Moisture
1	MW-29-20.0	1/12/13	1150	S	4																						
2	MW-29-35.0	|	1205	S	|						ⓧ																ⓧ
3	MW-29-60.0	|	1255	S	|																					

	Signature	Company	Date	Time
Relinquished		FARALLON	1/12/13	1900
Received	Van	Spdy	1/14/13	900
Relinquished	Van	Spdy	1/14/13	1110
Received		OSE	1/14/13	1110
Relinquished				
Received				

Reviewed/Date

Reviewed/Date

Comments/Special Instructions

~~WILL CALL FOR ANALYSIS~~

ⓧ Added 01/14/13. DB (STA)

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

OnSite
Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 21, 2013

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 188-002
Laboratory Reference No. 1301-101

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on January 15, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 21, 2013
Samples Submitted: January 15, 2013
Laboratory Reference: 1301-101
Project: 188-002

Case Narrative

Samples were collected on January 15, 2013 and received by the laboratory on January 15, 2013. They were maintained at the laboratory at a temperature of 2^{o}C to 6^{o}C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 21, 2013
Samples Submitted: January 15, 2013
Laboratory Reference: 1301-101
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-27-011513**					
Laboratory ID:	01-101-01					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	1-17-13	1-17-13	
Chloromethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Vinyl Chloride	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromomethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chloroethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Iodomethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Methylene Chloride	ND	1.0	EPA 8260C	1-17-13	1-17-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromochloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chloroform	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Trichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Dibromomethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromodichloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-17-13	1-17-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	

Date of Report: January 21, 2013
Samples Submitted: January 15, 2013
Laboratory Reference: 1301-101
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-27-011513**					
Laboratory ID:	01-101-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Tetrachloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Dibromochloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromoform	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Bromobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	1-17-13	1-17-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*66-120*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*100*	*63-120*				

Date of Report: January 21, 2013
Samples Submitted: January 15, 2013
Laboratory Reference: 1301-101
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-28-011513**					
Laboratory ID:	01-101-02					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	1-17-13	1-17-13	
Chloromethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Vinyl Chloride	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromomethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chloroethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Iodomethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Methylene Chloride	ND	1.0	EPA 8260C	1-17-13	1-17-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromochloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chloroform	0.37	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Trichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Dibromomethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromodichloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-17-13	1-17-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	

Date of Report: January 21, 2013
Samples Submitted: January 15, 2013
Laboratory Reference: 1301-101
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C

page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-28-011513**					
Laboratory ID:	01-101-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Tetrachloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Dibromochloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromoform	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Bromobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	1-17-13	1-17-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*66-120*				
Toluene-d8	*102*	*70-120*				
4-Bromofluorobenzene	*99*	*63-120*				

Date of Report: January 21, 2013
Samples Submitted: January 15, 2013
Laboratory Reference: 1301-101
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-29-011513**					
Laboratory ID:	01-101-03					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	1-17-13	1-17-13	
Chloromethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Vinyl Chloride	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromomethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chloroethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Iodomethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Methylene Chloride	ND	1.0	EPA 8260C	1-17-13	1-17-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromochloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chloroform	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Trichloroethene	0.22	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Dibromomethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromodichloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-17-13	1-17-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	

Date of Report: January 21, 2013
Samples Submitted: January 15, 2013
Laboratory Reference: 1301-101
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-29-011513**					
Laboratory ID:	01-101-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Tetrachloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Dibromochloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromoform	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Bromobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	1-17-13	1-17-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*66-120*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*96*	*63-120*				

Date of Report: January 21, 2013
Samples Submitted: January 15, 2013
Laboratory Reference: 1301-101
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0117W1					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	1-17-13	1-17-13	
Chloromethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Vinyl Chloride	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromomethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chloroethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Iodomethane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Methylene Chloride	ND	1.0	EPA 8260C	1-17-13	1-17-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromochloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chloroform	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Trichloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Dibromomethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromodichloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	1-17-13	1-17-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	1-17-13	1-17-13	

Date of Report: January 21, 2013
Samples Submitted: January 15, 2013
Laboratory Reference: 1301-101
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0117W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Tetrachloroethene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Dibromochloromethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Chlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Bromoform	ND	1.0	EPA 8260C	1-17-13	1-17-13	
Bromobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	1-17-13	1-17-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	1-17-13	1-17-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	1-17-13	1-17-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	1-17-13	1-17-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*66-120*				
Toluene-d8	*101*	*70-120*				
4-Bromofluorobenzene	*99*	*63-120*				

Date of Report: January 21, 2013
Samples Submitted: January 15, 2013
Laboratory Reference: 1301-101
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	**Result**		**Spike Level**		**Percent Recovery**		**Recovery Limits**	**RPD**	**RPD Limit**	**Flags**
SPIKE BLANKS										
Laboratory ID:	SB0117W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.91**	**9.94**	10.0	10.0	99	99	65-141	0	15	
Benzene	**8.78**	**8.85**	10.0	10.0	88	89	77-125	1	15	
Trichloroethene	**9.51**	**9.61**	10.0	10.0	95	96	80-125	1	15	
Toluene	**9.29**	**9.87**	10.0	10.0	93	99	80-125	6	15	
Chlorobenzene	**10.7**	**10.7**	10.0	10.0	107	107	80-140	0	15	
Surrogate:										
Dibromofluoromethane					*99*	*99*	*66-120*			
Toluene-d8					*99*	*98*	*70-120*			
4-Bromofluorobenzene					*99*	*101*	*63-120*			

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 1

Laboratory Number: 01-101

Company: Faralloon

Project Number: 188-002

Project Name: Woodworth Lakeview

Project Manager: Brani Jurista

Sampled by: Emerald Erikson-Mulanax

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day

☐ 2 Days ☐ 3 Days

☒ Standard (7 Days) (TPH analysis 5 Days)

☐ ____________ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A								% Moisture
1	MW-27-011513	1/15/13	1104	water	3						X																	
2	MW-28-011513	│	1203	│	│						X																	
3	MW-29-011513	│	1309	│	│						X																	

EJEM

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	Emerald Erikson Mulanax	Farallon	1/15/13	1613	
Received		OSE	1/15/13	1613	
Relinquished					
Received					
Relinquished					
Received					

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ____________

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 21, 2013

Brani Jurista
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re:	Analytical Data for Project 188-002
Laboratory Reference No. 1306-117

Dear Brani:

Enclosed are the analytical results and associated quality control data for samples submitted on June 13, 2013.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

Case Narrative

Samples were collected on June 12 and 13, 2013 and received by the laboratory on June 13, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-23-061213**					
Laboratory ID:	06-117-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloromethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Vinyl Chloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Trichlorofluoromethane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Iodomethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Methylene Chloride	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroform	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Trichloroethene	0.64	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromodichloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-23-061213**					
Laboratory ID:	06-117-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Tetrachloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromoform	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Bromobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichloropropane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	6-21-13	6-21-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Hexachlorobutadiene	ND	0.25	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichlorobenzene	ND	0.29	EPA 8260C	6-21-13	6-21-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*62-122*				
Toluene-d8	*95*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-25-061213**					
Laboratory ID:	06-117-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloromethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Vinyl Chloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Trichlorofluoromethane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Iodomethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Methylene Chloride	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroform	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1-Trichloroethane	0.22	0.20	EPA 8260C	6-21-13	6-21-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Trichloroethene	2.7	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromodichloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-25-061213**					
Laboratory ID:	06-117-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Tetrachloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromoform	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Bromobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichloropropane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	6-21-13	6-21-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Hexachlorobutadiene	ND	0.25	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichlorobenzene	ND	0.29	EPA 8260C	6-21-13	6-21-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*91*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2-061213**					
Laboratory ID:	06-117-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloromethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Vinyl Chloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Trichlorofluoromethane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Iodomethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Methylene Chloride	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroform	0.40	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1-Trichloroethane	0.46	0.20	EPA 8260C	6-21-13	6-21-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Trichloroethene	4.6	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromodichloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	

Date of Report: June 24, 2013
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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-2-061213**					
Laboratory ID:	06-117-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Tetrachloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromoform	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Bromobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichloropropane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	6-21-13	6-21-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Hexachlorobutadiene	ND	0.25	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichlorobenzene	ND	0.29	EPA 8260C	6-21-13	6-21-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*62-122*				
Toluene-d8	*95*	*70-120*				
4-Bromofluorobenzene	*94*	*71-120*				

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
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HALOGENATED VOLATILES by EPA 8260C

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-14-061213**					
Laboratory ID:	06-117-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloromethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Vinyl Chloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Trichlorofluoromethane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethene	0.75	0.20	EPA 8260C	6-21-13	6-21-13	
Iodomethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Methylene Chloride	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroform	3.0	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1-Trichloroethane	2.3	0.20	EPA 8260C	6-21-13	6-21-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Trichloroethene	10	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromodichloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	

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HALOGENATED VOLATILES by EPA 8260C

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-14-061213**					
Laboratory ID:	06-117-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Tetrachloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromoform	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Bromobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichloropropane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	6-21-13	6-21-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Hexachlorobutadiene	ND	0.25	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichlorobenzene	ND	0.29	EPA 8260C	6-21-13	6-21-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
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HALOGENATED VOLATILES by EPA 8260C

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SVE-12-061213**					
Laboratory ID:	06-117-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloromethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Vinyl Chloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Trichlorofluoromethane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethene	4.1	0.20	EPA 8260C	6-21-13	6-21-13	
Iodomethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Methylene Chloride	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroform	0.36	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1-Trichloroethane	3.6	0.20	EPA 8260C	6-21-13	6-21-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Trichloroethene	6.4	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromodichloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**SVE-12-061213**					
Laboratory ID:	06-117-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Tetrachloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromoform	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Bromobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichloropropane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	6-21-13	6-21-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Hexachlorobutadiene	ND	0.25	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichlorobenzene	ND	0.29	EPA 8260C	6-21-13	6-21-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*62-122*				
Toluene-d8	*95*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-22-061213**					
Laboratory ID:	06-117-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloromethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Vinyl Chloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Trichlorofluoromethane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethene	0.45	0.20	EPA 8260C	6-21-13	6-21-13	
Iodomethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Methylene Chloride	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroform	0.31	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1-Trichloroethane	2.3	0.20	EPA 8260C	6-21-13	6-21-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Trichloroethene	12	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromodichloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-22-061213**					
Laboratory ID:	06-117-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Tetrachloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromoform	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Bromobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichloropropane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	6-21-13	6-21-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Hexachlorobutadiene	ND	0.25	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichlorobenzene	ND	0.29	EPA 8260C	6-21-13	6-21-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*62-122*				
Toluene-d8	*93*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C

page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-20-061213**					
Laboratory ID:	06-117-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloromethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Vinyl Chloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Trichlorofluoromethane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Iodomethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Methylene Chloride	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroform	0.30	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1-Trichloroethane	2.0	0.20	EPA 8260C	6-21-13	6-21-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Trichloroethene	20	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromodichloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
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HALOGENATED VOLATILES by EPA 8260C

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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Client ID:	**MW-20-061213**					
Laboratory ID:	06-117-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Tetrachloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromoform	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Bromobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichloropropane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	6-21-13	6-21-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Hexachlorobutadiene	ND	0.25	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichlorobenzene	ND	0.29	EPA 8260C	6-21-13	6-21-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*62-122*				
Toluene-d8	*94*	*70-120*				
4-Bromofluorobenzene	*92*	*71-120*				

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Matrix: Water
Units: ug/L

Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0621W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloromethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Vinyl Chloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Trichlorofluoromethane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Iodomethane	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Methylene Chloride	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chloroform	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Trichloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromomethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromodichloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	6-21-13	6-21-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	6-21-13	6-21-13	

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
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Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	**Result**	**PQL**	**Method**	**Date Prepared**	**Date Analyzed**	**Flags**
Laboratory ID:	MB0621W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Tetrachloroethene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Dibromochloromethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Chlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Bromoform	ND	1.0	EPA 8260C	6-21-13	6-21-13	
Bromobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichloropropane	ND	0.26	EPA 8260C	6-21-13	6-21-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260C	6-21-13	6-21-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	6-21-13	6-21-13	
Hexachlorobutadiene	ND	0.25	EPA 8260C	6-21-13	6-21-13	
1,2,3-Trichlorobenzene	ND	0.29	EPA 8260C	6-21-13	6-21-13	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*62-122*				
Toluene-d8	*96*	*70-120*				
4-Bromofluorobenzene	*93*	*71-120*				

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

HALOGENATED VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	**Result**		**Spike Level**		**Percent Recovery**		**Recovery Limits**	**RPD**	**RPD Limit**	**Flags**
SPIKE BLANKS										
Laboratory ID:	SB0621W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.20**	**8.19**	10.0	10.0	92	82	63-142	12	17	
Benzene	**9.55**	**8.72**	10.0	10.0	96	87	78-125	9	15	
Trichloroethene	**9.12**	**8.18**	10.0	10.0	91	82	80-125	11	15	
Toluene	**10.0**	**9.04**	10.0	10.0	100	90	80-125	10	15	
Chlorobenzene	**11.2**	**10.3**	10.0	10.0	112	103	80-140	8	15	
Surrogate:										
Dibromofluoromethane					*85*	*85*	*62-122*			
Toluene-d8					*94*	*95*	*70-120*			
4-Bromofluorobenzene					*89*	*94*	*71-120*			

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

TOTAL METALS
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	06-117-08					
Client ID:	**MW-12-061313**					
Arsenic	**8.4**	3.3	200.8	6-14-13	6-14-13	
Lead	**17**	1.1	200.8	6-14-13	6-14-13	

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

TOTAL METALS
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Extracted:	6-14-13
Date Analyzed:	6-14-13
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB0614WM1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.3
Lead	200.8	**ND**	1.1

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

TOTAL METALS
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Extracted:	6-14-13
Date Analyzed:	6-14-13
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-095-03

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.3	
Lead	**3.31**	**2.62**	23	1.1	C

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

TOTAL METALS
EPA 200.8
MS/MSD QUALITY CONTROL

Date Extracted: 6-14-13
Date Analyzed: 6-14-13

Matrix: Water
Units: ug/L (ppb)

Lab ID: 06-095-03

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	111	**113**	102	**112**	101	1	
Lead	111	**117**	102	**115**	101	1	

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

DISSOLVED METALS
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	06-117-08					
Client ID:	**MW-12-061313**					
Arsenic	**8.4**	3.0	200.8	6-13-13	6-13-13	
Lead	**13**	1.0	200.8	6-13-13	6-13-13	

DISSOLVED METALS
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Filtered:	6-13-13
Date Analyzed:	6-13-13
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB0613F1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0
Lead	200.8	**ND**	1.0

Date of Report: June 24, 2013
Samples Submitted: June 13, 2013
Laboratory Reference: 1306-117
Project: 188-002

DISSOLVED METALS
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Filtered: 6-13-13
Date Analyzed: 6-13-13

Matrix: Water
Units: ug/L (ppb)

Lab ID: 06-067-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	3.0	
Lead	**ND**	**ND**	NA	1.0	

DISSOLVED METALS
EPA 200.8
MS/MSD QUALITY CONTROL

Date Filtered:	6-13-13
Date Analyzed:	6-13-13
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-067-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**207**	103	**205**	103	1	
Lead	200	**205**	102	**205**	103	0	

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical ____________.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Analytical Laboratory Testing Services
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Chain of Custody

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Laboratory Number: 06-117

Company: FARALLON
Project Number: 188-002
Project Name: LAkeview FAcility
Project Manager: BrAni JuristA
Sampled by: Ken Scott

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ ______ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	Total As + Pb	Dissolved As + Pb					% Moisture
1	MW-23-061213	6/12/13	1130	W	3						X																
2	MW-25-061213		1215	W	3						X																
3	MW-2-061213		1305	W	3						X																
4	MW-14-061213		1350	W	3						X																
5	SVE-12-061213		1425	W	3						X																
6	MW-22-061213		1505	W	3						X																
7	MW-20-061213	↓	1600	W	3						X																
8	MW-12-061313	6/13/13	1045	W	5																X	X					
											KS																

	Signature	Company	Date	Time
Relinquished	Ken Scott	FARALLON	6/13/13	1310
Received		OSE	6/13/13	1310
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
sAmple MW-12-061313 WAS Not field filtered, please filter ASAP.

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ ______

APPENDIX D
INDOOR AIR SIMULATION RESULTS

FOCUSED FEASIBILITY STUDY/
DISPROPORTIONATE COST ANALYSIS REPORT
Lakeview Facility
2800 104th Street Court South
Lakewood, Washington

Farallon PN: 188-002

INDOOR AIR SIMULATION RESULTS

Tier 1 screening assessment included development of Site-specific groundwater screening levels that would be protective of the indoor air exposure pathway for a commercial exposure scenario using the Johnson and Ettinger vapor intrusion model (JEM) presented in the U.S. Environmental Protection Agency (EPA)(2012) online tool in accordance with the Ecology Draft *Guidance for Evaluating Soil gas Intrusion in Washington State: Investigation and Remediation, Publication No. 09-09-047* dated October 2009 (Draft Vapor Intrusion Guidance). Farallon compared the conservative groundwater TCE concentrations detected in shallow and deep water-bearing zones groundwater to JEM-generated groundwater screening levels that are protective of indoor air exposure to TCE in commercial setting. The process included the following steps:

1) Calculating the Washington State Model Toxics Control Act (MTCA) Method B indoor air cleanup level for TCE for commercial scenario;

2) Calculating the groundwater-to-indoor-air attenuation factors and high indoor air predictions for TCE from JEM;

3) Calculating groundwater screening levels that are protective of the MTCA Method B indoor air cleanup level; and

4) Comparing the highest TCE concentrations detected in shallow and deep water-bearing zones groundwater to JEM-generated groundwater screening levels considered protective of indoor air at a concentration equivalent to the commercial MTCA Method B indoor air cleanup level.

1) Commercial MTCA Method B Indoor Air Cleanup Level

To determine modified MTCA Method B indoor air cleanup levels, the exposure inputs were adjusted to reflect a workplace scenario with workers on location for 8 hours per day, 250 days a year for a total of 2,000 working hours per year (Table D-1, this appendix). The Exposure Frequency factor was therefore changed from 1.0 (unitless) to 0.23 (unitless) to reflect the ratio of 2,000 annual working hours to 8,760 total hours in a year. Further, the Exposure Duration variable was adjusted from 30 years for the carcinogen residential exposure scenario (Equation

750-2) to 25 years. The Averaging Time factor was adjusted to be equal to the Exposure Duration factors for the non-carcinogen exposure scenario. The Average Body Weight factor for the carcinogen exposure scenario of 70 kilograms was used to reflect exposure to an adult worker. The Air Breathing Rate factor for the carcinogen exposure scenario of 20 cubic meters per day was used to reflect exposure to an adult worker. Farallon used the Inhalation Cancer Potency Factor of 0.0235 kilograms-day per milligram for TCE based on the recent changes to the Cleanup Levels and Risk Calculations (CLARC) database (Ecology 2014). These changes are based on February 2012 updates to the EPA Integrated Risk Information System (IRIS) database regarding toxicological data for TCE. Table D-1 of this appendix provides the default and modified MTCA Method B cleanup levels for indoor air for TCE and the input parameters used in Equation 750-2 to modify the cleanup levels for a commercial exposure scenario. The commercial exposure scenario is the applicable cleanup standard for the Site. The modified MTCA Method B indoor air cleanup level for TCE is calculated at 1.94 µg/m^3 (Table D-1, this appendix).

2) Groundwater-to-Indoor-Air Attenuation Factors

To develop groundwater screening levels protective of the groundwater to indoor air pathway, Farallon followed the Ecology procedures outlined in the Draft Vapor Intrusion Guidance for use in the JEM. Table D-2 of Appendix D in the Draft Vapor Intrusion Guidance and Table D-2 in this appendix provides the procedures for use of the JEM to develop a groundwater-to-indoor-air attenuation factor, which can then be applied to calculate a site-specific groundwater concentration for TCE protective of indoor air based on the MTCA Method B indoor air cleanup level.

As cited above, for the Site-specific assessment Farallon used the calculated MTCA Method B indoor air cleanup level for TCE for a commercial exposure scenario. Site-specific inputs used for the JEM assessment included: an average depth to groundwater for the shallow and deep water-bearing zones at remediation well SVE-12 and monitoring well MW-20, adjusted for the depth following Site reclamation; soil type; building type; and groundwater temperature of 13 degrees Celsius. The Site-specific model inputs included the following:

- The COC was TCE;

- The maximum concentration of TCE detected in groundwater samples collected from shallow water-bearing zone remediation well SVE-12 of 15 µg/l;
- The current maximum concentration of TCE detected in a groundwater sample collected from deep water-bearing zone monitoring well MW-20 of 20 µg/l;
- Depth to groundwater was assumed to be 41 feet bgs plus or minus 2 feet for remediation well SVE-12 and 55 feet bgs plus or minus 5 feet for monitoring well MW-20;
- Average groundwater temperature was 13 degrees Celsius;
- The soil type was loamy sand; and
- The building type was slab-on-grade.

The Forward Calculation of Indoor Air Concentration version of the JEM was run for each of the water-bearing zones using the assumptions outlined above to derive groundwater-to-indoor-air attenuation factors and a corresponding estimate of indoor air concentration predictions at the highest groundwater concentration for TCE for each of the two wells considered representative of each water-bearing zone. Indoor air results calculated by JEM are included in this Appendix. JEM predicted a groundwater-to-indoor air attenuation factors for TCE of 0.0002561 and 0.0002209 for the shallow and deep water-bearing zones, respectively. The JEM "best estimate high indoor air concentrations" were 1.054 micrograms per cubic meter (µg/m^3) and 1.268 µg/m^3 for the shallow and deep water-bearing zones, respectively. These conservative results for indoor air do not exceed the target MTCA Method B commercial indoor air cleanup level of 1.94 µg/m^3.

3) Groundwater Screening Level Calculations

Site-specific groundwater concentrations that would be protective of the MTCA Method B indoor air cleanup level for a commercial exposure scenario were calculated based on the groundwater-to-indoor-air attenuation factors following the procedures outlined in Table D-2 of the Draft Vapor Intrusion Guidance and Table D-2 in this appendix based on the following equation:

$$INPUT_1 = (CUL \text{ X } INPUT_0) / IAP$$

Where:

$INPUT_1$ = Groundwater concentration corresponding to a predicted indoor air concentration equal to the MTCA Method B or Modified Method B indoor air cleanup level.

CUL = MTCA Method B or Modified Method B indoor air cleanup level.

$INPUT_0$ = Groundwater concentration used to develop groundwater to indoor air attenuation factor calculated in Step 2.

IAP = Predicted indoor air concentration from Step 2.

The input parameters used to calculate groundwater concentrations protective of the calculated MTCA Method B indoor air cleanup level for commercial exposure scenario for TCE in the shallow and deep water-bearing zones are provided in Table D-2 of this appendix. The Site-specific groundwater screening level concentrations calculated by the JEM to be protective of the MTCA Method B indoor air cleanup levels for commercial exposure scenario are:

- 27.6 μg/l for TCE in shallow water-bearing zone; and
- 30.6 μg/l for TCE in deep water-bearing zone.

4) Comparison of Detected TCE Concentrations to Calculated Screening Levels

The maximum concentration of TCE of detected in groundwater samples collected from shallow water-bearing zone remediation well SVE-12 since September 2009 is 15 μg/l, which is less than the groundwater screening level concentration of 27.6 μg/l calculated by the JEM (Table D-2, this appendix). The current maximum concentration of TCE of detected in groundwater samples collected from deep water-bearing zone monitoring well MW-20 is 20 µg/l, which is less than the groundwater screening level concentration of 30.6 µg/l calculated by the JEM (Table D-2, this appendix). The Site-specific Tier I vapor intrusion assessment demonstrates that the under a conservative evaluation scenario using the highest concentrations of TCE, the groundwater to indoor pathway is not complete. Potential future commercial buildings that could be constructed on the Site following the completion of the reclamation activities will not be at risk for vapor intrusion from TCE in groundwater.

Appendix D—Table D-1
MTCA Method B and Modified Method B Air Cleanup Level Calculations
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Carcinogen, Eq. 750-2			**TCE**
Parameters		**Units**	**Default MTCA Method B Values**
Carcinogenic Risk	RISK	unitless	0.000001
Inhalation Cancer Potency Factor	CPF1	kg-day/mg	0.0235 [2]
Average Body Weight	ABW	kg	70
Averaging Time	AT	years	75
Exposure Duration	ED	years	30
Exposure Frequency	EF	unitless	1
Air Breathing Rate	BR	m^3/day	20
Inhalation Absorption Fraction	ABS1	unitless	1
Unit Conversion Factor	UCF	µg/mg	1000

$$\textbf{Cleanup Level}^1 = \frac{\textbf{RISK x ABW xAT xUCF}}{\textbf{CPF x BR x ED x EF x ABS}}$$

Exposure Duration

Default: 30 years

Modified: **25** year working span

Exposure Frequency

Default: 1

Modified: 365 days per year * 24 hours per day = 8,760 hours/year
250 days per year * 8 hours per day = 2,000 hours/year

2,000/8,760 = **0.23**

Carcinogen, Eq. 750-2			**TCE**	
Parameters		**Units**	**Default**	**Modified**
Carcinogenic Risk	RISK	unitless	0.000001	0.000001
Inhalation Cancer Potency Factor	CPF1	kg-day/mg	0.0235 [2]	0.0235 [2]
Average Body Weight	ABW	kg	70	70
Averaging Time	AT	years	75	75
Exposure Duration	ED	years	30	25
Exposure Frequency	EF	unitless	1	0.23
Air Breathing Rate	BR	m^3/day	20	20
Inhalation Absorption Fraction	ABS1	unitless	1	1
Unit Conversion Factor	UCF	µg/mg	1000	1000
MTCA Method B Air Cleanup Level (µg/m^3)			**0.37**	**1.94**

NOTES:

[1] Equation 750-2 of Section 750 of Chapter 173-340 of the Washington Administrative Code.

[2] Inhalation Cancer Potency Factor for TCE as revised by U.S. Environmental Protection Agency in the Integrated Risk Information System (IRIS) database in February 2012.

kg = kilograms
m^3/day = cubic meters per day
mg/kg-day = milligrams per kilogram per day
µg/mg = micrograms per milligram
µg/m^3 = micrograms per cubic meter
MTCA = Washington State Model Toxics Control Act Cleanup Regulation
TCE = trichloroethene

Appendix D—Table D-2
Johnson and Ettinger Screening Level Model Results
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

			Shallow Water-Bearing Zone Remediation Well SVE-12	Deep Water-Bearing Zone Monitoring Well MW-20
Commercial Exposure Scenario	**Acronym**	**Units**	**TCE**	**TCE**
Calculated MTCA Method B Indoor Air Cleanup Level[1]	CUL	$\mu g/m^3$	1.94	1.94
Predicted J&E Attenuation Factor[2]		unitless	0.0002561	0.0002209
Maximum Groundwater Concentration[3]	$INPUT_0$	µg/l	15	20
High Indoor Air Prediction[4]	IAP	$\mu g/m^3$	1.054	1.268
Protective Groundwater Concentration[5,6]	$INPUT_1$	µg/l	**27.6**	**30.6**

NOTES:

[1] Lesser of carcinogen or noncarcinogen cleanup level

[2] Johnson and Ettinger model simulation groundwater to indoor air attenuation factor

[3] Groundwater concentration used to develop groundwater to indoor air attenuation factor

[4] Calculated by the Johnson and Ettinger model

[5] At MTCA Method B indoor air cleanup level

[6] $INPUT_1 = (CUL \text{ X } INPUT_0) / IAP$

µg/l = micrograms per liter
$\mu g/m^3$ = micrograms per cubic meter
MTCA = Washington State Model Toxics Control Act Cleanup Regulation
MW = monitoring well
SVE = soil vapor extraction
TCE = trichloroethene

INDOOR AIR SIMULATION RESULTS

Screening-Level Johnson and Ettinger Model

Shallow Water-Bearing Zone - SVE-12

Site Name: Lakeview Facility 188-002 Shallow Water-Bearing Zone
Report Date: Thu Mar 20 12:05:41 PDT 2014
Report Generated From: http://www.epa.gov/athens/learn2model/part-two/onsite/JnE_lite_forward.htm
Type of sample: GROUND WATER Concentration = 15[µg/L]
Depth to ground water table: 41ft +/- 2ft
Average soil/ground water temperature: 13C

CHEMICAL PROPERTIES

Chemical of Concern: Trichloroethylene CAS Number: 79016
Molecular Weight: 131.39 [g/mole] Henrys Constant: 0.2394295 [unitless]
Diffusivity in Air: 7.900e-2 [cm^2/sec] Diffusivity in Water: 9.100e-6 [cm^2/sec]
Unit Risk Factor: 0.00011 [$(\mu g/m^3)^{-1}$] Reference Concentration: 0.04 [mg/m^3]

SOIL PROPERTIES

Soil Type: Loamy Sand Total Porosity: 0.39
Unsaturated Zone Moisture Content:
low= 0.049 best estimate= 0.076 high= 0.1
Capillary Zone Moisture Content: 0.303 Height of Capillary Rise: 0.188 [m]
Soil-Gas Flow Rate into Building: 5 [L/min]

BUILDING PROPERTIES

Building Type: Slab-on-Grade Air Exchange Rate: 0.25[hr^{-1}]
Building Mixing Height: 2.44[m] Building Footprint Area: 100[m^2]
Subsurface Foundation Area: 106[m^2] Building Crack Ratio: 0.00038[unitless]
Foundation Slab Thickness: 0.1[m]

EXPOSURE PARAMETERS

Exposure Duration: carcinogens 30 [years] non-carcinogens: 30 [years]
Exposure Frequency: carcinogens 350 [days/year] non-carcinogens: 365 [days/year]
Averaging Time: carcinogens 70 [years] non-carcinogens: 30 [years]

JOHNSON & ETTINGER SIMULATION RESULTS

Effective Diffusion Coefficient (D^T_{eff}): 0.005397[cm^2/s]
Ground Water to Indoor Air Attenuation Factor (α_{GW}) = 0.0002561

[1]Low Indoor Air Prediction: 0.7868 [$\mu g/m^3$] or 0.1465 [ppbv]
Cancer Risk of this concentration: 3.557e-5 Hazard Risk of this concentration: 0.01967

Best Estimate Indoor Air Prediction: 0.9197[$\mu g/m^3$] or 0.1713 [ppbv]
Cancer Risk of this concentration: 4.158e-5 Hazard Risk of this concentration: 0.02299

[2]High Indoor Air Prediction: 1.054[$\mu g/m^3$] or 0.1963 [ppbv]
Cancer Risk of this concentration: 4.766e-5 Hazard Risk of this concentration: 0.02635

Based on parameter analysis: Advection is the dominant mechanism across foundation. Diffusion through soil is the overall rate-limiting process for the subsurface to indoor-air pathway.

[1] "Low Prediction" concentrations produced with HIGHEST moisture content and DEEPEST depth to contamination.
[2] "High Prediction" concentrations produced with LOWEST moisture content and SHALLOWEST depth to contamination.

INDOOR AIR SIMULATION RESULTS

Screening-Level Johnson and Ettinger Model

Indoor Air Calculation Verification for Shallow Water-Bearing Zone

Site Name: Lakeview Facility 188-002 Shallow Water-Bearing Zone Calculation Verification
Report Date: Fri Mar 21 15:56:30 PDT 2014
Report Generated From: http://www.epa.gov/athens/learn2model/part-two/onsite/JnE_lite_forward.htm
Type of sample: GROUND WATER Concentration = 27.6[µg/L]
Depth to ground water table: 41ft +/- 2ft
Average soil/ground water temperature: 13C

CHEMICAL PROPERTIES
Chemical of Concern: Trichloroethylene CAS Number: 79016
Molecular Weight: 131.39 [g/mole] Henrys Constant: 0.2394295 [unitless]
Diffusivity in Air: 7.900e-2 [cm^2/sec] Diffusivity in Water: 9.100e-6 [cm^2/sec]
Unit Risk Factor: 0.00011 [(µg/m^3)$^{-1}$] Reference Concentration: 0.04 [mg/m^3]

SOIL PROPERTIES
Soil Type: Loamy Sand Total Porosity: 0.39
Unsaturated Zone Moisture Content:
low= 0.049 best estimate= 0.076 high= 0.1
Capillary Zone Moisture Content: 0.303 Height of Capillary Rise: 0.188 [m]
Soil-Gas Flow Rate into Building: 5 [L/min]

BUILDING PROPERTIES
Building Type: Slab-on-Grade Air Exchange Rate: 0.25[hr^{-1}]
Building Mixing Height: 2.44[m] Building Footprint Area: 100[m^2]
Subsurface Foundation Area: 106[m^2] Building Crack Ratio: 0.00038[unitless]
Foundation Slab Thickness: 0.1[m]

EXPOSURE PARAMETERS
Exposure Duration: carcinogens 30 [years] non-carcinogens: 30 [years]
Exposure Frequency: carcinogens 350 [days/year] non-carcinogens: 365 [days/year]
Averaging Time: carcinogens 70 [years] non-carcinogens: 30 [years]

JOHNSON & ETTINGER SIMULATION RESULTS
Effective Diffusion Coefficient (D^T_{eff}): 0.005397[cm^2/s]
Ground Water to Indoor Air Attenuation Factor (α_{GW}) = 0.0002561

[1]Low Indoor Air Prediction: 1.448 [µg/m^3] or 0.2696 [ppbv]
Cancer Risk of this concentration: 6.545e-5 Hazard Risk of this concentration: 0.03619

Best Estimate Indoor Air Prediction: 1.692[µg/m^3] or 0.3151 [ppbv]
Cancer Risk of this concentration: 7.650e-5 Hazard Risk of this concentration: 0.04231

[2]High Indoor Air Prediction: 1.940[µg/m^3] or 0.3612 [ppbv]
Cancer Risk of this concentration: 8.769e-5 Hazard Risk of this concentration: 0.04849

Based on parameter analysis: Advection is the dominant mechanism across foundation. Diffusion through soil is the overall rate-limiting process for the subsurface to indoor-air pathway.

[1] "Low Prediction" concentrations produced with HIGHEST moisture content and DEEPEST depth to contamination.
[2] "High Prediction" concentrations produced with LOWEST moisture content and SHALLOWEST depth to contamination.

INDOOR AIR SIMULATION RESULTS

Screening-Level Johnson and Ettinger Model

Deep Water-Bearing Zone - MW-20

Site Name: Lakeview Facility 188-002 Deep Water-Bearing Zone
Report Date: Thu Mar 20 12:09:42 PDT 2014
Report Generated From: http://www.epa.gov/athens/learn2model/part-two/onsite/JnE_lite_forward.htm
Type of sample: GROUND WATER Concentration = 20[µg/L]
Depth to ground water table: 55ft +/- 5ft
Average soil/ground water temperature: 13C

CHEMICAL PROPERTIES

Chemical of Concern: Trichloroethylene CAS Number: 79016
Molecular Weight: 131.39 [g/mole] Henrys Constant: 0.2394295 [unitless]
Diffusivity in Air: 7.900e-2 [cm^2/sec] Diffusivity in Water: 9.100e-6 [cm^2/sec]
Unit Risk Factor: 0.00011 [$(\mu g/m^3)^{-1}$] Reference Concentration: 0.04 [mg/m^3]

SOIL PROPERTIES

Soil Type: Loamy Sand Total Porosity: 0.39
Unsaturated Zone Moisture Content:
low= 0.049 best estimate= 0.076 high= 0.1
Capillary Zone Moisture Content: 0.303 Height of Capillary Rise: 0.188 [m]
Soil-Gas Flow Rate into Building: 5 [L/min]

BUILDING PROPERTIES

Building Type: Slab-on-Grade Air Exchange Rate: 0.25[hr^{-1}]
Building Mixing Height: 2.44[m] Building Footprint Area: 100[m^2]
Subsurface Foundation Area: 106[m^2] Building Crack Ratio: 0.00038[unitless]
Foundation Slab Thickness: 0.1[m]

EXPOSURE PARAMETERS

Exposure Duration: carcinogens 30 [years] non-carcinogens: 30 [years]
Exposure Frequency: carcinogens 350 [days/year] non-carcinogens: 365 [days/year]
Averaging Time: carcinogens 70 [years] non-carcinogens: 30 [years]

JOHNSON & ETTINGER SIMULATION RESULTS

Effective Diffusion Coefficient (D^T_{eff}): 0.006198[cm^2/s]
Ground Water to Indoor Air Attenuation Factor (α_{GW}) = 0.0002209

[1]Low Indoor Air Prediction: 0.8631 [$\mu g/m^3$] or 0.1607 [ppbv]
Cancer Risk of this concentration: 3.902e-5 Hazard Risk of this concentration: 0.02158

Best Estimate Indoor Air Prediction: 1.058[$\mu g/m^3$] or 0.1970 [ppbv]
Cancer Risk of this concentration: 4.782e-5 Hazard Risk of this concentration: 0.02645

[2]High Indoor Air Prediction: 1.268[$\mu g/m^3$] or 0.2360 [ppbv]
Cancer Risk of this concentration: 5.730e-5 Hazard Risk of this concentration: 0.03169

Based on parameter analysis: Advection is the dominant mechanism across foundation. Diffusion through soil is the overall rate-limiting process for the subsurface to indoor-air pathway.

[1] "Low Prediction" concentrations produced with HIGHEST moisture content and DEEPEST depth to contamination.
[2] "High Prediction" concentrations produced with LOWEST moisture content and SHALLOWEST depth to contamination.

INDOOR AIR SIMULATION RESULTS

Screening-Level Johnson and Ettinger Model

Indoor Air Calculation Verification for Deep Water-Bearing Zone

Site Name: Lakeview Facility 188-002 Deep Water-Bearing Zone Calculation Verification
Report Date: Fri Mar 21 15:49:28 PDT 2014
Report Generated From: http://www.epa.gov/athens/learn2model/part-two/onsite/JnE_lite_forward.htm
Type of sample: GROUND WATER Concentration = 30.6[µg/L]
Depth to ground water table: 55ft +/- 5ft
Average soil/ground water temperature: 13C

CHEMICAL PROPERTIES

Chemical of Concern: Trichloroethylene CAS Number: 79016
Molecular Weight: 131.39 [g/mole] Henrys Constant: 0.2394295 [unitless]
Diffusivity in Air: 7.900e-2 [cm^2/sec] Diffusivity in Water: 9.100e-6 [cm^2/sec]
Unit Risk Factor: 0.00011 [$(\mu g/m^3)^{-1}$] Reference Concentration: 0.04 [mg/m^3]

SOIL PROPERTIES

Soil Type: Loamy Sand Total Porosity: 0.39
Unsaturated Zone Moisture Content:
low= 0.049 best estimate= 0.076 high= 0.1
Capillary Zone Moisture Content: 0.303 Height of Capillary Rise: 0.188 [m]
Soil-Gas Flow Rate into Building: 5 [L/min]

BUILDING PROPERTIES

Building Type: Slab-on-Grade Air Exchange Rate: 0.25[hr^{-1}]
Building Mixing Height: 2.44[m] Building Footprint Area: 100[m^2]
Subsurface Foundation Area: 106[m^2] Building Crack Ratio: 0.00038[unitless]
Foundation Slab Thickness: 0.1[m]

EXPOSURE PARAMETERS

Exposure Duration: carcinogens 30 [years] non-carcinogens: 30 [years]
Exposure Frequency: carcinogens 350 [days/year] non-carcinogens: 365 [days/year]
Averaging Time: carcinogens 70 [years] non-carcinogens: 30 [years]

JOHNSON & ETTINGER SIMULATION RESULTS

Effective Diffusion Coefficient (D^T_{eff}): 0.006198[cm^2/s]
Ground Water to Indoor Air Attenuation Factor (α_{GW}) = 0.0002209

[1]Low Indoor Air Prediction: 1.321 [$\mu g/m^3$] or 0.2459 [ppbv]
Cancer Risk of this concentration: 5.970e-5 Hazard Risk of this concentration: 0.03301

Best Estimate Indoor Air Prediction: 1.619[$\mu g/m^3$] or 0.3014 [ppbv]
Cancer Risk of this concentration: 7.317e-5 Hazard Risk of this concentration: 0.04046

[2]High Indoor Air Prediction: 1.939[$\mu g/m^3$] or 0.3611 [ppbv]
Cancer Risk of this concentration: 8.767e-5 Hazard Risk of this concentration: 0.04848

Based on parameter analysis: Advection is the dominant mechanism across foundation. Diffusion through soil is the overall rate-limiting process for the subsurface to indoor-air pathway.

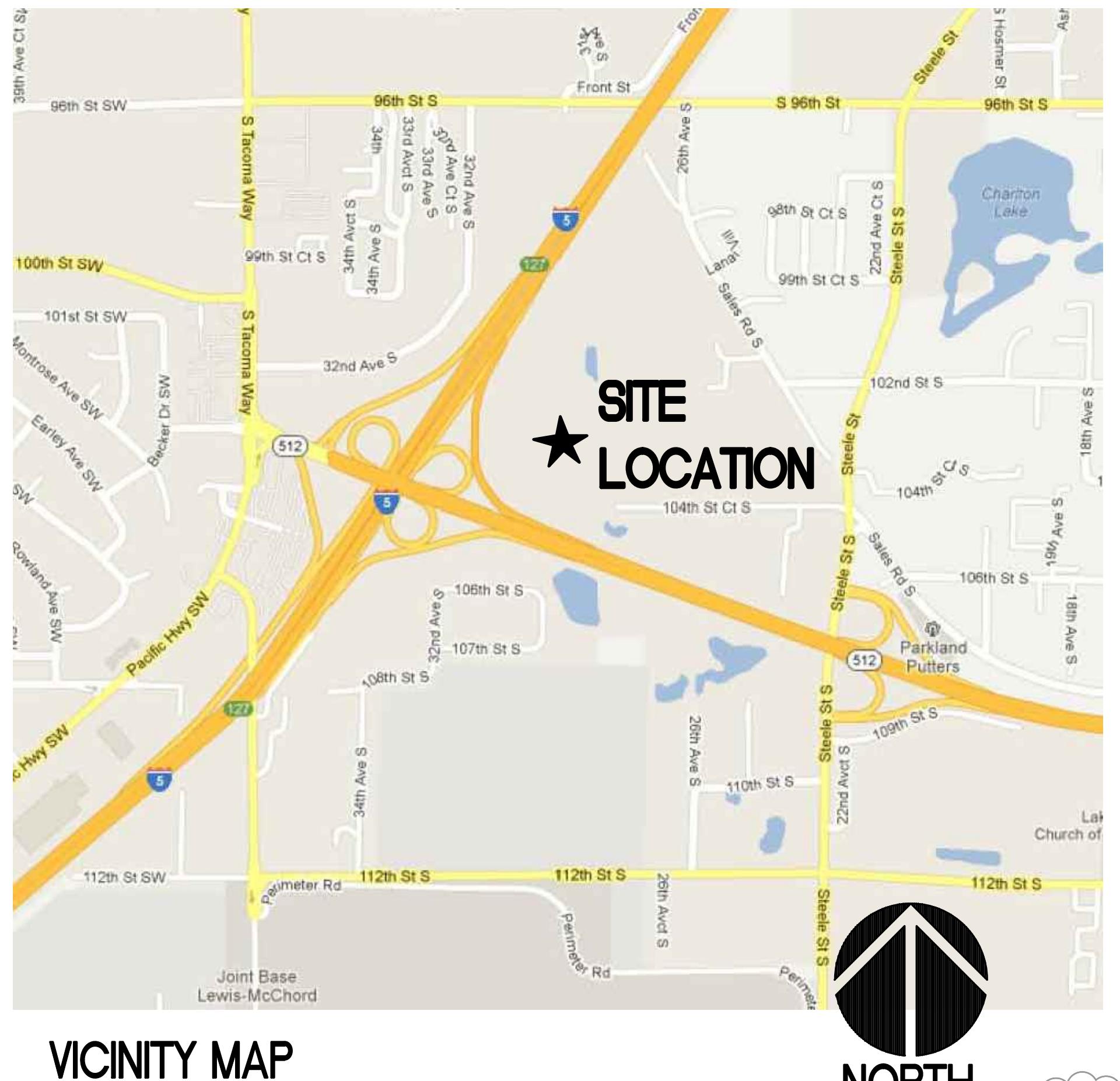
[1] "Low Prediction" concentrations produced with HIGHEST moisture content and DEEPEST depth to contamination.
[2] "High Prediction" concentrations produced with LOWEST moisture content and SHALLOWEST depth to contamination.

APPENDIX E
FINAL RECLAMATION PLAN

FOCUSED FEASIBILITY STUDY/
DISPROPORTIONATE COST ANALYSIS REPORT
Lakeview Facility
2800 104th Street Court South
Lakewood, Washington

Farallon PN: 188-002

A PORTION OF SECTION 6, TOWNSHIP 19 NORTH, RANGE 03 EAST, W.M.
THE CITY OF LAKEWOOD, WASHINGTON



VICINITY MAP

SCALE: N.T.S.

LEGEND

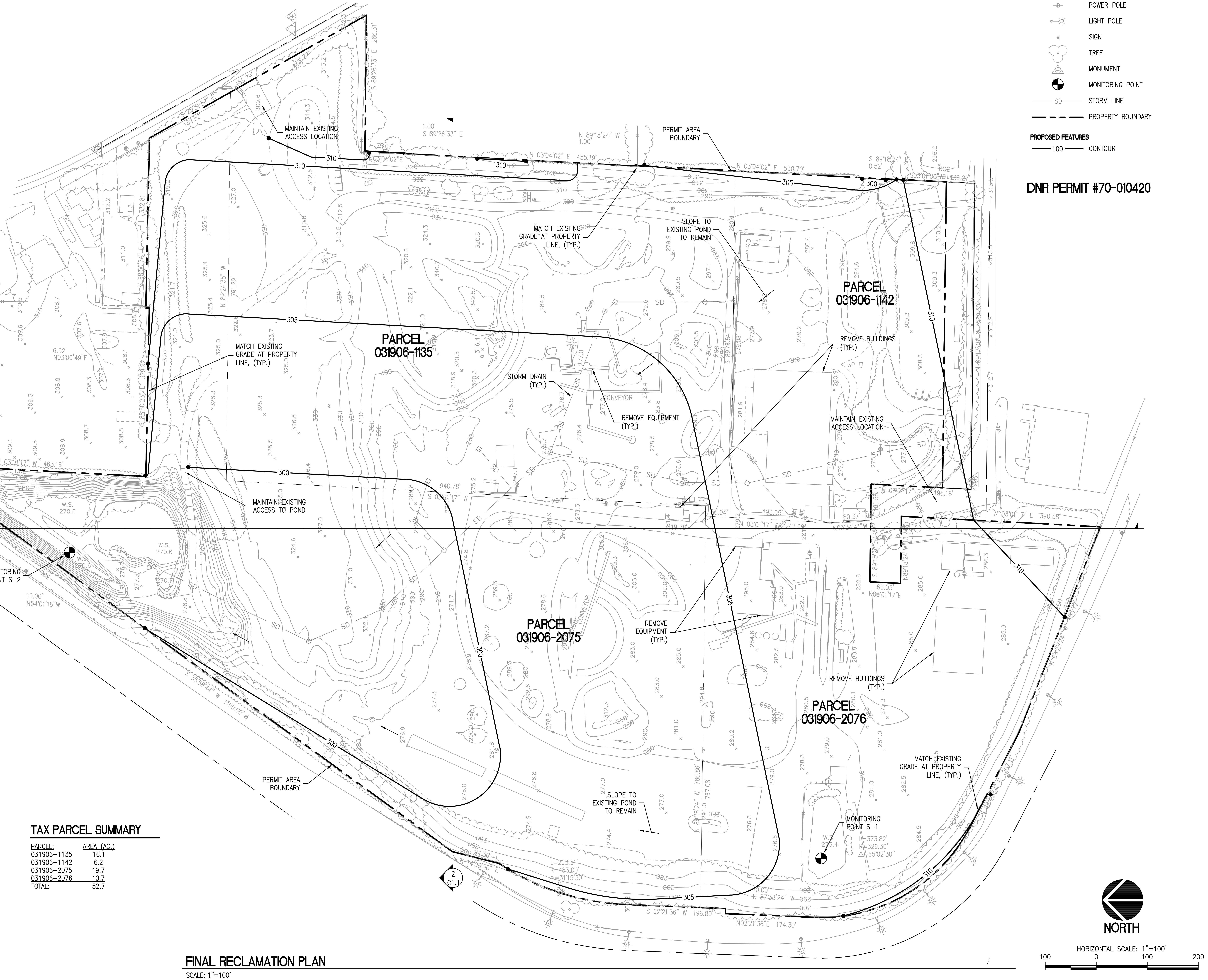
EXISTING FEATURES

□	CATCH BASIN
⊖	POWER POLE
☼	LIGHT POLE
◉	SIGN
♣	TREE
△	MONUMENT
◐	MONITORING POINT
—SD—	STORM LINE
— — —	PROPERTY BOUNDARY

PROPOSED FEATURES

—100—	CONTOUR

DNR PERMIT #70-010420



FINAL RECLAMATION PLAN

SCALE: 1"=100'

GENERAL NOTES

1. HORIZONTAL DATUM FOR THIS PROJECT IS NAD 83/91 WASHINGTON STATE COORDINATE SYSTEM, SOUTH ZONE
2. VERTICAL DATUM FOR THIS PROJECT IS NGVD 29
   BENCHMARKS USED:
   NO. 52–9 PER PIERCE COUNTY PUBLIC WORKS
   ELEVATION = 293.56
   NO. 17–1 PER PIERCE COUNTY PUBLIC WORKS
   ELEVATION = 304.14
3. THE TOPOGRAPHIC MAPPING SHOWN ON THIS PLAN WAS PREPARED BY DEGROSS AERIAL MAPPING INC. FROM AERIAL PHOTOGRAPHY TAKEN ON JANUARY 10, 2012. IT WAS TRANSLATED TO NAD 83/91 DATUM IN FEBRUARY 2012, BASED ON FIELD MEASUREMENTS PERFORMED BY SITTS & HILL ENGINEERS IN FEBRUARY 2012. THIS TOPOGRAPHY HAS A RELATIVE HORIZONTAL ACCURACY OF +/– 0.6' WHICH IS WITHIN ACCEPTABLE TOLERANCE FOR 100 SCALE MAPPING.
4. PLEASE SEE TRANSLATION NOTE FOR MORE SPECIFIC INFORMATION PROVIDED BY DEGROSS AERIAL MAPPING, INC.
5. BOUNDARY INFORMATION SHOWN IS AS SHOWN ON A BOUNDARY LINE ADJUSTMENT DATED 03/11/1996 RECORDED UNDER AFN. 9611130445.
6. STORM WATER FACILITIES FOR FINAL RECLAMATION WILL BE DESIGNED FOR THE 25–YEAR, 24–HOUR DESIGN RAINFALL EVENT.

TRANSLATION INFORMATION NOTES

1. PROVIDED BY DEGROSS AERIAL MAPPING, INC. – FEBRUARY 2012
2. THIS MAP WAS TRANSLATED TO NAD 83–91 USING POINTS 5001, 5003, 5004 PROVIDED BY SITTS AND HILL ENGINEERS. THE TRANSLATION OF THE ORIGINAL 1998 POINTS FIT TO WITHIN 0.6' IN NORTHINGS AND EASTINGS IN THE FINAL. ADJUSTMENT ON THESE SAME THREE POINTS.
3. THE VERTICAL DATUM IS NGVD 29 AS PROVIDED BY SITTS AND HILL ENGINEERS. IT IS BASED ON POINT NO. 5003 WHICH WAS PK NAIL HV 781 THAT WAS USED IN THE ORIGINAL 1998 SURVEY, AND THE ONLY ORIGINAL VERTICAL TIE PROVIDED. THIS RESULTED IN A SHIFT OF 179.023 FEET IN ELEVATION. IT IS NOTED THAT TWO OLD POINTS NEAR POINTS 5001 AND 5005 AGREE WITH THIS SHIFT WITHIN 0.5'.

TAX PARCEL SUMMARY

PARCEL:	AREA (AC.)
031906–1135	16.1
031906–1142	6.2
031906–2075	19.7
031906–2076	10.7
TOTAL:	52.7

P:\15200\15244\Drawings\15244-c1.0.dwg last edited: 05/15/13 3:39pm by: kreischerk

REVISIONS

APPROVALS
DESIGNED W.J.J.
DRAWN K.L.K.
CHECKED W.J.J.
DATE 05/02/2013
SCALE AS NOTED

SEAL
KATHY A. HARGRAVE
30794
05/15/2013

PREPARED BY
SITTS & HILL ENGINEERS, INC.
CIVIL • STRUCTURAL • SURVEYING
CENTER STREET TACOMA, WA
PHONE: FAX:

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PUYALLUP, WASHINGTON 98372
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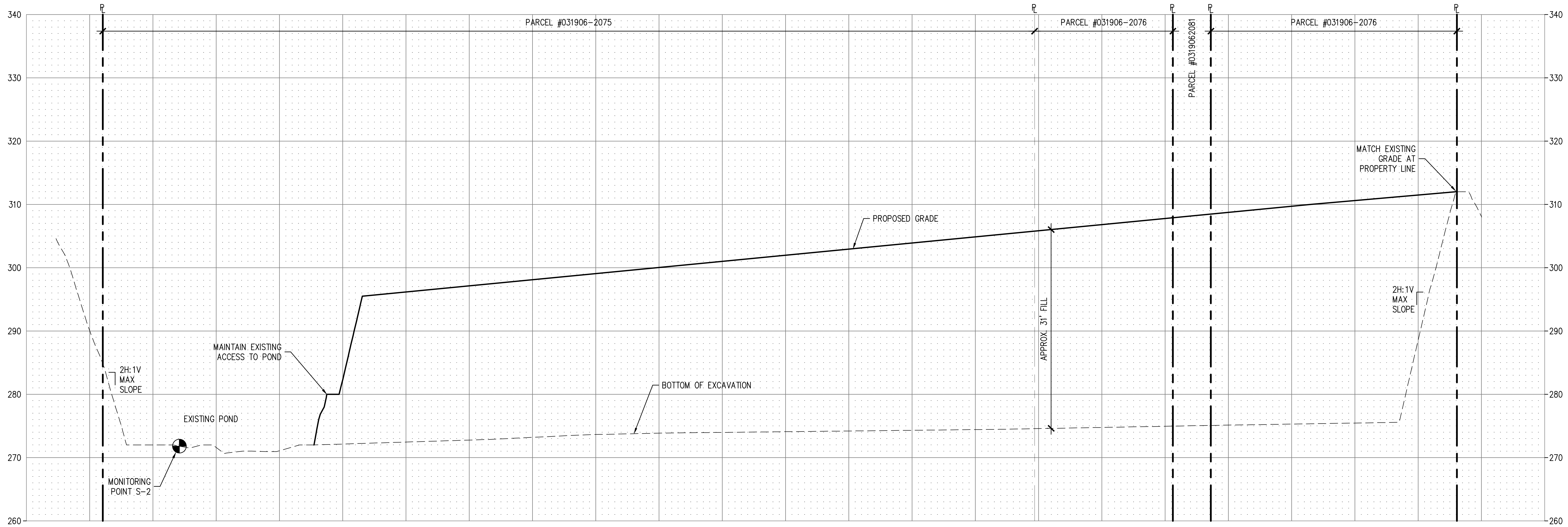
(253) 833–3705

PROJECT
MILES SAND & GRAVEL COMPANY
LAKEVIEW SITE
LAKEWOOD, WASHINGTON

SHEET TITLE
FINAL RECLAMATION PLAN

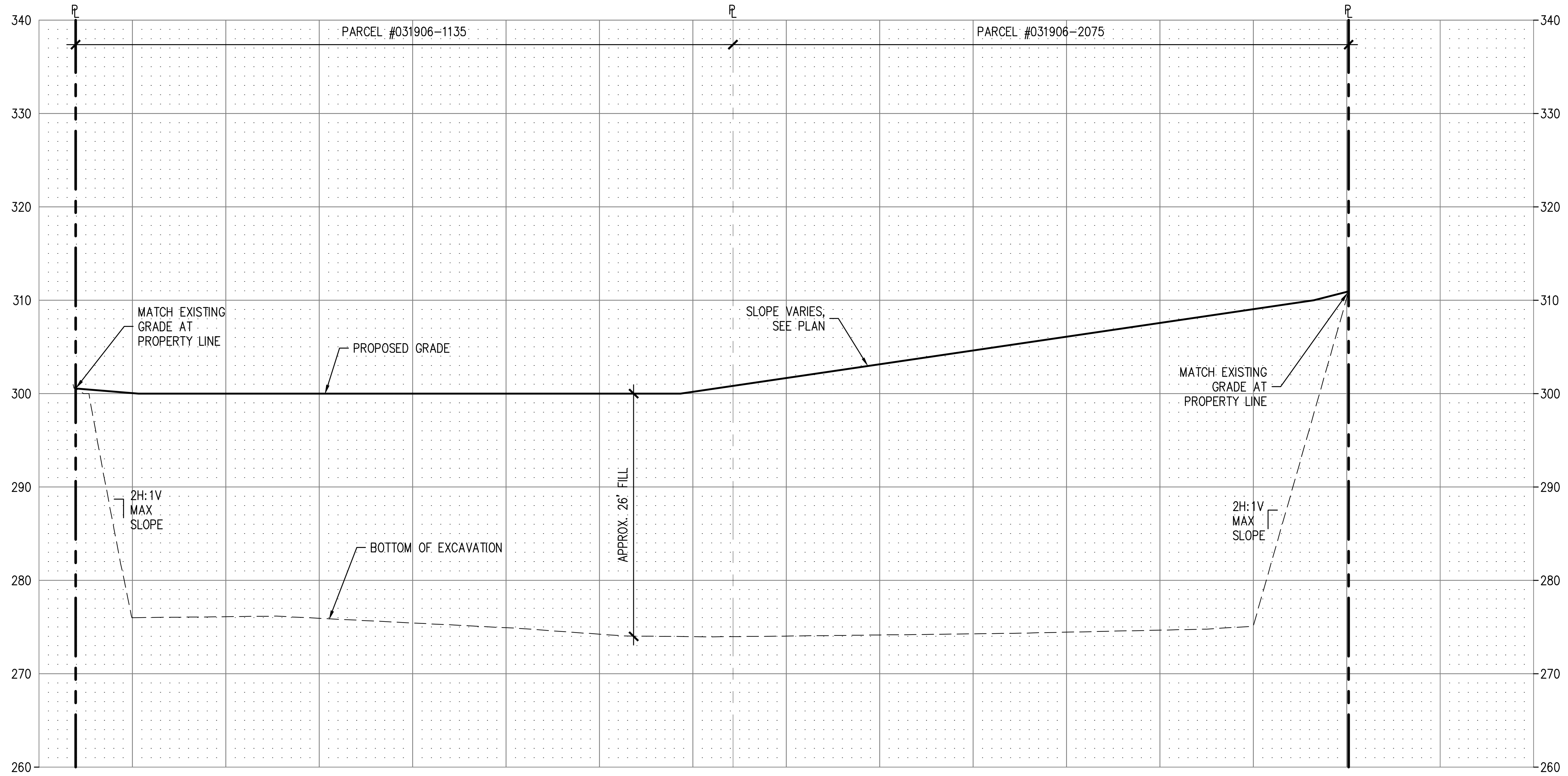
SHEET NO.
C1.0

PROJECT NO.
15,244



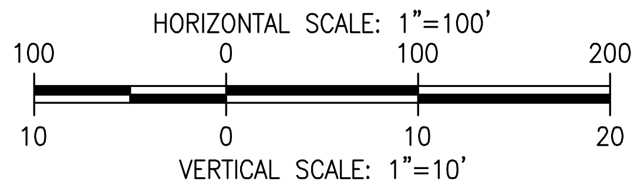
1 NORTH/SOUTH SITE SECTION

SCALE: HORZ: 1"=100' VERT: 1"=10'



2 EAST/WEST SITE SECTION

SCALE: HORZ: 1"=100' VERT: 1"=10'



REVISIONS

APPROVALS
DESIGNED W.J.J.
DRAWN K.L.K.
CHECKED W.J.J.
DATE 05/02/2013
SCALE AS NOTED

SEAL
KATHY A. HARGRAVE
30794
05/15/2013

PREPARED BY
SITTS □ □ILL
ENGINEERS□INC□
CI□IL ▪ STRUCTURAL ▪ SUR□E□ING
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PREPARED FOR
MILES
SAND & GRAVEL COMPANY
400 VALLEY AVE NE
PUYALLUP, WASHINGTON 98372
CONTACT: MIKE SCHUH
(253) 833-3705

PROJECT
MILES SAND & GRAVEL COMPANY
LAKEVIEW SITE
LAKEWOOD, WASHINGTON

SHEET TITLE
RECLAMATION SECTIONS

SHEET NO.
C1.1

PROJECT NO.
15,244

P:\15200\15244\Drawings\15244-c1.1.dwg last edited: 05/13/13 11:11am by: kreischerk

APPENDIX F
CONSTRUCTION COST ESTIMATE FOR CLEANUP ALTERNATIVES

FOCUSED FEASIBILITY STUDY/
DISPROPORTIONATE COST ANALYSIS REPORT
Lakeview Facility
2800 104th Street Court South
Lakewood, Washington

Farallon PN: 188-002

Appendix F—Table F-1
Detailed Construction Cost Estimate for Cleanup Alternative 2—Chemical Oxidation
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Task A: Correspondence With Ecology and Contained-in Soil Letter	
Task A Estimated Total	**$1,740**
Task B: Injection System Design and Install	
Estimated Labor Subtotal	$20,005
Estimated ODC With Trench box Subtotal	$27,090
Estimated ODC 1:1 Sidewalls Subtotal	$83,701
Task B Low Estimated Total	**$47,095**
Task B High Estimated Total	**$103,706**
Task C: Chemical Oxidant Injection	
Estimated Labor Subtotal	$3,230
Estimated ODC Subtotal	$22,465
Task C Estimated Subtotal (per Injection)	$25,695
Task C Estimated Low Total (One Injection)	**$25,695**
Task C Estimated High Total (Three Injections)	**$77,085**
Task D: Performance Groundwater Monitoring	
Task D Estimated Subtotal (per Injection)	$2,570
Task D Estimated Low Total (One Injection)	**$2,570**
Task D Estimated High Total (Three Injections)	**$7,710**
Task E: Confirmation Groundwater Monitoring	
Estimated Labor Subtotal	$6,360
Estimated ODC Subtotal	$1,380
Estimated Laboratory Costs Subtotal	$2,540
Task E Estimated Subtotal	**$10,280**
ESTIMATED LOW PROJECT TOTAL	**$87,380**
ESTIMATED HIGH PROJECT TOTAL	**$200,521**

Appendix F—Table F-2
Detailed Construction Cost Estimate for Cleanup Alternative 2—Air Sparging/Soil Vapor Extraction
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Task A: System Modification, Startup, and Optimization	
Estimated Labor Subtotal	$23,100
Estimated ODC Subtotal	$56,540
Task A Estimated Subtotal	$79,640
Contingency Upgrade to Ozone	$100,000
Task A Estimated Low Total (without Ozone Contingency)	**$79,640**
Task A Estimated High Total (with Ozone Contingency)	**$179,640**
Task B: AS/SVE Operations and Maintenance	
Estimated Labor Subtotal	$1,050
Estimated ODC Subtotal	$3,223
Task B Estimated Monthly Subtotal	$4,273
Task B Estimated Low Subtotal (70 months)	$299,110
System Repairs and Replacements (1 blower, 1 compressor)	$60,000
Task B Estimated Low Total (70 months)	**$359,110**
Task B Estimated High Subtotal (152 months)	$649,497
System Repairs and Replacements (3 blower, 3 compressor)	$180,000
Task B Estimated High Total (152 months)	**$829,497**
Task C: Performance Groundwater Monitoring	
Estimated Labor Subtotal	$1,590
Estimated ODC Subtotal	$525
Estimated Laboratory Costs Subtotal	$1,016
Estimated per Event Subtotal	$3,131
Task C Estimated Low Total (24 events)	**$75,144**
Task C Estimated High Total (50 events)	**$156,550**
Task D: Confirmation Groundwater Monitoring	
Estimated Labor Subtotal	$6,360
Estimated ODC Subtotal	$2,100
Estimated Laboratory Costs Subtotal	$4,064
Task D Estimated Subtotal	**$12,524**
Task E: Annual Cleanup Action Status Report	
Task E Annual Estimated Subtotal	$9,480
Task E Estimated Low Total (70 Months)	**$56,880**
Task E Estimated High Total (152 Months)	**$123,240**
LOW ESTIMATED PROJECT TOTAL	**$583,298**
HIGH ESTIMATED PROJECT TOTAL	**$1,301,451**

Appendix F—Table F-3

Detailed Construction Cost Estimate for Cleanup Alternative 2—Excavation and Off-Site Disposal

Lakeview Facility

Lakewood, Washington

Farallon PN: 188-002

Task A: Excavation and Design	
Estimated Labor Subtotal	$176,885
Field Instruments and Equipment Subtotal	$12,540
Excavation, Trucking, Disposal, Backfill and Compaction Estimated Subtotal	$16,612,518
Estimated Laboratory Costs Subtotal	$4,235
Task A Estimated Total	$16,793,638
Construction Contingency (20%)	$3,358,728
Task A Estimated High Subtotal with Contingency	**$20,152,366**
Task B: Performance Groundwater Monitoring	
Estimated Labor Subtotal	$1,590
Estimated ODC Subtotal	$575
Estimated Laboratory Costs Subtotal	$750
Task B Estimated Subtotal (per Event)	$2,915
Task B Estimated Low Total (Zero Event)	**$0**
Task B Estimated High Total (Eight Events)	**$23,320**
Task C: Confirmation Groundwater Monitoring	
Estimated Labor Subtotal	$10,965
Estimated ODC Subtotal	$25,300
Estimated Laboratory Costs Subtotal	$3,368
Task C Estimated Total	**$39,633**
ESTIMATED PROJECT LOW TOTAL	**$16,833,271**
ESTIMATED PROJECT HIGH TOTAL	**$20,215,319**

Appendix F—Table F-4
Detailed Construction Cost Estimate for Compliance Groundwater Monitoring Under Cleanup Alternative 1 - Institutional Controls
Lakeview Facility
Lakewood, Washington
Farallon PN: 188-002

Task A: Compliance Groundwater Monitoring	
Estimated Labor Subtotal	$1,590
Estimated ODC Subtotal	$930
Estimated Laboratory Costs Subtotal	$1,651
Estimated per Event Subtotal	$4,171
Task A Estimated Low Total (3 events)	**$12,513**
Task A Estimated High Total (10 events)	**$41,710**
Task B: 5-year Cleanup Action Status Report	
Task B Estimated Low Total (1 Report)	**$2,825**
Task B Estimated High Total (3 Reports)	**$8,475**
LOW ESTIMATED PROJECT TOTAL	**$15,338**
HIGH ESTIMATED PROJECT TOTAL	**$50,185**

APPENDIX G
DRAFT ENVIRONMENTAL COVENANT

FOCUSED FEASIBILITY STUDY/
DISPROPORTIONATE COST ANALYSIS REPORT
Lakeview Facility
2800 104th Street Court South
Lakewood, Washington

Farallon PN: 188-002

Restrictive (Environmental) Covenant

After Recording Return to:
____
Department of Ecology
Southwest Regional Office
PO Box 47775
Olympia, Washington 98504

Environmental Covenant

Grantor: **Miles Sand & Gravel Company**
Grantee: State of Washington, Department of Ecology
Legal: **NW ¼ and NE ¼ of Section 06 Township 19 North, Range 03 East**
Tax Parcel Nos.: **0319062075, 0319061135, 0319062076, and 0319061142**

Grantor, **Miles Sand & Gravel Company**, hereby binds Grantor, its successors and assigns to the land use restrictions identified herein and grants such other rights under this environmental covenant (hereafter "Covenant") made this ______ day of ____________, 2013 in favor of the State of Washington Department of Ecology (Ecology). Ecology shall have full right of enforcement of the rights conveyed under this Covenant pursuant to the Model Toxics Control Act, RCW 70.105D.030(1)(g), and the Uniform Environmental Covenants Act, 2007 Wash. Laws ch. 104, sec. 12.

This Declaration of Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Miles Sand & Gravel Company, its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

A remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Covenant. The Remedial Action conducted at the property is described in the following document[s]:

- *Focused Feasibility Study and Disproportionate Cost Analysis Report, Lakeview Facility, 2800 104th Street Court South, Lakewood, Washington.* [Date]. Prepared by Farallon Consulting, L.L.C. for Woodworth Capital, Inc. [Preparation of Document Pending].

- *Cleanup Action Status Report, September 2009 Through February 2011, Woodworth Lakeview Facility, 2800 104th Street Court South, Lakewood, Washington.* 2011. Prepared by Farallon Consulting, L.L.C. for Woodworth Capital, Inc. June 2.
- *Soil Excavation Cleanup Action Completion Report, Woodworth Lakeview Facility, 2800 104th Street Court South, Lakewood, Washington.* 2011. Prepared by Farallon Consulting, L.L.C. for Woodworth Capital, Inc. March 28.
- *Letter Regarding Risk-Based Cleanup Level Calculation for Petroleum-Contaminated Soil, Woodworth Lakeview Facility, 2800 104th Street Court South, Lakewood, Washington.* 2010. From Brani Jurista, L.G., Associate Geologist, and Peter Jewett, L.G., L.E.G., Principal Engineering Geologist to Chuck Cline, Ecology Project Manager. December 1.
- *Engineering Design Report, Woodworth Capital, Inc., Formerly Known as Woodworth & Company, Inc., Lakeview Facility, 2800 104th Street South, Lakewood, Washington 98499.* 2010. Prepared by Farallon Consulting, L.L.C. for Woodworth Capital, Inc. January 20.
- *Remedial Investigation/Feasibility Study Report, Woodworth & Company, Inc., Lakeview Facility, 2800 104th Street South, Lakewood, Washington 98499*. 2009. Prepared by Farallon Consulting, L.L.C. for Woodworth & Company, Inc. August 19.
- *Addendum to Remedial Investigation Work Plan, Woodworth & Company, Inc., Lakeview Facility, 2800 104th Street South, Lakewood, Washington 98499*. 2009. Prepared for Woodworth & Company, Inc. January 30.
- *Remedial Investigation Work Plan, Woodworth & Company, Inc., Lakeview Facility, 2800 104th Street South, Lakewood, Washington 98499.* 2009. Prepared by Farallon Consulting, L.L.C. for Woodworth & Company, Inc. January 26.

These documents are on file at Ecology's Southwest Regional Office.

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This Covenant is required because the Remedial Action resulted in residual concentrations of trichloroethene, arsenic, and lead which exceed the Model Toxics Control Act Method Method A Cleanup Level(s) for groundwater established under WAC 173-340-

720. Concentrations of trichloroethene, arsenic, and lead detected in soil at the site do not exceed the Model Toxics Control Act Method A Cleanup Level(s) for soil.

++

The undersigned, Miles Sand & Gravel Company, is the fee owner of real property (hereafter "Property") in the County of Pierce, State of Washington, that is subject to this Covenant. The Property is legally described on Attachment A of this Covenant and made a part hereof by reference.

Miles Sand & Gravel Company makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

Section 1.

No groundwater may be taken for drinking water use from the Property.

Section 2.

Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 3.

The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property.

Section 4.

The Owner must restrict leases to uses and activities consistent with the Covenant and notify all lessees of the restrictions on the use of the Property.

Section 5.

The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 6.

The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times mutually agreed upon for the purpose of evaluating compliance with this Covenant.

Section 7.

The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology concurs.

OWNER
Miles Sand & Gravel Company

____
[Name of Signatory]
[Title]

Dated: ____________________

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

____
[Name of Person Acknowledging Receipt]
[Title]

Dated: ____________________

[INDIVIDUAL ACKNOWLEDGMENT]

STATE OF WASHINGTON
COUNTY OF PIERCE

On this ______ day of ___________________, 20__, I certify that ______________ personally appeared before me, and acknowledged that **he/she** is the individual described herein and who executed the within and foregoing instrument and signed the same at **his/her** free and voluntary act and deed for the uses and purposes therein mentioned.

____
Notary Public in and for the State of
Washington, residing at _______________.
My appointment expires_______________.

[CORPORATE ACKNOWLEDGMENT]

STATE OF WASHINGTON
COUNTY OF PIERCE

On this ______ day of ___________________, 20__, I certify that ______________ personally appeared before me, acknowledged that **he/she** is the _____________________ of the corporation that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that **he/she** was authorized to execute said instrument for said corporation.

____
Notary Public in and for the State of
Washington, residing at
________________.
My appointment
expires________________.

[REPRESENTATIVE ACKNOWLEDGEMENT]

STATE OF WASHINGTON
COUNTY OF PIERCE

On this ______ day of ___________________, 20__, I certify that ______________ ______ personally appeared before me, acknowledged that **he/she** signed this instrument, on oath stated that **he/she** was authorized to execute this instrument, and acknowledged it as the

__________________________ [type of authority] of ________________________ [name of party being represented] to be the free and voluntary act and deed of such party for the uses and purposes mentioned in the instrument.

____
Notary Public in and for the State of
Washington, residing at _____________.
My appointment expires _____________.

Exhibit A
Legal Description

Tax ID Number: 0319062075

Section 06 Township 19 Range 03 Quarter 24 : PARCEL "A" DBLR 96-11-13-0445 DESC AS A PARCEL OF LAND IN GOVT LOTS 2, 3 & 6 & THE NE OF 06-19-03E MORE PARTICULARLY DESC AS FOLL: COM AT NW COR OF NE OF SD SEC 6 TH SLY ALG W LI OF SD NE QTR S 03 DEG 00 MIN 57 SEC W 645.37 FT TO E RT- OF-WY LI OF INTERSTATE 5 & TRUE POB TH CONT S 03 DEG 00 MIN 57 SEC W 463.16 FT TO NW COR OF PARCEL A AS CONVEYED TO WOODWORTH & CO INC SWD AFN 2126385 TH ELY ALG N LI OF SD PARCEL A S 88 DEG 50 MIN 43 SEC E 329.92 FT TO W LI OF PARCEL B AS CONVEYED TO WOODWORTH & CO INC BY SWD AFN 2126385 TH NLY ALG SD W LI N 03 DEG 00 MIN 29 SEC E 6.53 FT TO NW COR SD PARCEL B TH ELY ALG N LI OF SD PARCEL B S 88 DEG 50 MIN 44 SEC E 332.81 FT TO W RT-OF-WY LI OF SALES RD TH SELY ALG SD W RT -OF-WY LI S 29 DEG 32 MIN 17 SEC E 182.52 FT TO N LI OF SW QTR OF NE OF SD SEC 6 TH WLY ALG SD N LI N N 89 DEG 24 MIN 56 SEC W 761.29 FT TO NW COR OF LAST SD SUBDIV TH SLY ALG W LI OF LAST SD SUBDIV S 03 DEG 00 MIN 57 SEC W 940.78 FT TO A PT 50 FT N OF AS MEAS AT RT ANGLES N LI OF A PARCEL OF LAND DESC IN EXHIBIT A OF SWD AFN 94-10-13-0136 TH WLY & PAR/W SD N LI N 89 DEG 18 MIN 44 SEC W 786.87 FT TO E RT-OF- WY LI OF INTERSTATE 5 TH ALG SD E RT-OF-WY LI N 02 DEG 21 MIN 16 SEC E 148.14 FT TO BEG OF A CURVE CONCAVE TO E WHOSE RADIUS PT BEARS S 87 DEG 38 MIN 44 SEC E 483.00 FT TH ALG ARC OF SD CURVE 263.51 FT THRU A CENTRAL ANGLE OF 31 DEG 15 MIN 30 SEC TH CONT ALG SD RT-OF-WY N 14 DEG 08 MIN 30 SEC E 94.30 FT TH CONT ALG SD RT-OF-WY N 35 DEG 58 MIN 24 SEC E 1100.00 FT TH CONT ALG SD RT-OF-WY N 54 DEG 01 MIN 36 SEC W 10.00 FT TH CONT ALG SD RT- OF-WY N 35 DEG 58 MIN 24 SEC E 206.76 FT TO POB OUT OF 2-073, 2-074 SEG I0633BL 03-18-97BL

Tax ID Number: 0319061135

Section 06 Township 19 Range 03 Quarter 13 : PARCEL "B" DBLR 96-11-13-0445 DESC AS A PARCEL OF LAND IN SW OF NE OF 06-19-03E BEING MORE PARTICULARLY DESC AS FOLL: COM AT NW COR OF NE OF SD SEC 6 TH SLY ALG W LI OF SD NE QTR S 03 DEG 00 MIN 57 SEC W 645.37 FT TO E RT-OF-WY LI OF INTERSTATE 5 TH CONT S 03 DEG 00 MIN 57 SEC W 463.16 FT TO NW COR OF PARCEL "A" AS CONVEYED TO WOODWORTH & CO INC BY SWD AFN 2126385 TH ELY ALG N LI OF SD PARCEL "A" S 88 DEG 50 MIN 43 SEC E 329.92 FT TO W LI OF PARCEL "B" AS CONVEYED TO WOODWORTH & CO INC BY SWD AFN 2126385 TH NLY ALG SD W LI N 03 DEG 00 MIN 29 SEC E 6.53 FT TO NW COR OF SD PARCEL "B" TH ELY ALG N LI OF SD PARCEL "B" S 88 DEG 50 MIN 44 SEC E 332.81 FT TO W RT-OF-WY LI OF SALES RD TH SELY ALG SD W RT-0F-WY LI S 29 DEG 32 MIN 17 SEC E 182.52 FT TO N LI OF SW OF NE OF SD SEC 6 & TRUE POB TH WLY ALG SD N LI N 89 DEG 24 MIN 56 SEC W 761.29 FT TO NW COR OF LAST SD SUBDIV TH SLY ALG W LI OF LAST SD SUBDIV S 03 DEG 00 MIN 57 SEC W 940.78 FT TO A PT 50 FT N OF AS MEAS AT RT ANGLES N LI OF A PAR OF LAND DESC AS EXHIBIT "A" OF SWD AFN 94-10-13-0136 TH WLY & PAR/W S LI OF NW OF SD SEC 6 N 89 DEG 18 MIN 44 SEC W 19.79 FT TO A PT ON W LI EXT NLY OF A PARCEL OF LAND DESC IN EXHIBIT "A" OF SWD AFN 94-10-13-0136 TH SLY ALG SD W LI EXT S 03 DEG 00 MIN 57 SEC W 50.04 FT TO NW COR OF LAST SD PARCEL TH ELY ALG N LI OF LAST SD

PARCEL S 89 DEG 18 MIN 44 SEC E 679.08 FT TO E LI OF PARCEL "A" AS CONVEYED TO WOODWORTH & CO INC BY QCD AFN 2785075 TH NLY ALG SD E LI N 03 DEG 03 MIN 42 SEC E 196.48 FT TO S LI OF PARCEL "B" OF CORRECTED DBLR AFN 93-08-06-0508 TH WLY ALG SD S LI N 89 DEG 18 MIN 44 SEC W 1.00 FT TO SW COR OF SD PARCEL "B" TH NLY ALG W LI OF SD PARCEL "B" N 03 DEG 03 MIN 42 SEC E 455.19 FT TO NW COR OF PARCEL "A" OF SD DBLR TH ELY ALG N LI OF SD PARCEL "A" S 89 DEG 26 MIN 53 SEC E 1.00 FT TO E LI OF SD PARCEL "A" AS CONVEYED TO WOODWORTH & CO BY QCD AFN 2785075 TH NLY ALG SD E LI N 03 DEG 03 MIN 42 SEC E 75.07 FT TO SW COR OF PARCEL "C" CONVEYED TO WOODWORTH & CO BY SWD AFN 2126385 TH ELY ALG S LI OF SD PARCEL "C" S 89 DEG 26 MIN 53 SEC E 266.31 FT TO W RT-OF- WY LI OF SALES RD TH NWLY ALG SD RT-OF-WY LI N 29 DEG 32 MIN 17 SEC W 306.27 FT TO POB OUT OF 1-133 1-134 & 2-073 SEG I0633BL 03-19-97BL

Tax ID Number: 0319062076

Section 06 Township 19 Range 03 Quarter 24 : PARCEL "C" DBLR 96-11-13-0445 DESC AS A PARCEL OF LAND IN NW & SW OF 06-19-03E BEING MORE PARTICULARLY DESC AS FOLL: COM AT SW COR OF NE OF SD SEC 6 TH ELY ALG S LI OF LAST SD SUBDIV S 89 DEG 18 MIN 44 SEC E 60.05 FT TO A PT 60.00 FT E OF AS MEAS AT RT ANGLES THE W LI OF LAST SD SUBDIV TH NLY & PAR/W SD W LI N 03 DEG 00 MIN 57 SEC E 60.05 FT TO A PT 60.00 FT N OF AS MEAS AT RT ANGLES THE S LI OF LAST SD SUBDIV TH WLY & PAR/W SD S LI N 89 DEG 18 MIN 44 SEC W 70.59 FT TO AN ANGLE PT IN W LI OF A PARCEL OF LAND DESC AS EXHIBIT A SWD AFN 9410130136 & TRUE POB TH N 03 DEG 35 MIN 01 SEC W 80.37 FT TO AN ANGLE PT IN SD W LI TH NLY ALG SD W LI N 03 DEG 00 MIN 57 SEC E 193. 95 FT TO NW COR OF LAST SD PARCEL TH CONT N 03 DEG 00 MIN 57 SEC E 50.04 FT TH WLY & PAR/W N LI OF SW OF SD SEC 6 N 89 DEG 18 MIN 44 SEC W 767.08 FT TO E RT-OF-WY LI OF INTERSTATE 5 TH SLY ALG SD E RT-OF -WY LI S 02 DEG 21 MIN 16 SEC W 48.66 FT TH CONT ALG SD E RT-OF-WY LI N 87 DEG 38 MIN 44 SEC W 10.00 FT TH CONT ALG SD E RT-OF-WY LI S 02 DEG 21 MIN 16 SEC W 174.30 FT TO BEG OF A CURVE CONCAVE TO NE WHOSE RADIUS PT BEARS S 87 DEG 38 MIN 44 SEC E 329.30 FT TH CONT ALG SD E RT-OF-WY LI ALG THE ARC OF SD CURVE 373.82 FT THRU A CENTRAL ANGLE OF 65 DEG 02 MIN 30 SEC TH CONT ALG SD E RT-OF-WY LI S 62 DEG 41 MIN 14 SEC E 207.11 FT TH CONT ALG SD E RT-OF-WY LI S 68 DEG 23 SEC 44 MIN E 433.72 FT TO E LI OF SW OF SD SEC 6 TH NLY ALG SD E LI N 03 DEG 00 MIN 57 SEC E 390.58 FT TO NE QTR OF SD SW TH WLY ALG N LI OF SD SW N 89 DEG 18 MIN 44 SEC W 131.48 FT TO W LI EXT SLY OF A PARCEL OF LAND CONVEYED TO WOODWORTH & CO BY SWD AFN 2300842 TH NLY ALG SD EXT W LI N 03 DEG 00 MIN 57 SEC E 60.05 FT TO SW COR OF LAST SD PARCEL TH ELY ALG S LI OF LAST SD PARCEL S 89 DEG 18 MIN 44 SEC E 120.94 FT TO POB OUT OF 2-073, 2-074 & 3-024 SEG I0633BL 03-19-97BL

Tax ID Number: 0319061142

Section 06 Township 19 Range 03 Quarter 13 PARCEL "D" OF DBLR 96-11-13-0445 DESC AS COM AT SW COR OF NE TH E ALG S LI SD SUBD 60.05 FT TO POB TH N 03 DEG 00 MIN 57 SEC E 60.05 FT TH N 89 DEG 18 MIN 44 SEC W 70.59 FT TH N 03 DEG 35 MIN 01 SEC W 80.37 FT TH N 03 DEG 00 MIN 57 SEC E 193.95 FT TH S 89 DEG 18 MIN 44 SEC E 679.08 FT TH S 03 DEG 03 MIN 42 SEC W 334.22 FT TH S 89 DEG 18 MIN 44 SEC E 0.52 FT TH S 03 DEG 00 MIN 40 SEC W 136.27 FT TO N LI OF 104TH ST CT S TH

W ALG SD R/W LI 599.5 FT TH N 03 DEG 00 MIN 57 SEC E 136..14 FT TO POB COMB OF 1-132 (BLDG) & 1-136 (LAND) SEG 2010-0025 JU 7/23/09JU


Tax Parcels
Tax Parcels
32ND AV S
26TH AV S
SALES RD S
98TH ST CT S
25TH AV CT S
100TH ST CT S
0319062075
0319061135
0319062076
0319061142
104TH ST CT S
24TH AV S
STEELE ST S
106TH ST S
512
200 m
1000 ft