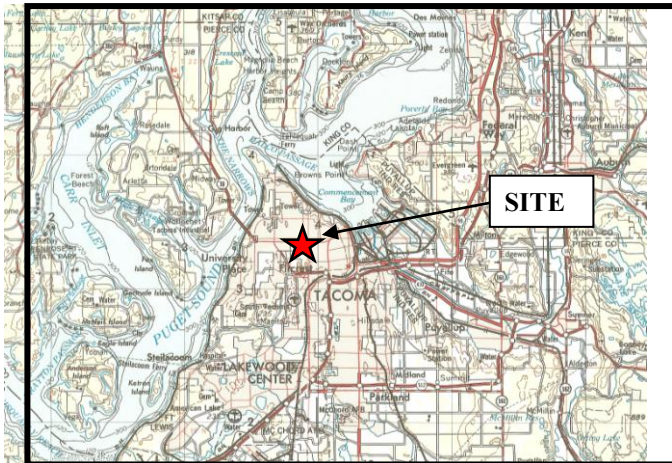


SITE CLEANUP CONFIRMATION  
INVESTIGATION

At the  
**HIGHLAND HILLS SHOPPING CENTER**  
**NORTHWEST FURNITURE & BRIDGESTONE FIRESTONE RETAIL CENTER**



Prepared for  
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## ***EXECUTIVE SUMMARY***

This report presents the results of Galloway Environmental, Inc.'s (GEI's) Site Cleanup Confirmation Investigation ("SCCI") at the Northwest Furniture & Bridgestone Firestone Retail Center property. The subject property is located at 5907 and 5909 6<sup>th</sup> Avenue in Tacoma, Washington 98406.

The property is approximately four miles west of Tacoma's central business district and 1½ miles east of The Narrows Passage of Puget Sound. The property is situated in the NW ¼ of Section 2, Township 20 North, Range 2 East. Surrounding properties consist primarily of commercial properties.

### *Report Purpose and Objectives*

This investigation was targeted to determine whether remedial actions completed at the Site have successfully removed or treated the impacted soils to comply with current Model Toxics Control Act (MTCA) Cleanup Levels (CULs).

Several environmental reports have been completed at the subject property. These reports have provided information related to environmental site investigations and remedial actions at the Site. These reports are summarized in Section 1.0.3 Previous Environmental Studies.

### *Work Scope Performed by GEI during this SCCI*

GEI performed environmental soil sampling and analysis at eight (8) shallow soil penetration test holes drilled at the property. The following summary is intended for introductory purposes and should be used in conjunction with the full text of the report.

### *Findings of the Investigation*

- Soil samples — Laboratory analysis of GEI's recent soil samples resulted in elevated concentrations of Chemicals of Concern (COCs) above the currently allowable Washington State Model Toxics Control Act Method B (MTCA) Cleanup Levels (CULs) for Unrestricted Land Use (ULU) in one of the eight soil penetrations sampled during this investigation.
- Water samples — No groundwater was encountered during this study.

### *Conclusions*

- Additional environmental investigation or remedial action is recommended to comply with current MTCA regulations in vicinity of the one soil penetration with elevated COC concentrations.

## **1.0 INTRODUCTION**

Galloway Environmental, Inc. (GEI) on behalf of Highland Sixth Associates LP, has prepared this Work Plan for a focused Environmental Site Assessment (ESA) at the Northwest Furniture & Bridgestone Firestone Retail Center property, 5907 and 5909 6<sup>th</sup> Avenue, Tacoma, Washington.

The property comprises a portion of the Highland Hills Shopping Center in Tacoma, Washington. The primary goal of this study was targeted to determine whether remedial actions completed at the Site have successfully removed or treated the impacted soils to comply with current Model Toxics Control Act (MTCA) Cleanup Levels (CULs).

### **1.0.1 Site Location and Property Description**

The subject property is located at 5907 and 5909 6<sup>th</sup> Avenue in Tacoma, Washington 98406. The property is approximately three miles west of Tacoma's central business district and 1½ miles east of The Narrows Passage of Puget Sound (*see Figure 1-1 Site Location Map*).

The property is situated in the NW ¼ of Section 2, Township 20 North, Range 2 East. Surrounding properties consist primarily of commercial properties.

### **1.0.2 Background and General Facility Information**

The single story, 5,000 square foot Northwest Furniture Outlet structure was constructed to house the Daisy Clothing Care business in 1969. The facility had washing machines, clothing dryers and seven dry cleaning units. Daisy Clothing Care was in operation at the site until 1985 and the cleaners ceased its operation at that time. Reportedly, the Northwest Furniture Outlet suite was vacant until circa 1993 when the Northwest Furniture Outlet occupied the structure. The structure was demolished in April 2008 and most of the footprint of the structure was capped with asphalt with a small area adjacent to the remaining BFRC structure planted with vegetation and small shrubs and trees (*See Figure 1-2 — Site Plan Map*).

A 6,820 square foot Bridgestone Firestone Retail Center (BRFC) auto service center was built adjoining the Northwest Furniture structure in 1969. There are six vehicle service bays situated in the north and western portions of the structure. Five of the service bays are equipped with hydraulic lifts and an aboveground alignment rack has replaced a hydraulic lift that had previously occupied the northern bay. There are six floor drains (one near each lift) that are connected by an underground line leading to an underground oil/water separator located adjacent to the northern wall of the facility.

Both businesses have been connected to City of Tacoma water and sewer services since 1969.

### **1.0.3 Previous Environmental Studies**

Several environmental studies have been completed previously at the subject shopping center property. These investigations have provided information related to Environmental Site Investigation and Remedial Action Reports at the Northwest Furniture Outlet Facility (previously operated as Daisy Clothing Care) and the adjacent BFRC facility (*See Appendix C — Previous Environmental Reports*).

These investigations confirmed that concentrations of halogenated volatile organic compounds (HVOCs), gasoline-range petroleum compounds (mineral spirits), and total xylenes exceeded the allowable Washington State Model Toxics Control Act (MTCA) Method B cleanup limits in soil at the site. GEI has integrated the results of these investigations into the scope of work for this investigation. These reports are summarized as follows.

Limited Level II ESA at the Northwest Furniture Outlet, 5909 Sixth Avenue, GEI, July 2004

GEI completed a Limited Level II Environmental Site Investigation at the Northwest Furniture Outlet property in July 2004. GEI's field screening and follow up laboratory analysis of soil samples collected from hand auger borings resulted in solvent compound concentrations above the currently allowable Washington State Model Toxics Control Act (MTCA) limits.

Phase II ESA at the Highland Hills Shopping Center, 5907 - 6201 Sixth Avenue, by Environmental Partners, Inc, March 2005

Environmental Partners, Inc. (EPI) completed a Phase II Environmental Site Assessment (ESA) of portions of the site to test for the presence of potential contaminants of concern outside the excavation area.

Laboratory analysis of EPI's soil samples confirmed that contaminant concentrations exceeded the currently allowable MTCA Method A concentrations, but were within the allowable Method B levels for "Direct Contact" cleanup levels in all of the borings except at one boring (Boring No. B-8).

EPI submitted one soil sample from B-8. The soil sample was collected from approximately 11.5 feet below grade. Laboratory analysis of the sample resulted in 33 ppm PCE – the MTCA Method B Direct Contact limit in soil (MTCA 2005) was 19.6 ppm for PCE). This (EPI) sample also exceeded MTCA's limits for gasoline-range petroleum concentrations – the laboratory noted the following; "Chromatogram indicates sample contains products which are likely mineral spirits, light oil and lube oil".

EPI's Draft Phase II ESA Executive Summary also states the following.

*"The Firestone shop contains a sub-floor oil/water separator in the proximity of a parts cleaning station, which likely involved the past use of chlorinated solvents. There is a potential that past practices may have introduced solvents or petroleum hydrocarbons into the shallow soil in the vicinity of the oil/water separator" (Draft Phase II ESA Executive Summary, Highland Hills Shopping Center, Environmental Partners, Inc., March 2005).*

Environmental Cleanup Status Report at the NW Furniture Outlet Property, by GEI, August 2005

GEI completed a Limited Level II Environmental Site Investigation at the Northwest Furniture Outlet property in July 2004. GEI's field screening and follow up laboratory analysis of soil samples collected from hand auger borings resulted in solvent compound concentrations above the currently allowable Washington State Model Toxics Control Act Method A (MTCA (2004)) limits.

Based on these MTCA exceedences, the owner asked GEI to remove the impacted soil until: 1) the residual contaminant concentrations were within the currently allowable MTCA limits; or 2) continued removals of the affected soil would (potentially) jeopardize the structural integrity of the building.

Excavated soils with contaminant concentrations exceeding Ecology's Dangerous Waste limits were loaded directly into 20 cubic yard containers for disposal at Waste Management's RCRA-permitted (hazardous waste) facility and excavated soils with contaminant concentrations below the Dangerous Waste limits were loaded directly into Waste Management's 20 cubic yard containers for rail delivery to Waste Management's non-hazardous waste facility as per WDOE's "Contained In" authorization letter (*Disposal of Soils with F002-Listed Dangerous Waste Constituents, Letter from K. Seiler - WDOE SWRO Section Manager to Galloway Environmental, March 11, 2005*)

GEI removed approximately 175 tons of solvent-impacted soils from below the concrete floor of the facility and collected soil samples from the sidewalls and bottom of the excavation to test for potential residual contaminant concentrations in the excavation. The excavation was backfilled with pea gravel and a four-inch thick concrete slab will be poured over the gravel. GEI also installed a 20-mil, chemical resistant PVC liner at about three feet below grade to restrict potential residual vapors from entering the facility.

GEI collected interim soil samples from the sidewalls and excavation bottom for field screening and laboratory analysis during the removals to quantify the contaminant concentrations remaining in the soils. Field screening and laboratory tests of soil samples (collected from the excavation) that resulted in concentrations exceeding the targeted cleanup levels (MTCA Method B – Direct Contact levels) were subsequently excavated and the excavation was re-sampled.

Following the removals of as much of the impacted soils as possible, GEI collected representative soil samples from the sidewalls and bottom of the excavation to test for residual contaminant concentrations remaining in the excavation. Contaminant concentrations in soils exposed at the limits of the final excavation resulted in concentrations dry cleaning compounds above the WDOE-acceptable MTCA Method A and below the Method B Cleanup Levels for "Direct Contact" of the soils (*Environmental Cleanup Status Report, Galloway Environmental, Inc., August 2005*).

*BFRC Retail Store Number 015539, 5907 Sixth Avenue, Seacor International, Inc. Nov. 2, 2005*

SECOR International, Inc. completed a Limited Subsurface Assessment of the BFRC facility in November 2005. SECOR's assessment included the advancement of six Strataprobe penetrations to depths ranging from 13 to 19.5 feet bgs. Laboratory analysis of soil samples collected from the borings confirmed the presence of gasoline-range compounds, total xylenes and volatile organic compounds at concentrations exceeding the allowable MTCA Method A Cleanup Levels. No groundwater was encountered in any of the penetrations (*Limited Subsurface Assessment Report for BF Retail & Commercial*

*Operations, LLC, BFRC Retail Store Number 015539, 5907 6<sup>th</sup> Avenue, Tacoma, Washington, by SECOR International, Inc., November 2, 2005).*

*ESA Services at the BFRC Services Facility, by GEI, August 16, 2006*

GEI contracted Cascade Drilling to drill one soil boring near the furniture store to a maximum depth of 90 feet below the ground surface to investigate whether groundwater was present in the boring. If groundwater was encountered in the boring, then we planned to collect a water sample from the boring for chemical analysis for the contaminants of concern for the site.

GEI collected soil samples from the boring on five-foot intervals. The samples were field-screened for obvious signs of contamination (discolored soil or obvious odors, etc.), which are sometimes characteristic of environmental impacts to soil. The samples also were field-tested using a photoionization detector (PID – Mini-Rae), to screen for volatile compounds in the samples.

Since the field screening of the soils samples did not identify any indications of contamination in the samples, GEI submitted three soil samples from the boring for laboratory analysis. These samples were collected from approximately 15 feet, 30 feet and 60 feet of depth. The sampling protocols and procedures followed appropriate state and federal guidance documents, primarily EPA SW-846 and Washington State guidance documents (including EPA Method 5035A). OnSite Environmental Inc. analyzed the samples for the contaminants of concern using NWTPH-Gx/BTEX and Halogenated Volatiles (EPA Method 8260B).

Groundwater was not encountered in the soil boring - The boring was advanced to 90 feet belowground and the auger flight was lifted approximately 6-inches (off the bottom) to see if water would collect at the bottom of the boring – after waiting approximately 15 minutes no water was present in the boring. The Contaminants of Concern (COCs) were not detected in any of the samples submitted to the laboratory.

*Summary Status Letter, NW Furniture Store/ BFRC, Letter correspondence to Scott Rose (WDOE VCP) from GEI, dated March 30, 2009*

Gary Galloway summarized the environmental services completed at the BFRC and NW Furniture Outlet as follows.

***Northwest Furniture Outlet Property***

Based on MTCA exceedences identified during GEI's Phase II Environmental Site Investigation at the Furniture Store, the owner asked GEI to remove the impacted soil until: 1) the residual contaminant concentrations were within the currently allowable MTCA limits; or 2) continued removals of the affected soil would (potentially) jeopardize the structural integrity of the nearby buildings.

In 2005, GEI removed approximately 175 tons of solvent-impacted soils from below the concrete floor of the facility. Following the removals of as much of the impacted soils as possible, GEI collected representative soil samples from the sidewalls and bottom of the excavation to test for residual contaminant concentrations remaining in the excavation.

Also, Environmental Partners, Inc. (EPI) completed a Phase II Environmental Site Assessment (ESA) of portions of the site (including the BFRC -Firestone Store) to test for the presence of potential contaminants of concern outside the excavation area.

The Furniture Store building was demolished in April 2008 and in May 2008; GEI contracted ESN Drilling Company to inject chemical oxidation compounds (Potassium Permanganate) into the ground (to approximately 15 feet belowground) in the former footprint of the furniture store as shown in the attached figure - clearance soil sample data is provided in the attached table. Most of the former footprint of the furniture store has been capped with asphalt – with approximately ten feet of landscaped vegetation adjacent to the Firestone Store.

### ***BFRC Property***

Based on MTCA exceedences identified during EPI's Focused Phase II Environmental Site Investigation at the Firestone Store, the owner asked GEI to remove an underground oil/water separator and the impacted soil until: 1) the residual contaminant concentrations were within the currently allowable MTCA limits; or 2) continued removals of the affected soil would (potentially) jeopardize the structural integrity of the nearby buildings.

GEI removed the separator and impacted soil to a depth of 15 feet – the excavation measured 15'x15'x15'. Clearance soil samples were collected from the limits of the excavation and the excavation was backfilled with pea gravel and reinforced concrete was poured at the surface (*See attached figure and table*).

In September 2008 and in March 2009, GEI gravity feed approximately 300 gallons of 3% KMnO<sub>4</sub> (Potassium Permanganate) into the backfilled gravel (former oil/water separator location) to further reduce contaminant concentrations in the soils. The owner has asked GEI to continue the chemical oxidation treatment in the pea gravel semi-annually at the site.

#### **1.0.4 Purpose and ESA Objectives**

This investigation was targeted to determine whether remedial actions at the Site have successfully treated the impacted soils and groundwater to comply with current Model Toxics Control Act (MTCA) Cleanup Levels (CULs).

Data reviewed or obtained during this ESA were compared to current Washington State Model Toxics Control Act (MTCA - WAC 73-340) and the US Environmental Protection Agency (EPA) cleanup regulations for exceedences of potential contaminants of concern (COCs).

#### **1.1 REGIONAL PHYSIOGRAPHIC CONDITIONS**

The site is situated in the lowlands of the Puget Sound basin in western Washington. The Puget Sound is a north-south trending trough between the Olympic Mountains to the west

and the Cascade Mountains to the east. Elevation in the lowlands ranges from sea level up to several hundred feet. North-south trending valleys dominate the topography and low, nearly flat-topped highlands cut by streams. The Puget Sound occupies a large part of the western portion of the basin; lakes and streams occur frequently throughout the remainder of the basin.

The subject site is at an elevation of about 340 feet above mean sea level and is situated near the top of a gently rolling elevated plain which was formed during the last period of continental glaciation that ended approximately 13,500 years ago.

### *Climate*

Western Washington is characterized as having a mild marine climate. While the average total annual precipitation is approximately 37 inches, most of the rain falls between October and April.

## **1.2 REGIONAL AND SITE GEOLOGY**

The uplands of the Puget Sound Basin are separated by large Pleistocene glacial troughs now occupied by tidal waters, large lakes, or have been alluviated by streams that inherited the troughs with the retreat of the most recent glaciation. Native soils in the area consist of glacial drift and non-glacial Pleistocene deposits.

Soils exposed in the sidewalls and bottom of the excavation completed during the removals of impacted soils for this project consisted mainly of artificial fill materials ranging from six to nine feet of depth. The fill materials were predominately silty sand with gravel, organics and silty fine sand.

Glacial till, a dense heterogeneous mixture of silt, sand, and gravel underlies the fill.

## **1.3 REGIONAL AND SITE HYDROGEOLOGY**

### **1.3.1 Groundwater Occurrence**

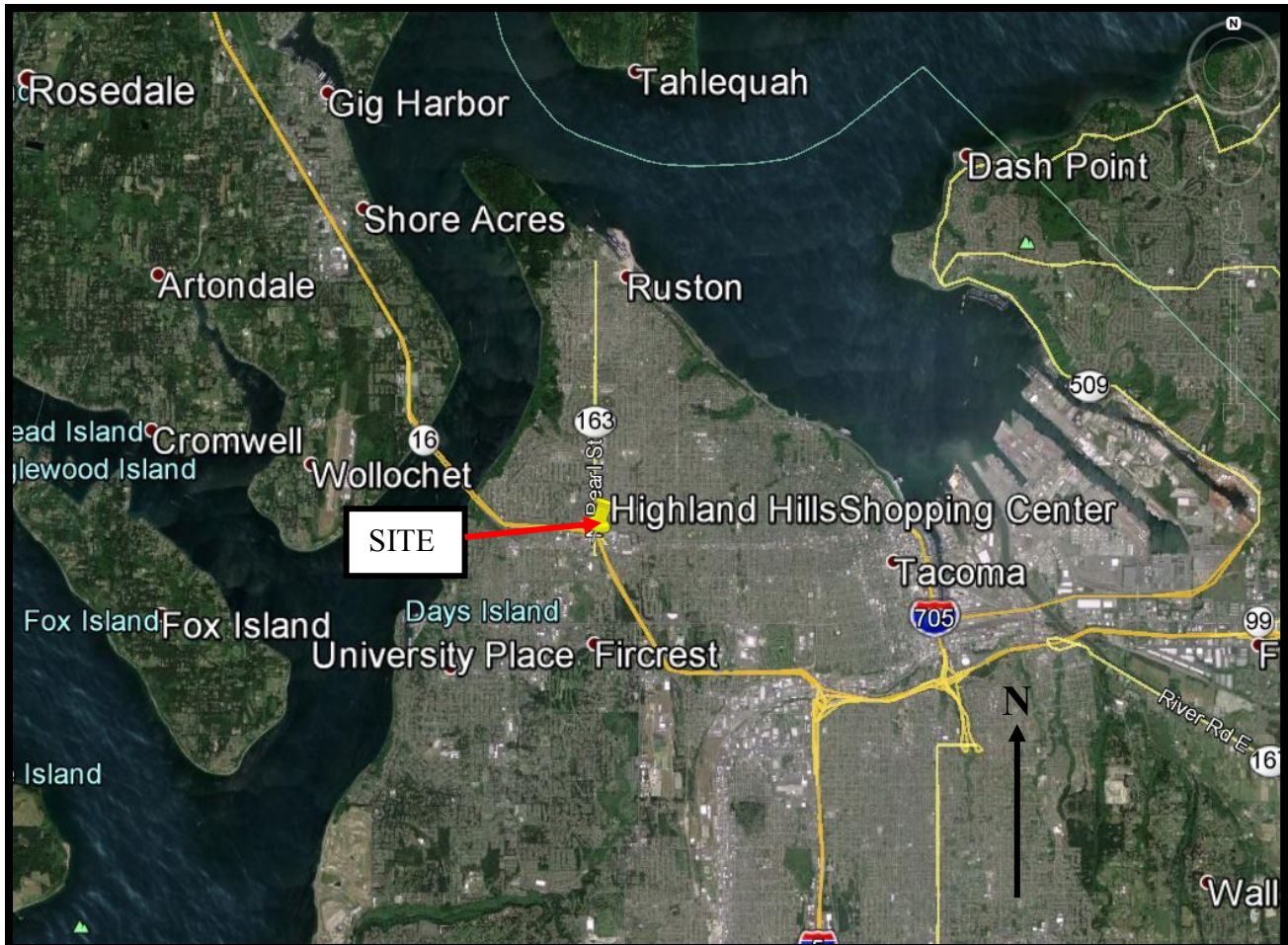
Based on the results of previous subsurface investigations, the depth of groundwater in vicinity of the subject property is greater than 90 feet below the ground surface (*See Section 1.0.3 – Previous Environmental Investigations*).

### **1.3.2 Current Groundwater Use**

The subject property is supplied water from a local municipal source. On site drainage is handled through on site ground retention and storm drains. Surface drainage appears to be adequate as there is no evidence of standing water, streams or creeks in the vicinity of the site.

## **1.4 SURFACE WATER**

On-site drainage is handled through on-site ground retention and storm drains. Surface drainage appears to be adequate and there is no evidence of standing water in vicinity of the site.

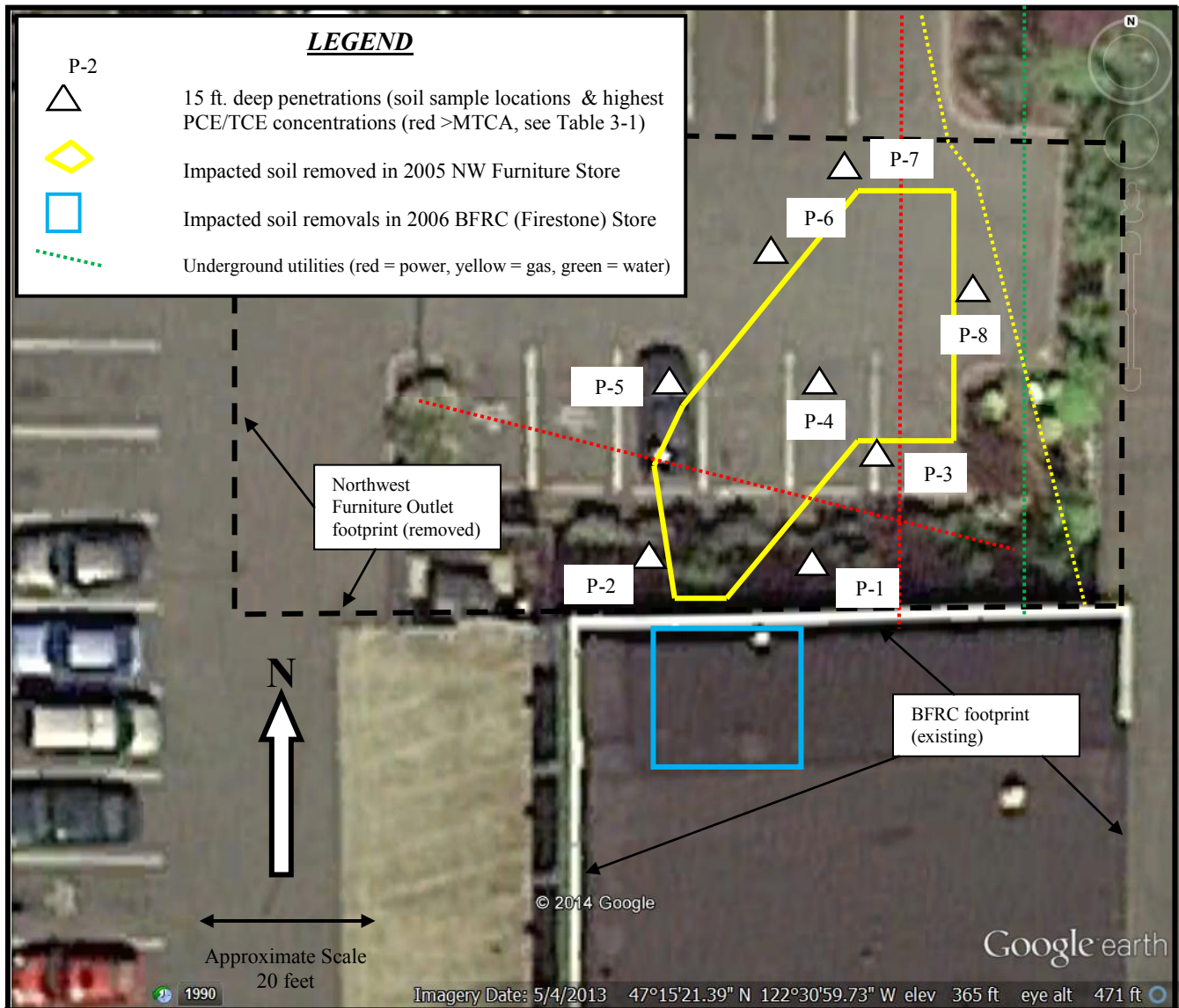


**FIGURE 1-1 – SITE LOCATION**

Highland Hills Property Focused SCCI

Source: Google Maps 2014, GEI Project #34045





**FIGURE 1-2 – SITE PLAN MAP**

Northwest Furniture & Bridgestone Firestone Retail Center Property Focused SCCI

Source: Google Maps 2014, GEI Project #34045

## **2.0 FIELD INVESTIGATION ACTIVITIES**

This investigation was targeted to determine whether remedial actions at the Site have successfully treated the impacted soils and groundwater to comply with current Model Toxics Control Act (MTCA) Cleanup Levels (CULs).

The Scope of Work consisted of collecting soil samples from six GeoProbe (direct push) penetrations in the vicinity of petroleum impacts that were identified in previous investigations and collecting groundwater samples from existing groundwater monitoring wells. The locations of the probe penetrations and groundwater wells are shown in Figure 3-1 – Sample Locations.

All of the samples collected during this investigation were placed in laboratory-supplied containers and properly labeled with the sample location, depth, and date and time of collection. The samples were stored in an iced cooler for delivery to the laboratory under standard chain-of-custody procedures (*See Appendix C – Sampling and Analytical Procedures*).

## **2.1 SOIL INVESTIGATION**

### **2.1.1 GeoProbe Penetrations**

Cascade Drilling Co. provided a truck mounted direct push rig (GeoProbe™) and crew to access subsurface soil samples for this study. The probe rig consisted of a hydraulically powered percussion/direct push machine that drives a tool string into the ground to access subsurface soils for sampling (*See Appendix A – GeoProbe Boring Logs*).

In order to reduce the potential for cross contamination of samples, the soil samples were collected in dedicated visqueen tube sample containers inside of a 1½ inch diameter, 5-foot long sampler attached to the end of the drive rods. The drive rods and other down hole equipment were thoroughly cleaned and decontaminated between probe locations as per EPA SW846 recommended decontamination guidelines.

### **2.1.2 Field Sampling and Screening of Soil Samples**

The sampling protocols and procedures followed appropriate state and federal guidance documents, primarily EPA SW-846 and Washington State guidance documents (including EPA Method 5035A). Soil samples were collected continuously from the ground surface to the maximum penetration depths using standard penetration techniques from the ground surface to depths ranging from 11 feet to 15 feet for field screening and laboratory analysis.

Soil samples and cuttings were visually examined and classified according to the Unified Soil Classification System (USCS). The samples were field-screened for obvious signs of contamination (discolored soil, sheen, obvious odors, etc.), which are sometimes characteristic of petroleum compounds in the soil. Discrete soil samples were also field-tested using a photoionization detector (PID - Photovac 2010 or equivalent) to screen for volatile compounds in the samples. The PID was fully calibrated using a 100-ppm span

gas and ambient air and the battery was fully charged prior to its use on-site. Detailed descriptions of observations made at each boring/probe have been provided in boring logs (*See Appendices A – GeoProbe Boring Logs and D – Sampling and Analytical Procedures*).

Based on field observations and the objectives of this investigation, the field sampler selected representative soil samples from each location for laboratory analysis. The soil samples were collected according to EPA and Washington State Department of Ecology (Ecology) sampling and preservation guidelines including EPA Method 5035A procedures.

The samples were placed in laboratory supplied glass jars and 40-ml glass VOA vials with Teflon-lined septum caps. The samples were properly labeled, stored in a chilled container (with ice), and hand-delivered to a Washington State-certified laboratory (OnSite Environmental Laboratory in Redmond, Washington) for analysis.

### **2.1.3 Chemical Analysis of Soil Samples**

Previous environmental studies at the Site have identified Halogenated Volatile Organic (HVOC) compounds as the primary Chemicals of Concern (COCs) beneath the footprint of the previous Northwest Furniture outlet. Therefore, representative soil samples were submitted to the OnSite Environmental Laboratory in Redmond, Washington for EPA Method 8260C (HVOC) analysis.

Samples collected by Seacor, Inc. in February of 2005 on the adjacent Bridgestone Firestone Retail Store (BFRC) identified gasoline-range petroleum and BTEX compound impacts to soil beneath the BFRC facility – OnSite Laboratory's Gasoline-range analysis of Seacor's samples states that the gasoline range compounds in the soil samples appear to be Mineral Spirits (*See Tables 3-1 and 3-2, Section 1.0.3 – Previous Environmental Studies, Appendix B – Laboratory Data*).

## **2.2 GROUNDWATER INVESTIGATION**

No groundwater was encountered during this investigation.

The objective of the sampling program was to collect continuous soil samples from the ground surface to the bottom of the penetrations for field screening and confirmatory laboratory chemical analysis by OnSite Environmental Laboratory's facility in Redmond, Washington.

The sampling protocols and procedures followed appropriate state and federal guidance documents, primarily EPA SW-846 and Washington State guidance documents (including EPA Sampling Method 5035A).

## **2.3 QUALITY ASSURANCE/QUALITY CONTROL**

Ecology- and EPA-recommended Quality Assurance/Quality Control Procedures (QA/QC) field sampling, decontamination of equipment, and shipping and handling procedures were followed throughout the field investigation. The analytical results indicate that the

sampling equipment was properly decontaminated and that no cross-contamination occurred between samples and laboratory results are within method-specified QA/QC limits.

#### **2.4 HEALTH AND SAFETY**

The field investigation activities at this site were conducted in accordance with GEI's Corporate Health and Safety Program. The health and safety program was successfully implemented and no adverse health and safety incidents were observed or reported.

### **3.0**      **CONTAMINATION ASSESSMENT**

#### **3.0.1**      ***Soil Sample Results***

Soil samples — Laboratory analysis of the soil samples resulted in concentrations of TCE and PCE compounds above the currently allowable Washington State Model Toxics Control Act Method B (MTCA) Cleanup Levels (CULs) for Unrestricted Land Use (ULU) in one of the eight soil penetrations sampled during this investigation (*See Table 3-1 — Sample Results Summary, below*).

### **3.1**      **CONCLUSIONS**

Additional environmental investigation and/or remedial action is recommended to comply with current MTCA regulations.

**Table 3-1 Soil Sample Results Summary**

Sample No. & depths	PID Readings	Laboratory Analysis – mg/kg (ppm)					
		TCE	PCE	(cis) 1,2 Dichloro-ethene	1,1,1,2-Tetrachloro-ethane	1,2-Dichlorobenzene	Vinyl Chloride
P-1@2.6'	>50	79	7900	5.4	0.44	0.073	<0.058
P1@8'	0.0	0.010	0.80	0.39	<0.001	<0.001	<0.0009
P1@8' dup**	0.0	<0.086	0.12	2.4	<0.086	<0.086	0.086
P1@11'	0.0	0.0063	0.061	0.037	<0.001	<0.0009	0.0009
P2@11'	0.0	<0.0009	0.0054	0.002	<0.0009	<0.0009	0.0009
P3@2.6'	0.0	0.037	26	0.0023	<0.0007	<0.0007	0.0007
P-3@7'	0.0	0.0027	0.015	13	<0.0065	<0.0065	0.0011
P4@11'	1.8	0.83	0.16	45	<0.091	<0.091	0.0012
P5@7.5'	0.0	0.0023	0.0067	0.14	<0.001	<0.001	0.0010
P6@8'	0.0	0.010	0.0025	0.053	<0.001	<0.001	0.0010
P7@8'	0.0	0.26	0.0093	1.1	<0.0011	<0.061	0.0011
P8-11'	1.2	0.84	0.24	3.5	<0.063	<0.063	0.0009
B-1@13'***	0.0	0.32	1.5	0.29	<0.10	<0.10	<0.10
B-2@11'***	0.8	0.90	13	0.33	<0.08	<0.08	<0.08
B-3@17'***	0.0	0.36	2.0	<0.077	<0.077	<0.077	<0.077
B4@19'***	2.8	3.6	29	0.16	<0.11	<0.11	<0.11
MTCA Limits Method B Residential (top) Method C Industrial (bottom)		<u>40 (12*)</u> 1750 (2850*)	<u>480 (476*)</u> 21000 (62500*)	<u>160</u> 7000	<u>2400</u> 105000	<u>160</u> 315000	<u>24 (0.67*)</u> 10500 (87.5*)

\* Method B & C values for carcinogenic compounds are listed in parenthesis

\*\* Duplicate (laboratory) analysis for this sample

\*\*\* Collected by GEI during Seacor's Site Investigation in February 2005

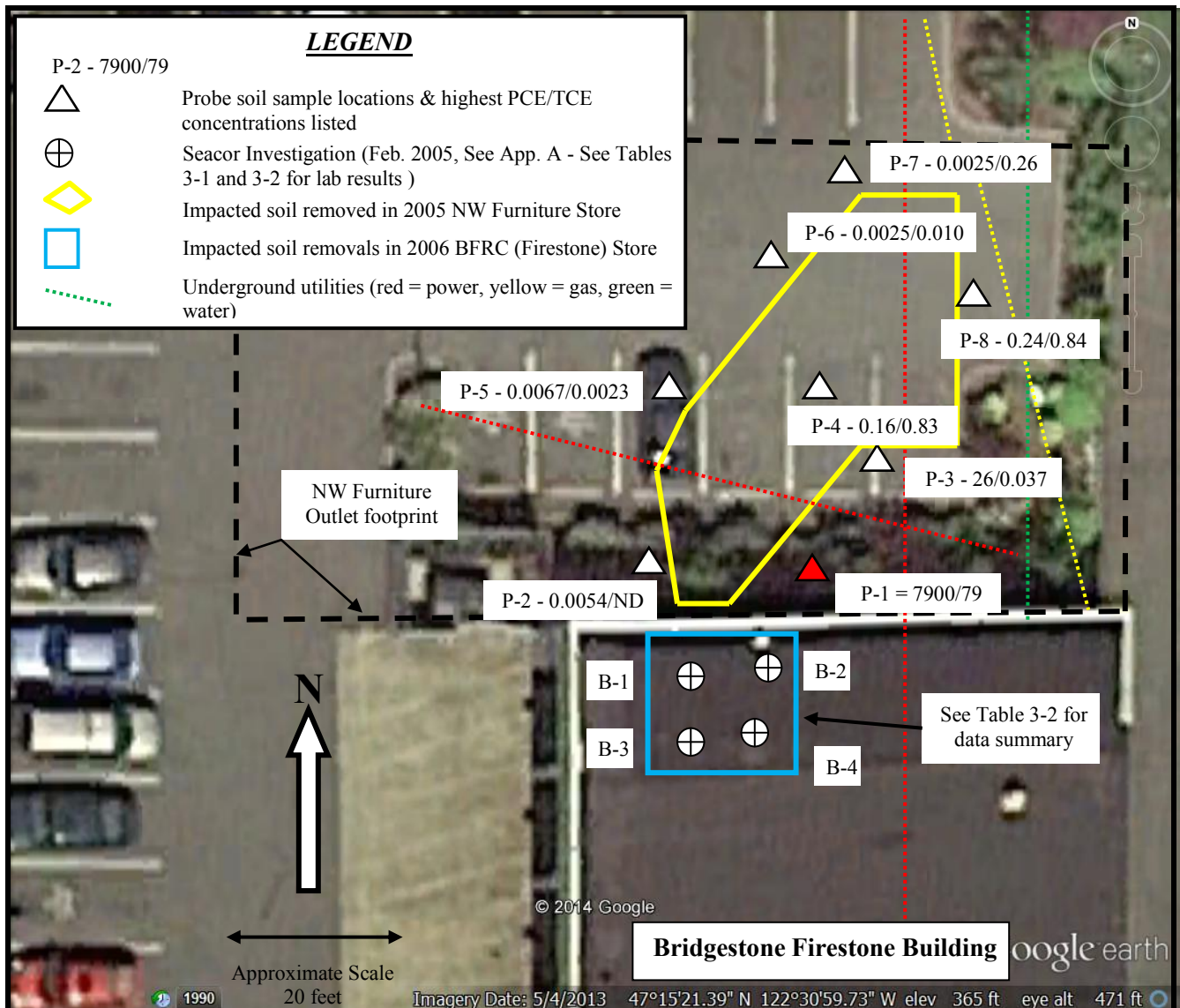
Sample locations shown in Figure 3-1 (Also see Appendices)

**Table 3-2 BFRC Soil Sample Results Summary (Petroleum Compounds only)\***

Sample No. & depths**	PID Readings	Laboratory Analysis – mg/kg (ppm)				
		Gx	Benzene	Toluene	Ethyl Benzene	Xylenes
B-1@13'	---	2400	<0.02	0.28	2.5	10.6
B-2@11'	---	7100	<0.02	0.26	7.0	27
B-3@17'	---	7900	0.059	1.3	5.5	31
B-4@19'	---	4600	0.052	0.47	3.9	15.4
MTCA Limits Method B Residential (top) Method C Industrial (bottom)		No CUL No CUL	320 14000	6400 280000	8000 350000	16000 700000

\* Collected by GEI during Seacor's Investigation in February 2005 (See Appendices), See Table 3-2 for EPA 8260 results

\*\*Sample locations shown in Figure 3-1



**FIGURE 3-1 — SOIL SAMPLE LOCATIONS**

Northwest Furniture & Bridgestone Firestone Retail Center Property Focused SCCI  
 Modified after Google May 2013, GEI Project #34045



#### 4.0 *SPECIAL TERMS AND CONDITIONS*

This report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based upon the facts currently available within the limits of the existing data, scope of work, budget and schedule and may undergo revision as additional data are obtained. To the extent that more definitive conclusions are desired by the client than are warranted by the currently available facts, it is specifically GEI's intent that the conclusions and recommendations stated in our report is intended as guidance and not necessarily a firm course of action except where explicitly stated as such. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

GEI makes no claims or guarantees with regard to this environmental review. These environmental services have been completed in accordance with the degree of skill and care required by customarily accepted good practices and procedures. This report should not be considered as a complete environmental assessment of the areas in question, but rather a preliminary report of existing conditions.

This report was prepared for the use of Highland Sixth Associates, LP ("Client") and the conclusions and recommendations presented in this report are based upon the agreed scope of work outlined in the report and the Contract for Professional Services between Client and Galloway Environmental, Inc. ("Consultant"). Use or misuse of this report, or the reliance upon the findings hereof by any parties other than the Client, is at their own risk. Neither Client nor Consultant make any representations or warranty to such other parties as to the accuracy or completeness of this report or to the suitability of its use by such other parties for any purpose whatever, known or unknown to Client or Consultant. Neither Client nor Consultant shall have any liability to, or indemnifies or holds harmless third parties for any losses incurred by the actual or purported use or misuse of this report.

## 5.0 REFERENCES

- BFRC Retail Store Number 015539, 5907 Sixth Avenue, Seacor International, Inc., Nov. 2, 2005
- Cleanup Levels and Risk Calculations under the MTCA (CLARC), WDOE, 2005 and 2014
- Dangerous Waste Regulations, Chapter 173-303 WAC, WDOE, Amended April 1991
- Environmental Cleanup Status Report at the NW Furniture Outlet Property, by GEI, August 2005
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods - SW846, EPA, Amended April 2007
- ESA Services at the BFRC, by GEI, August 16, 2006
- Limited Level II ESA at the Northwest Furniture Outlet, 5909 Sixth Avenue, by GEI, July 2004
- Model Toxics Control Act Cleanup Regulation, Chapter 173-303 WAC,, WDOE, February 2001 and 2005
- Phase II ESA at the Highland Hills Shopping Center, 5907 - 6201 Sixth Avenue, by Environmental Partners, Inc, March 2005
- Summary Status Letter, NW Furniture Store/ BFRC, by GEI, March 30. 2009

*APPENDIX A*

*GEOPROBE SOIL BORING LOGS*



Project No. 34045

**SOIL BORING LOG**

Sheet 1 of 8

Project Name BFRC SCCI Boring No. P-1 Date & Time Started 11/18/2014  
 Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan  
 Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'  
 Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA  
 Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'  
 Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA(ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Landscaped area - soil covered
	1@2.6						0 to 0.75' - Brown, medium grained sand (topsoil), damp, medium dense (md), no odors or stains
							0.75' to 2' - Brown, med. to course grained sand with pebbles, damp, medium dense (md), no odors, etc.
5			>50				2' to 2.7' - Dark brown to black, course grained sand with gravel, md, damp, strong solvent odors, <b>Sample # P1@2.6</b>
			>50				2.7' to 5.0' - Brown, medium grained sand, md, damp, moderate to slight solvent odors
	1@8'						5.0' to 6.5' - Light brown, medium grained sand, md, damp, slight odor
			22				6.5' to 10' Brown, medium grained sand, md, damp, slight odor <b>Sample # P1@8', PID = 22 @ 8'</b>
10			0.0				10' to 15' - Tan to gray, med grained sand, damp, dense, no odors or stains, <b>Sample # P1@11'</b>
	1@11'						
			0.0				No water
15							

Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 3 of 8

Project Name BFRC SCCI Boring No. P-3 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA (ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
			0.0				0" to 4" - Asphalt
							4" to 2.5' - Brown, med. gr. sand, damp, med. dense, no odors or stains
			6.0				
							2.5' to 2.6' - Dark brown to black, med. gr. sand, damp, med. dense, slight solvent odor
5			0.0				2.6' to 5' - Brown to black, med. gr. sand, damp, med. dense, no odors, etc.
	3@7'		0.0				5' to 12' - Dark & light brown (interbedded), med. grained sand, damp, md, no odors, etc., Sample P.3@7'
			0.0				
10			0.0				
			0.0				
			0.0				12' to 15' - Light gray to tan, course grained sand, damp, no odors
15							
20							

Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 2 of 8

Project Name BFRC SCCI Boring No. P-2 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA (ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Landscaped area - 5" topsoil, 5" peat
							10" to 15" - Brown, fine grained sand (topsoil), moist, medium dense (md), no odors or stains
			0.0				15" to 7.5' - Fill Pea gravel (clean <3/4"), remedial excavation backfill, damp, loose, no odors, etc.
5							
							7.5' to 9' - Tan, course grained sand, damp, md, no odors, etc.
			0.0				9' to 10' - Dark brown, course grained sand, damp, md, no odors, e
10							10' to 10.5' - Brown, med. to course grained sand, damp,
	2@11'		0.0				md, no odors, etc.
			0.0				10.5' to 11.5' - Tan, med. to course grained sand, damp, no odors
							11.5' to 14' - Brown, med. to course grained sand, damp, no odors
							14' to 15' - Dark brown, fine grained sand, MD, damp
15							
20							

Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 4 of 8

Project Name BFRC SCCI Boring No. P-4 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 11'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 11'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA(ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
			0.0				0" to 4" - Asphalt
							4" to 2' - Brown, med. gr. sand, damp, med. dense, no odors or stains
			0.0				2' to 5' - Same with broken pieces of concrete dense, slight solvent odor
5			0.0				5' to 9' - Pea gravel (remedial excavation backfill), damp, no odors damp, md, no odors, etc., Sample P4@7'
			0.0				
			0.0				9' to 10' - Dark & light brown, med. grained sand, moist, med. dense
10	4@11'		0.0				10' to 11' - Dark brown to black, med. grained sand with roots (native), damp, no odors, Sample P4@11'
15							
20							

Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 5 of 8

Project Name BFRC SCCI Boring No. P-5 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA(ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
			0.0				0" to 4" - Asphalt
							4" to 1' - Tan to gray, course gr. sand, damp, med. dense, no odors
			0.0				1' to 2.5' - reddish brown, medium gr. sand with pebbles (15%), damp, med. dense, no odors
5			0.0				2.5' to 7.5' - Greenish gray, med. grained sand, damp, med. dense, no odors, etc.
	5@7.5'		0.0				7.5' to 10.5' - Dark brown to black, med. gr. sand with roots & abundant organics (native), damp, md, no odors, etc.
			0.0				Sample P5@7.5'
10							10.5' to 15' - Tan, course. grained sand, damp, med. dense
			0.0				
15			0.0				
20							



Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 6 of 8

Project Name BFRC SCCI Boring No. P-6 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA(ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
			0.0				0" to 4" - Asphalt
							4" to 2.5' - Brown, med. to course gr. sand with pebbles & gravel, damp, med. dense, no odors
5			0.0				2.5' to 6.5' - Greenish tan, med. grained sand, damp, med. dense, no odors, etc.
							6.5' to 7.5' - Brown to black, med. gr. sand, damp, md, no odors
	<b>P6@8</b>		0.0				7.5' to 12' - Brown to black, course gr. sand with wood chips & roots, damp, md, no odors, Sample <b>P6@8'</b>
10			0.0				
							12' to 14' - Reddish brown, med. to course. grained sand, damp, med. dense, no odors, etc.
15			0.0				14' to 15' - Gray, course. grained sand, damp, med. dense, no odors, etc.
20							



Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 7 of 8

Project Name BFRC SCCI Boring No. P-7 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA (ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
							0" to 4" - Asphalt
							4" to 5' - No sample recovery (cobble in shoe)
5			0.0				5' to 7' - Tan, med. grained sand, damp to moist, med. dense, no odors, etc.
			0.0				7' to 8' - Gray, med. gr. sand, damp, med. dense, no odors
	<b>P7@8</b>		0.0				8' to 13' - dark brown, course gr. sand with wood chips & roots, damp, md, no odors, Sample <b>P7@8'</b>
10			0.0				
							13' to 14' - Reddish brown, med. to course. grained sand, damp, med. dense, no odors, etc.
15			0.0				14' to 15' - Gray, course. grained sand, damp, med. dense, no odors, etc.
20							

Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 8 of 8

Project Name BFRC SCCI Boring No. P-8 Date & Time Started 11/18/2014  
 Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan  
 Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'  
 Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA  
 Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'  
 Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA (ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
							0" to 4" - Asphalt
			0.0				4" to 1' - Gray, course grained sand with pebbles, damp, med. dense, no odors
5			0.0				1' to 2' - Reddish brown, med. grained sand, damp, med. dense, no odors, etc.
			0.0				2' to 2.1' - Black organic rich with roots, (native)
			0.0				2.1' to 6' - Reddish brown, med. gr. sand, damp, med. dense, no odors, etc.
			0.0				6' to 7' - Gray, course gr. sand, damp, med. dense, no odors
10							7' to 9.5' - Dark brown, course gr. sand with gravel, damp, med. dense, no odors
	<b>P8@11</b>		0.0				9.5' to 12.5' - Dark brown to black, med. grained sand with lots of organics, damp, med. dense, no odors, etc. <b>P8@11'</b>
							12.5' to 14.5' - Light brown, course. grained sand, damp, med. dense, no odors
15			0.0				14.5' to 15' - Light brown, course. grained sand with pebbles, damp, med. dense, no odors, etc.
20							

Signature *Gary Galloway*

Date November 18, 2014

*APPENDIX B*

*LABORATORY ANALYTICAL RESULTS*



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 2, 2014

Gary Galloway  
Galloway Environmental, Inc.  
3102 220<sup>th</sup> Place SE  
Sammamish, WA 98075

Re: Analytical Data for Project Highland Hills  
Laboratory Reference No. 1411-215

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on November 19, 2014.

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 2, 2014  
Samples Submitted: November 19, 2014  
Laboratory Reference: 1411-215  
Project: Highland Hills

### Case Narrative

Samples were collected on November 19, 2014 and received by the laboratory on November 19, 2014. 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.

One Method 5035A VOA vial containing a stir bar and two vials without stir bars were provided for all samples except sample P3 @ 2.6' which had one of each type of vial. Method 5035A states that for low-level VOC analysis the purge-and-trap system employed must be capable of agitating the sealed sample during the purging process. The purge-and-trap system that OnSite Environmental utilizes for the analysis of low-level VOCs has a stir motor that spins a magnetic stir bar within the sample thereby agitating the sample and providing more efficient purging.

Samples 2 through 11 were initially analyzed by way of the low-level method (VOAs with stir bars). Due to either carryover from previous samples or in some cases dirt between the VOA cap and septum which caused leaks in the sealed VOA environment and therefore rendered the data unusable, samples P1 @ 8', P1 @ 11', P2 @ 11', P5 @ 7.5', and P6 @ 8' had to be reanalyzed. Because there was not a second VOA vial containing a stir bar to analyze, the samples were reanalyzed via low-level analysis using VOA vials without stir bars and reported.

Sample P1 @ 8' was analyzed three times with varying concentrations of target analytes, indicating non-homogeneity. The first set of data contained carryover and was not reported, but the other two sets of data are being reported for client's information.

A 4-ounce jar was not provided for the dry weight analysis of sample P3 @ 2.6'. Due to the high concentration of Tetrachloroethene present in the low-level analysis, the sample had to be diluted and analyzed via the high-level method, thereby using both provided VOA vials and leaving no sample with which to perform the dry weight. The sample is therefore reported on a wet weight basis.

Some MTCA Method A cleanup levels are non-achievable for sample P4 @ 11' due to sample matrix effects.

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: December 2, 2014  
 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P1 @ 2.6'</b>					
Laboratory ID:	11-215-01					
Dichlorodifluoromethane	ND	0.082	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.29	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.29	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.29	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.29	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	5.4	0.058	EPA 8260C	11-24-14	11-24-14	
Bromochloromethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	79	1.2	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.29	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.058	EPA 8260C	11-24-14	11-24-14	

Date of Report: December 2, 2014  
 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P1 @ 2.6'</b>					
Laboratory ID:	11-215-01					
1,1,2-Trichloroethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Tetrachloroethene	7900	120	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Dibromochloromethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromoethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Chlorobenzene	0.13	0.058	EPA 8260C	11-24-14	11-24-14	
1,1,1,2-Tetrachloroethane	0.44	0.058	EPA 8260C	11-24-14	11-24-14	
Bromoform	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Bromobenzene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,1,2,2-Tetrachloroethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichloropropane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
2-Chlorotoluene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
4-Chlorotoluene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,3-Dichlorobenzene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,4-Dichlorobenzene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,2-Dichlorobenzene	0.073	0.058	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromo-3-chloropropane	ND	0.29	EPA 8260C	11-24-14	11-24-14	
1,2,4-Trichlorobenzene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Hexachlorobutadiene	ND	0.29	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichlorobenzene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>117</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>106</i>	<i>79-126</i>				

Date of Report: December 2, 2014  
 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P1 @ 8'</b>					
Laboratory ID:	11-215-02					
Dichlorodifluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	0.034	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	0.39	0.00089	EPA 8260C	11-25-14	11-25-14	E
Bromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	0.010	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	

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**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P1 @ 8'</b>					
Laboratory ID:	11-215-02					
1,1,2-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.80	0.00089	EPA 8260C	11-25-14	11-25-14	E
1,3-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>79-126</i>				

Date of Report: December 2, 2014  
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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P1 @ 8'</b>					
Laboratory ID:	11-215-02					
Dichlorodifluoromethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.43	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.43	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.43	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.43	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	0.16	0.086	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	2.4	0.086	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.43	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.086	EPA 8260C	11-25-14	11-25-14	

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**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P1 @ 8'</b>					
Laboratory ID:	11-215-02					
1,1,2-Trichloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.12	0.086	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.43	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.43	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>93</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>109</i>	<i>79-126</i>				

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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P1 @ 11'</b>					
<b>Laboratory ID:</b>	<b>11-215-03</b>					
Dichlorodifluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	0.0010	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	0.037	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	0.0063	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P1 @ 11'</b>					
Laboratory ID:	11-215-03					
1,1,2-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.061	0.00089	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,2,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>115</i>	<i>79-126</i>				

Date of Report: December 2, 2014  
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 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P2 @ 11'</b>					
<b>Laboratory ID:</b>	<b>11-215-04</b>					
Dichlorodifluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	0.0020	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	

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**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P2 @ 11'</b>					
Laboratory ID:	11-215-04					
1,1,2-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.0054	0.00089	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,2,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>79-126</i>				

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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P3 @ 2.6'</b>					
Laboratory ID:	11-215-05					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	0.0023	0.00074	EPA 8260C	11-24-14	11-24-14	
Bromochloromethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	0.037	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloropropane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P3 @ 2.6'</b>					
Laboratory ID:	11-215-05					
1,1,2-Trichloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Tetrachloroethene	26	0.97	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Dibromochloromethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromoethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Chlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1,1,2-Tetrachloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Bromoform	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Bromobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1,2,2-Tetrachloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichloropropane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
2-Chlorotoluene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
4-Chlorotoluene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,3-Dichlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,4-Dichlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2-Dichlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromo-3-chloropropane	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
1,2,4-Trichlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Hexachlorobutadiene	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>124</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>117</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>109</i>	<i>79-126</i>				

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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P3 @ 7'</b>					
Laboratory ID:	11-215-06					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	0.019	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	0.015	0.0011	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	1.2	0.065	EPA 8260C	11-25-14	11-26-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	13	1.3	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	0.0027	0.0011	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P3 @ 7'</b>					
Laboratory ID:	11-215-06					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Tetrachloroethene	0.015	0.0011	EPA 8260C	11-24-14	11-24-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chlorobenzene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromoform	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,1,2,2-Tetrachloroethane	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,2,3-Trichloropropane	ND	0.065	EPA 8260C	11-25-14	11-26-14	
2-Chlorotoluene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
4-Chlorotoluene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,3-Dichlorobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,4-Dichlorobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,2-Dichlorobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,2-Dibromo-3-chloropropane	ND	0.33	EPA 8260C	11-25-14	11-26-14	
1,2,4-Trichlorobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
Hexachlorobutadiene	ND	0.33	EPA 8260C	11-25-14	11-26-14	
1,2,3-Trichlorobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>123</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>88</i>	<i>79-126</i>				

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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P4 @ 11'</b>					
Laboratory ID:	11-215-07					
Dichlorodifluoromethane	ND	0.0017	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.0062	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	0.011	0.0012	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.0062	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	0.012	0.0012	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.0062	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.0062	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	4.7	0.091	EPA 8260C	11-25-14	11-26-14	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	45	1.8	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	0.83	0.091	EPA 8260C	11-25-14	11-26-14	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.091	EPA 8260C	11-25-14	11-26-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P4 @ 11'</b>					
Laboratory ID:	11-215-07					
1,1,2-Trichloroethane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Tetrachloroethene	0.16	0.091	EPA 8260C	11-25-14	11-26-14	
1,3-Dichloropropane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Dibromochloromethane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,2-Dibromoethane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Chlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,1,1,2-Tetrachloroethane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Bromoform	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Bromobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,1,2,2-Tetrachloroethane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,2,3-Trichloropropane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
2-Chlorotoluene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
4-Chlorotoluene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,3-Dichlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,4-Dichlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,2-Dichlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,2-Dibromo-3-chloropropane	ND	0.45	EPA 8260C	11-25-14	11-26-14	
1,2,4-Trichlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Hexachlorobutadiene	ND	0.45	EPA 8260C	11-25-14	11-26-14	
1,2,3-Trichlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>107</i>	<i>79-126</i>				

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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P5 @ 7.5'</b>					
Laboratory ID:	11-215-08					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	0.0091	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	0.14	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	0.0023	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P5 @ 7.5'</b>					
Laboratory ID:	11-215-08					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.0067	0.0010	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>79-126</i>				

Date of Report: December 2, 2014  
 Samples Submitted: November 19, 2014  
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 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P6 @ 8'</b>					
Laboratory ID:	11-215-09					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloromethane	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromomethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloroethane	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Iodomethane	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
Methylene Chloride	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
(trans) 1,2-Dichloroethene	0.021	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
(cis) 1,2-Dichloroethene	0.053	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromochloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloroform	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Trichloroethene	0.010	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Dibromomethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2-Chloroethyl Vinyl Ether	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	

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**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P6 @ 8'</b>					
Laboratory ID:	11-215-09					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Tetrachloroethene	0.0025	0.0010	EPA 8260C	11-26-14	11-26-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromoform	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Hexachlorobutadiene	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>79-126</i>				

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 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P7 @ 8'</b>					
Laboratory ID:	11-215-10					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	0.0013	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	0.0012	0.0011	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	0.49	0.061	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	1.1	0.061	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	0.26	0.061	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	

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**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P7 @ 8'</b>					
Laboratory ID:	11-215-10					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Tetrachloroethene	0.0093	0.0011	EPA 8260C	11-24-14	11-24-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chlorobenzene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromoform	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,1,2,2-Tetrachloroethane	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.061	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.31	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.31	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>79-126</i>				

Date of Report: December 2, 2014  
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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P8 @ 11'</b>					
Laboratory ID:	11-215-11					
Dichlorodifluoromethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	0.0096	0.00088	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	0.0015	0.00088	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	0.018	0.00088	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	3.5	0.063	EPA 8260C	11-26-14	11-26-14	
Bromochloromethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	0.84	0.063	EPA 8260C	11-26-14	11-26-14	
1,2-Dichloropropane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	11-25-14	11-25-14	

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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P8 @ 11'</b>					
<b>Laboratory ID:</b>	11-215-11					
1,1,2-Trichloroethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.24	0.063	EPA 8260C	11-26-14	11-26-14	
1,3-Dichloropropane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,1,2,2-Tetrachloroethane	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichloropropane	ND	0.063	EPA 8260C	11-26-14	11-26-14	
2-Chlorotoluene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
4-Chlorotoluene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,3-Dichlorobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,4-Dichlorobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,2-Dichlorobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,2-Dibromo-3-chloropropane	ND	0.31	EPA 8260C	11-26-14	11-26-14	
1,2,4-Trichlorobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
Hexachlorobutadiene	ND	0.31	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichlorobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>85</i>	<i>79-126</i>				

Date of Report: December 2, 2014  
 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1124S1					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Bromochloromethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	

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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB1124S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Chlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Bromoform	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Bromobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>120</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>119</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>113</i>	<i>79-126</i>				

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 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1125S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	

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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB1125S2				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>128</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>119</i>	<i>79-126</i>				

Date of Report: December 2, 2014  
 Samples Submitted: November 19, 2014  
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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1126S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloromethane	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromomethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloroethane	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Iodomethane	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
Methylene Chloride	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromochloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloroform	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Trichloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Dibromomethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	

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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB1126S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromoform	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>116</i>	<i>79-126</i>				

Date of Report: December 2, 2014  
 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1124S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0539</b>	<b>0.0548</b>	0.0500	0.0500	108	110	66-129	2	15	
Benzene	<b>0.0590</b>	<b>0.0574</b>	0.0500	0.0500	118	115	71-123	3	15	
Trichloroethene	<b>0.0529</b>	<b>0.0533</b>	0.0500	0.0500	106	107	75-115	1	15	
Toluene	<b>0.0533</b>	<b>0.0536</b>	0.0500	0.0500	107	107	75-120	1	15	
Chlorobenzene	<b>0.0455</b>	<b>0.0453</b>	0.0500	0.0500	91	91	75-121	0	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>114</i>	<i>115</i>	<i>76-131</i>			
<i>Toluene-d8</i>					<i>109</i>	<i>113</i>	<i>82-129</i>			
<i>4-Bromofluorobenzene</i>					<i>103</i>	<i>106</i>	<i>79-126</i>			

Date of Report: December 2, 2014  
 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1125S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0445</b>	<b>0.0448</b>	0.0500	0.0500	89	90	66-129	1	15	
Benzene	<b>0.0492</b>	<b>0.0486</b>	0.0500	0.0500	98	97	71-123	1	15	
Trichloroethene	<b>0.0475</b>	<b>0.0478</b>	0.0500	0.0500	95	96	75-115	1	15	
Toluene	<b>0.0482</b>	<b>0.0480</b>	0.0500	0.0500	96	96	75-120	0	15	
Chlorobenzene	<b>0.0459</b>	<b>0.0455</b>	0.0500	0.0500	92	91	75-121	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					98	95	76-131			
<i>Toluene-d8</i>					99	97	82-129			
<i>4-Bromofluorobenzene</i>					107	104	79-126			

Date of Report: December 2, 2014  
 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1126S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0472</b>	<b>0.0478</b>	0.0500	0.0500	94	96	66-129	1	15	
Benzene	<b>0.0500</b>	<b>0.0504</b>	0.0500	0.0500	100	101	71-123	1	15	
Trichloroethene	<b>0.0478</b>	<b>0.0483</b>	0.0500	0.0500	96	97	75-115	1	15	
Toluene	<b>0.0488</b>	<b>0.0488</b>	0.0500	0.0500	98	98	75-120	0	15	
Chlorobenzene	<b>0.0463</b>	<b>0.0467</b>	0.0500	0.0500	93	93	75-121	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>94</i>	<i>99</i>	<i>76-131</i>			
<i>Toluene-d8</i>					<i>95</i>	<i>102</i>	<i>82-129</i>			
<i>4-Bromofluorobenzene</i>					<i>103</i>	<i>108</i>	<i>79-126</i>			

Date of Report: December 2, 2014  
Samples Submitted: November 19, 2014  
Laboratory Reference: 1411-215  
Project: Highland Hills

### % MOISTURE

Date Analyzed: 11-24-14

Client ID	Lab ID	% Moisture
P1 @ 2.6'	11-215-01	5
P1 @ 8'	11-215-02	9
P1 @ 11'	11-215-03	9
P2 @ 11'	11-215-04	7
P3 @ 7'	11-215-06	14
P4 @ 11'	11-215-07	29
P5 @ 7.5'	11-215-08	17
P6 @ 8'	11-215-09	15
P7 @ 8'	11-215-10	19
P8 @ 11'	11-215-11	18



### 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-naphthalene) 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



# 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

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:

11-215

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Company: Chalkwater Env. Env.  
Project Number: Geyer Galloway  
Project Name: Hickland Hills  
Project Manager: Gary Galloway  
Sampled by: Gary Galloway

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

Total MTCA Metals

TCLP Metals

HEM (oil and grease) 1664A

% Moisture

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	Comments/Special Instructions
1	P1 @ 2.6'	11/19/14	9:20	S	3	
2	" 8'			X		
3	" 11'			X		
4	P2 @ 11'			X		
5	P3 @ 2.6'			X		
6	" 7'			X		
7	P4 @ 11'			X		
8	P5 @ 7.5'			X		
9	P6 @ 8'			X		
10	P7 @ 8'			X		
11	P8 @ 11'			X		

Relinquished	Received	Relinquished	Received	Relinquished	Received	Relinquished	Received	Relinquished	Received

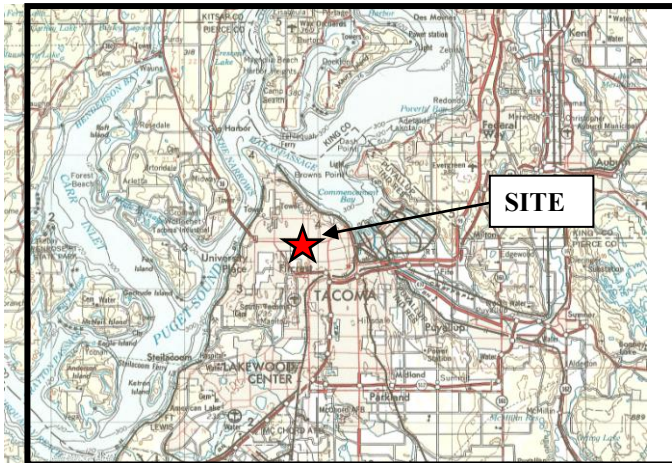
**APPENDIX C**

**PREVIOUS ENVIRONMENTAL REPORTS**

*(These reports have previously been submitted, they are available upon request)*

SITE CLEANUP CONFIRMATION  
INVESTIGATION

At the  
**HIGHLAND HILLS SHOPPING CENTER**  
**NORTHWEST FURNITURE & BRIDGESTONE FIRESTONE RETAIL CENTER**



Prepared for  
**HIGHLAND SIXTH ASSOCIATES LP**  
C/o Koehler & Company  
Attn: Doug McFadyen  
1924 1st Avenue, 3rd Floor  
Seattle, Washington 98101

Prepared by

Gary Galloway, LHG  
President



GALLOWAY ENVIRONMENTAL, INC.  
3102 – 220th Place SE  
Sammamish, Washington 98075-9540  
(425) 688-8852

December 29, 2014

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## ***EXECUTIVE SUMMARY***

This report presents the results of Galloway Environmental, Inc.'s (GEI's) Site Cleanup Confirmation Investigation ("SCCI") at the Northwest Furniture & Bridgestone Firestone Retail Center property. The subject property is located at 5907 and 5909 6<sup>th</sup> Avenue in Tacoma, Washington 98406.

The property is approximately four miles west of Tacoma's central business district and 1½ miles east of The Narrows Passage of Puget Sound. The property is situated in the NW ¼ of Section 2, Township 20 North, Range 2 East. Surrounding properties consist primarily of commercial properties.

### *Report Purpose and Objectives*

This investigation was targeted to determine whether remedial actions completed at the Site have successfully removed or treated the impacted soils to comply with current Model Toxics Control Act (MTCA) Cleanup Levels (CULs).

Several environmental reports have been completed at the subject property. These reports have provided information related to environmental site investigations and remedial actions at the Site. These reports are summarized in Section 1.0.3 Previous Environmental Studies.

### *Work Scope Performed by GEI during this SCCI*

GEI performed environmental soil sampling and analysis at eight (8) shallow soil penetration test holes drilled at the property. The following summary is intended for introductory purposes and should be used in conjunction with the full text of the report.

### *Findings of the Investigation*

- Soil samples — Laboratory analysis of GEI's recent soil samples resulted in elevated concentrations of Chemicals of Concern (COCs) above the currently allowable Washington State Model Toxics Control Act Method B (MTCA) Cleanup Levels (CULs) for Unrestricted Land Use (ULU) in one of the eight soil penetrations sampled during this investigation.
- Water samples — No groundwater was encountered during this study.

### *Conclusions*

- Additional environmental investigation or remedial action is recommended to comply with current MTCA regulations in vicinity of the one soil penetration with elevated COC concentrations.

## **1.0 INTRODUCTION**

Galloway Environmental, Inc. (GEI) on behalf of Highland Sixth Associates LP, has prepared this Work Plan for a focused Environmental Site Assessment (ESA) at the Northwest Furniture & Bridgestone Firestone Retail Center property, 5907 and 5909 6<sup>th</sup> Avenue, Tacoma, Washington.

The property comprises a portion of the Highland Hills Shopping Center in Tacoma, Washington. The primary goal of this study was targeted to determine whether remedial actions completed at the Site have successfully removed or treated the impacted soils to comply with current Model Toxics Control Act (MTCA) Cleanup Levels (CULs).

### **1.0.1 Site Location and Property Description**

The subject property is located at 5907 and 5909 6<sup>th</sup> Avenue in Tacoma, Washington 98406. The property is approximately three miles west of Tacoma's central business district and 1½ miles east of The Narrows Passage of Puget Sound (*see Figure 1-1 Site Location Map*).

The property is situated in the NW ¼ of Section 2, Township 20 North, Range 2 East. Surrounding properties consist primarily of commercial properties.

### **1.0.2 Background and General Facility Information**

The single story, 5,000 square foot Northwest Furniture Outlet structure was constructed to house the Daisy Clothing Care business in 1969. The facility had washing machines, clothing dryers and seven dry cleaning units. Daisy Clothing Care was in operation at the site until 1985 and the cleaners ceased its operation at that time. Reportedly, the Northwest Furniture Outlet suite was vacant until circa 1993 when the Northwest Furniture Outlet occupied the structure. The structure was demolished in April 2008 and most of the footprint of the structure was capped with asphalt with a small area adjacent to the remaining BFRC structure planted with vegetation and small shrubs and trees (*See Figure 1-2 — Site Plan Map*).

A 6,820 square foot Bridgestone Firestone Retail Center (BRFC) auto service center was built adjoining the Northwest Furniture structure in 1969. There are six vehicle service bays situated in the north and western portions of the structure. Five of the service bays are equipped with hydraulic lifts and an aboveground alignment rack has replaced a hydraulic lift that had previously occupied the northern bay. There are six floor drains (one near each lift) that are connected by an underground line leading to an underground oil/water separator located adjacent to the northern wall of the facility.

Both businesses have been connected to City of Tacoma water and sewer services since 1969.

### **1.0.3 Previous Environmental Studies**

Several environmental studies have been completed previously at the subject shopping center property. These investigations have provided information related to Environmental Site Investigation and Remedial Action Reports at the Northwest Furniture Outlet Facility (previously operated as Daisy Clothing Care) and the adjacent BFRC facility (*See Appendix C — Previous Environmental Reports*).

These investigations confirmed that concentrations of halogenated volatile organic compounds (HVOCs), gasoline-range petroleum compounds (mineral spirits), and total xylenes exceeded the allowable Washington State Model Toxics Control Act (MTCA) Method B cleanup limits in soil at the site. GEI has integrated the results of these investigations into the scope of work for this investigation. These reports are summarized as follows.

Limited Level II ESA at the Northwest Furniture Outlet, 5909 Sixth Avenue, GEI, July 2004

GEI completed a Limited Level II Environmental Site Investigation at the Northwest Furniture Outlet property in July 2004. GEI's field screening and follow up laboratory analysis of soil samples collected from hand auger borings resulted in solvent compound concentrations above the currently allowable Washington State Model Toxics Control Act (MTCA) limits.

Phase II ESA at the Highland Hills Shopping Center, 5907 - 6201 Sixth Avenue, by Environmental Partners, Inc, March 2005

Environmental Partners, Inc. (EPI) completed a Phase II Environmental Site Assessment (ESA) of portions of the site to test for the presence of potential contaminants of concern outside the excavation area.

Laboratory analysis of EPI's soil samples confirmed that contaminant concentrations exceeded the currently allowable MTCA Method A concentrations, but were within the allowable Method B levels for "Direct Contact" cleanup levels in all of the borings except at one boring (Boring No. B-8).

EPI submitted one soil sample from B-8. The soil sample was collected from approximately 11.5 feet below grade. Laboratory analysis of the sample resulted in 33 ppm PCE – the MTCA Method B Direct Contact limit in soil (MTCA 2005) was 19.6 ppm for PCE). This (EPI) sample also exceeded MTCA's limits for gasoline-range petroleum concentrations – the laboratory noted the following; "Chromatogram indicates sample contains products which are likely mineral spirits, light oil and lube oil".

EPI's Draft Phase II ESA Executive Summary also states the following.

*"The Firestone shop contains a sub-floor oil/water separator in the proximity of a parts cleaning station, which likely involved the past use of chlorinated solvents. There is a potential that past practices may have introduced solvents or petroleum hydrocarbons into the shallow soil in the vicinity of the oil/water separator" (Draft Phase II ESA Executive Summary, Highland Hills Shopping Center, Environmental Partners, Inc., March 2005).*

Environmental Cleanup Status Report at the NW Furniture Outlet Property, by GEI, August 2005

GEI completed a Limited Level II Environmental Site Investigation at the Northwest Furniture Outlet property in July 2004. GEI's field screening and follow up laboratory analysis of soil samples collected from hand auger borings resulted in solvent compound concentrations above the currently allowable Washington State Model Toxics Control Act Method A (MTCA (2004)) limits.

Based on these MTCA exceedences, the owner asked GEI to remove the impacted soil until: 1) the residual contaminant concentrations were within the currently allowable MTCA limits; or 2) continued removals of the affected soil would (potentially) jeopardize the structural integrity of the building.

Excavated soils with contaminant concentrations exceeding Ecology's Dangerous Waste limits were loaded directly into 20 cubic yard containers for disposal at Waste Management's RCRA-permitted (hazardous waste) facility and excavated soils with contaminant concentrations below the Dangerous Waste limits were loaded directly into Waste Management's 20 cubic yard containers for rail delivery to Waste Management's non-hazardous waste facility as per WDOE's "Contained In" authorization letter (*Disposal of Soils with F002-Listed Dangerous Waste Constituents, Letter from K. Seiler - WDOE SWRO Section Manager to Galloway Environmental, March 11, 2005*)

GEI removed approximately 175 tons of solvent-impacted soils from below the concrete floor of the facility and collected soil samples from the sidewalls and bottom of the excavation to test for potential residual contaminant concentrations in the excavation. The excavation was backfilled with pea gravel and a four-inch thick concrete slab will be poured over the gravel. GEI also installed a 20-mil, chemical resistant PVC liner at about three feet below grade to restrict potential residual vapors from entering the facility.

GEI collected interim soil samples from the sidewalls and excavation bottom for field screening and laboratory analysis during the removals to quantify the contaminant concentrations remaining in the soils. Field screening and laboratory tests of soil samples (collected from the excavation) that resulted in concentrations exceeding the targeted cleanup levels (MTCA Method B – Direct Contact levels) were subsequently excavated and the excavation was re-sampled.

Following the removals of as much of the impacted soils as possible, GEI collected representative soil samples from the sidewalls and bottom of the excavation to test for residual contaminant concentrations remaining in the excavation. Contaminant concentrations in soils exposed at the limits of the final excavation resulted in concentrations dry cleaning compounds above the WDOE-acceptable MTCA Method A and below the Method B Cleanup Levels for "Direct Contact" of the soils (*Environmental Cleanup Status Report, Galloway Environmental, Inc., August 2005*).

*BFRC Retail Store Number 015539, 5907 Sixth Avenue, Seacor International, Inc. Nov. 2, 2005*

SECOR International, Inc. completed a Limited Subsurface Assessment of the BFRC facility in November 2005. SECOR's assessment included the advancement of six Strataprobe penetrations to depths ranging from 13 to 19.5 feet bgs. Laboratory analysis of soil samples collected from the borings confirmed the presence of gasoline-range compounds, total xylenes and volatile organic compounds at concentrations exceeding the allowable MTCA Method A Cleanup Levels. No groundwater was encountered in any of the penetrations (*Limited Subsurface Assessment Report for BF Retail & Commercial*

*Operations, LLC, BFRC Retail Store Number 015539, 5907 6<sup>th</sup> Avenue, Tacoma, Washington, by SECOR International, Inc., November 2, 2005).*

*ESA Services at the BFRC Services Facility, by GEI, August 16, 2006*

GEI contracted Cascade Drilling to drill one soil boring near the furniture store to a maximum depth of 90 feet below the ground surface to investigate whether groundwater was present in the boring. If groundwater was encountered in the boring, then we planned to collect a water sample from the boring for chemical analysis for the contaminants of concern for the site.

GEI collected soil samples from the boring on five-foot intervals. The samples were field-screened for obvious signs of contamination (discolored soil or obvious odors, etc.), which are sometimes characteristic of environmental impacts to soil. The samples also were field-tested using a photoionization detector (PID – Mini-Rae), to screen for volatile compounds in the samples.

Since the field screening of the soils samples did not identify any indications of contamination in the samples, GEI submitted three soil samples from the boring for laboratory analysis. These samples were collected from approximately 15 feet, 30 feet and 60 feet of depth. The sampling protocols and procedures followed appropriate state and federal guidance documents, primarily EPA SW-846 and Washington State guidance documents (including EPA Method 5035A). OnSite Environmental Inc. analyzed the samples for the contaminants of concern using NWTPH-Gx/BTEX and Halogenated Volatiles (EPA Method 8260B).

Groundwater was not encountered in the soil boring - The boring was advanced to 90 feet belowground and the auger flight was lifted approximately 6-inches (off the bottom) to see if water would collect at the bottom of the boring – after waiting approximately 15 minutes no water was present in the boring. The Contaminants of Concern (COCs) were not detected in any of the samples submitted to the laboratory.

*Summary Status Letter, NW Furniture Store/ BFRC, Letter correspondence to Scott Rose (WDOE VCP) from GEI, dated March 30, 2009*

Gary Galloway summarized the environmental services completed at the BFRC and NW Furniture Outlet as follows.

***Northwest Furniture Outlet Property***

Based on MTCA exceedences identified during GEI's Phase II Environmental Site Investigation at the Furniture Store, the owner asked GEI to remove the impacted soil until: 1) the residual contaminant concentrations were within the currently allowable MTCA limits; or 2) continued removals of the affected soil would (potentially) jeopardize the structural integrity of the nearby buildings.

In 2005, GEI removed approximately 175 tons of solvent-impacted soils from below the concrete floor of the facility. Following the removals of as much of the impacted soils as possible, GEI collected representative soil samples from the sidewalls and bottom of the excavation to test for residual contaminant concentrations remaining in the excavation.

Also, Environmental Partners, Inc. (EPI) completed a Phase II Environmental Site Assessment (ESA) of portions of the site (including the BFRC -Firestone Store) to test for the presence of potential contaminants of concern outside the excavation area.

The Furniture Store building was demolished in April 2008 and in May 2008; GEI contracted ESN Drilling Company to inject chemical oxidation compounds (Potassium Permanganate) into the ground (to approximately 15 feet belowground) in the former footprint of the furniture store as shown in the attached figure - clearance soil sample data is provided in the attached table. Most of the former footprint of the furniture store has been capped with asphalt – with approximately ten feet of landscaped vegetation adjacent to the Firestone Store.

### ***BFRC Property***

Based on MTCA exceedences identified during EPI's Focused Phase II Environmental Site Investigation at the Firestone Store, the owner asked GEI to remove an underground oil/water separator and the impacted soil until: 1) the residual contaminant concentrations were within the currently allowable MTCA limits; or 2) continued removals of the affected soil would (potentially) jeopardize the structural integrity of the nearby buildings.

GEI removed the separator and impacted soil to a depth of 15 feet – the excavation measured 15'x15'x15'. Clearance soil samples were collected from the limits of the excavation and the excavation was backfilled with pea gravel and reinforced concrete was poured at the surface (*See attached figure and table*).

In September 2008 and in March 2009, GEI gravity feed approximately 300 gallons of 3% KMnO<sub>4</sub> (Potassium Permanganate) into the backfilled gravel (former oil/water separator location) to further reduce contaminant concentrations in the soils. The owner has asked GEI to continue the chemical oxidation treatment in the pea gravel semi-annually at the site.

#### **1.0.4 Purpose and ESA Objectives**

This investigation was targeted to determine whether remedial actions at the Site have successfully treated the impacted soils and groundwater to comply with current Model Toxics Control Act (MTCA) Cleanup Levels (CULs).

Data reviewed or obtained during this ESA were compared to current Washington State Model Toxics Control Act (MTCA - WAC 73-340) and the US Environmental Protection Agency (EPA) cleanup regulations for exceedences of potential contaminants of concern (COCs).

#### **1.1 REGIONAL PHYSIOGRAPHIC CONDITIONS**

The site is situated in the lowlands of the Puget Sound basin in western Washington. The Puget Sound is a north-south trending trough between the Olympic Mountains to the west

and the Cascade Mountains to the east. Elevation in the lowlands ranges from sea level up to several hundred feet. North-south trending valleys dominate the topography and low, nearly flat-topped highlands cut by streams. The Puget Sound occupies a large part of the western portion of the basin; lakes and streams occur frequently throughout the remainder of the basin.

The subject site is at an elevation of about 340 feet above mean sea level and is situated near the top of a gently rolling elevated plain which was formed during the last period of continental glaciation that ended approximately 13,500 years ago.

### *Climate*

Western Washington is characterized as having a mild marine climate. While the average total annual precipitation is approximately 37 inches, most of the rain falls between October and April.

## **1.2 REGIONAL AND SITE GEOLOGY**

The uplands of the Puget Sound Basin are separated by large Pleistocene glacial troughs now occupied by tidal waters, large lakes, or have been alluviated by streams that inherited the troughs with the retreat of the most recent glaciation. Native soils in the area consist of glacial drift and non-glacial Pleistocene deposits.

Soils exposed in the sidewalls and bottom of the excavation completed during the removals of impacted soils for this project consisted mainly of artificial fill materials ranging from six to nine feet of depth. The fill materials were predominately silty sand with gravel, organics and silty fine sand.

Glacial till, a dense heterogeneous mixture of silt, sand, and gravel underlies the fill.

## **1.3 REGIONAL AND SITE HYDROGEOLOGY**

### **1.3.1 Groundwater Occurrence**

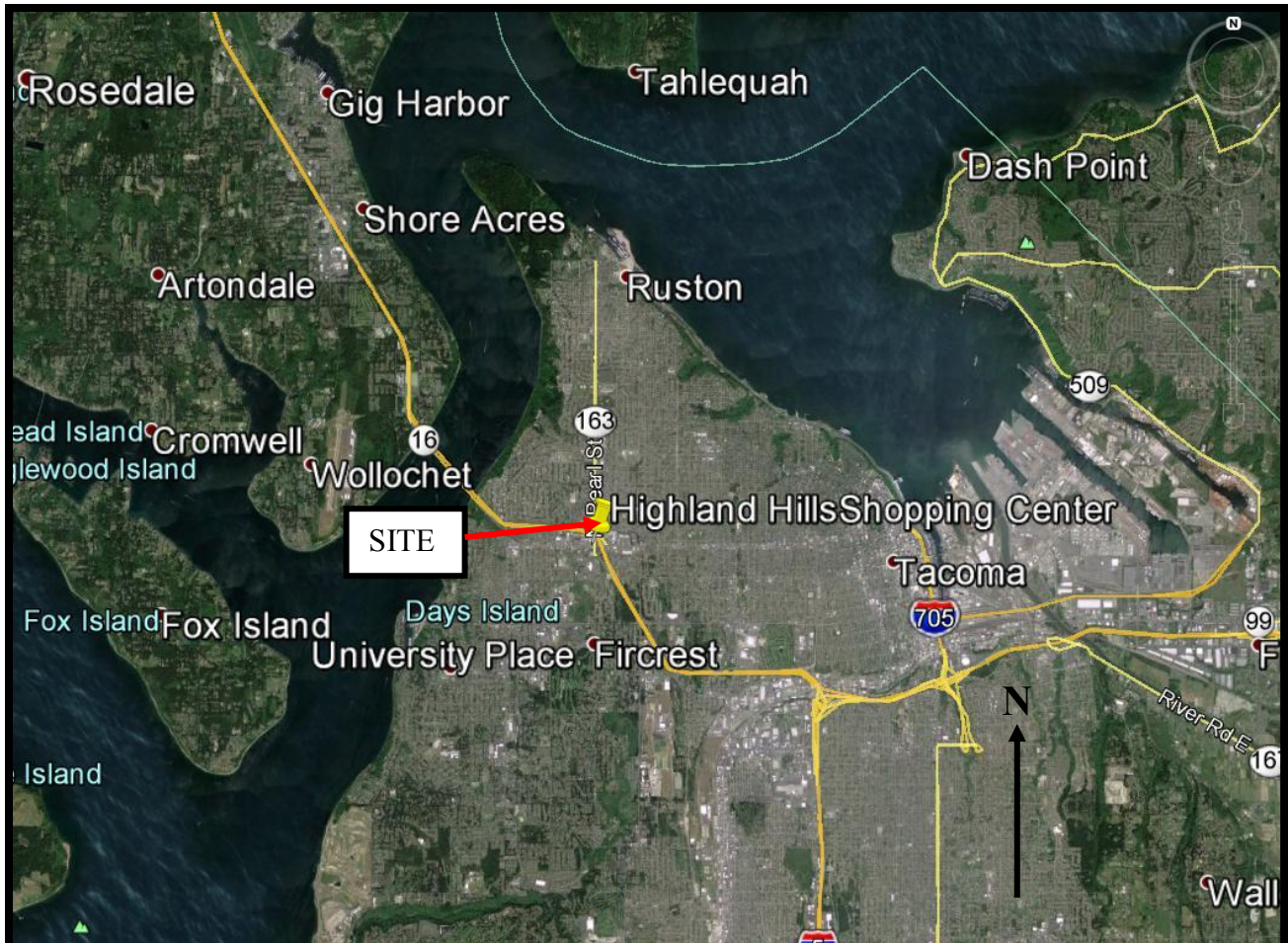
Based on the results of previous subsurface investigations, the depth of groundwater in vicinity of the subject property is greater than 90 feet below the ground surface (*See Section 1.0.3 – Previous Environmental Investigations*).

### **1.3.2 Current Groundwater Use**

The subject property is supplied water from a local municipal source. On site drainage is handled through on site ground retention and storm drains. Surface drainage appears to be adequate as there is no evidence of standing water, streams or creeks in the vicinity of the site.

## **1.4 SURFACE WATER**

On-site drainage is handled through on-site ground retention and storm drains. Surface drainage appears to be adequate and there is no evidence of standing water in vicinity of the site.

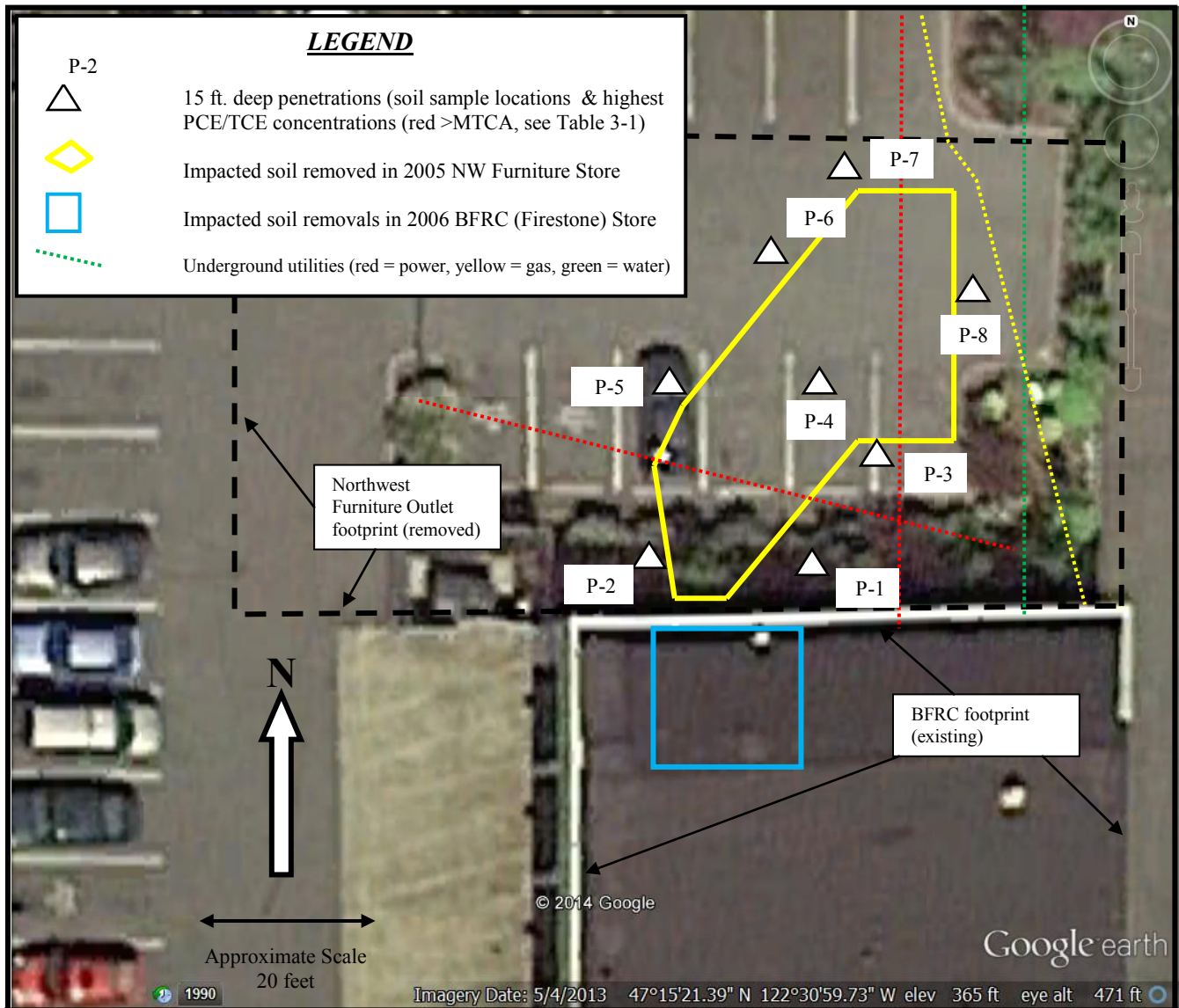


**FIGURE 1-1 – SITE LOCATION**

Highland Hills Property Focused SCCI

Source: Google Maps 2014, GEI Project #34045





**FIGURE 1-2 – SITE PLAN MAP**

Northwest Furniture & Bridgestone Firestone Retail Center Property Focused SCCI

Source: Google Maps 2014, GEI Project #34045

## **2.0 FIELD INVESTIGATION ACTIVITIES**

This investigation was targeted to determine whether remedial actions at the Site have successfully treated the impacted soils and groundwater to comply with current Model Toxics Control Act (MTCA) Cleanup Levels (CULs).

The Scope of Work consisted of collecting soil samples from six GeoProbe (direct push) penetrations in the vicinity of petroleum impacts that were identified in previous investigations and collecting groundwater samples from existing groundwater monitoring wells. The locations of the probe penetrations and groundwater wells are shown in Figure 3-1 – Sample Locations.

All of the samples collected during this investigation were placed in laboratory-supplied containers and properly labeled with the sample location, depth, and date and time of collection. The samples were stored in an iced cooler for delivery to the laboratory under standard chain-of-custody procedures (*See Appendix C – Sampling and Analytical Procedures*).

## **2.1 SOIL INVESTIGATION**

### **2.1.1 GeoProbe Penetrations**

Cascade Drilling Co. provided a truck mounted direct push rig (GeoProbe™) and crew to access subsurface soil samples for this study. The probe rig consisted of a hydraulically powered percussion/direct push machine that drives a tool string into the ground to access subsurface soils for sampling (*See Appendix A – GeoProbe Boring Logs*).

In order to reduce the potential for cross contamination of samples, the soil samples were collected in dedicated visqueen tube sample containers inside of a 1½ inch diameter, 5-foot long sampler attached to the end of the drive rods. The drive rods and other down hole equipment were thoroughly cleaned and decontaminated between probe locations as per EPA SW846 recommended decontamination guidelines.

### **2.1.2 Field Sampling and Screening of Soil Samples**

The sampling protocols and procedures followed appropriate state and federal guidance documents, primarily EPA SW-846 and Washington State guidance documents (including EPA Method 5035A). Soil samples were collected continuously from the ground surface to the maximum penetration depths using standard penetration techniques from the ground surface to depths ranging from 11 feet to 15 feet for field screening and laboratory analysis.

Soil samples and cuttings were visually examined and classified according to the Unified Soil Classification System (USCS). The samples were field-screened for obvious signs of contamination (discolored soil, sheen, obvious odors, etc.), which are sometimes characteristic of petroleum compounds in the soil. Discrete soil samples were also field-tested using a photoionization detector (PID - Photovac 2010 or equivalent) to screen for volatile compounds in the samples. The PID was fully calibrated using a 100-ppm span

gas and ambient air and the battery was fully charged prior to its use on-site. Detailed descriptions of observations made at each boring/probe have been provided in boring logs (*See Appendices A – GeoProbe Boring Logs and D – Sampling and Analytical Procedures*).

Based on field observations and the objectives of this investigation, the field sampler selected representative soil samples from each location for laboratory analysis. The soil samples were collected according to EPA and Washington State Department of Ecology (Ecology) sampling and preservation guidelines including EPA Method 5035A procedures.

The samples were placed in laboratory supplied glass jars and 40-ml glass VOA vials with Teflon-lined septum caps. The samples were properly labeled, stored in a chilled container (with ice), and hand-delivered to a Washington State-certified laboratory (OnSite Environmental Laboratory in Redmond, Washington) for analysis.

### **2.1.3 Chemical Analysis of Soil Samples**

Previous environmental studies at the Site have identified Halogenated Volatile Organic (HVOC) compounds as the primary Chemicals of Concern (COCs) beneath the footprint of the previous Northwest Furniture outlet. Therefore, representative soil samples were submitted to the OnSite Environmental Laboratory in Redmond, Washington for EPA Method 8260C (HVOC) analysis.

Samples collected by Seacor, Inc. in February of 2005 on the adjacent Bridgestone Firestone Retail Store (BFRC) identified gasoline-range petroleum and BTEX compound impacts to soil beneath the BFRC facility – OnSite Laboratory's Gasoline-range analysis of Seacor's samples states that the gasoline range compounds in the soil samples appear to be Mineral Spirits (*See Tables 3-1 and 3-2, Section 1.0.3 – Previous Environmental Studies, Appendix B – Laboratory Data*).

## **2.2 GROUNDWATER INVESTIGATION**

No groundwater was encountered during this investigation.

The objective of the sampling program was to collect continuous soil samples from the ground surface to the bottom of the penetrations for field screening and confirmatory laboratory chemical analysis by OnSite Environmental Laboratory's facility in Redmond, Washington.

The sampling protocols and procedures followed appropriate state and federal guidance documents, primarily EPA SW-846 and Washington State guidance documents (including EPA Sampling Method 5035A).

## **2.3 QUALITY ASSURANCE/QUALITY CONTROL**

Ecology- and EPA-recommended Quality Assurance/Quality Control Procedures (QA/QC) field sampling, decontamination of equipment, and shipping and handling procedures were followed throughout the field investigation. The analytical results indicate that the

sampling equipment was properly decontaminated and that no cross-contamination occurred between samples and laboratory results are within method-specified QA/QC limits.

#### **2.4 HEALTH AND SAFETY**

The field investigation activities at this site were conducted in accordance with GEI's Corporate Health and Safety Program. The health and safety program was successfully implemented and no adverse health and safety incidents were observed or reported.

### **3.0**      **CONTAMINATION ASSESSMENT**

#### **3.0.1**      ***Soil Sample Results***

Soil samples — Laboratory analysis of the soil samples resulted in concentrations of TCE and PCE compounds above the currently allowable Washington State Model Toxics Control Act Method B (MTCA) Cleanup Levels (CULs) for Unrestricted Land Use (ULU) in one of the eight soil penetrations sampled during this investigation (*See Table 3-1 — Sample Results Summary, below*).

### **3.1**      **CONCLUSIONS**

Additional environmental investigation and/or remedial action is recommended to comply with current MTCA regulations.

**Table 3-1 Soil Sample Results Summary**

Sample No. & depths	PID Readings	Laboratory Analysis – mg/kg (ppm)					
		TCE	PCE	(cis) 1,2 Dichloro-ethene	1,1,1,2-Tetrachloro-ethane	1,2-Dichlorobenzene	Vinyl Chloride
P-1@2.6'	>50	79	7900	5.4	0.44	0.073	<0.058
P1@8'	0.0	0.010	0.80	0.39	<0.001	<0.001	<0.0009
P1@8' dup**	0.0	<0.086	0.12	2.4	<0.086	<0.086	0.086
P1@11'	0.0	0.0063	0.061	0.037	<0.001	<0.0009	0.0009
P2@11'	0.0	<0.0009	0.0054	0.002	<0.0009	<0.0009	0.0009
P3@2.6'	0.0	0.037	26	0.0023	<0.0007	<0.0007	0.0007
P-3@7'	0.0	0.0027	0.015	13	<0.0065	<0.0065	0.0011
P4@11'	1.8	0.83	0.16	45	<0.091	<0.091	0.0012
P5@7.5'	0.0	0.0023	0.0067	0.14	<0.001	<0.001	0.0010
P6@8'	0.0	0.010	0.0025	0.053	<0.001	<0.001	0.0010
P7@8'	0.0	0.26	0.0093	1.1	<0.0011	<0.061	0.0011
P8-11'	1.2	0.84	0.24	3.5	<0.063	<0.063	0.0009
B-1@13'***	0.0	0.32	1.5	0.29	<0.10	<0.10	<0.10
B-2@11'***	0.8	0.90	13	0.33	<0.08	<0.08	<0.08
B-3@17'***	0.0	0.36	2.0	<0.077	<0.077	<0.077	<0.077
B4@19'***	2.8	3.6	29	0.16	<0.11	<0.11	<0.11
MTCA Limits Method B Residential (top) Method C Industrial (bottom)		<u>40 (12*)</u> 1750 (2850*)	<u>480 (476*)</u> 21000 (62500*)	<u>160</u> 7000	<u>2400</u> 105000	<u>160</u> 315000	<u>24 (0.67*)</u> 10500 (87.5*)

\* Method B & C values for carcinogenic compounds are listed in parenthesis

\*\* Duplicate (laboratory) analysis for this sample

\*\*\* Collected by GEI during Seacor's Site Investigation in February 2005

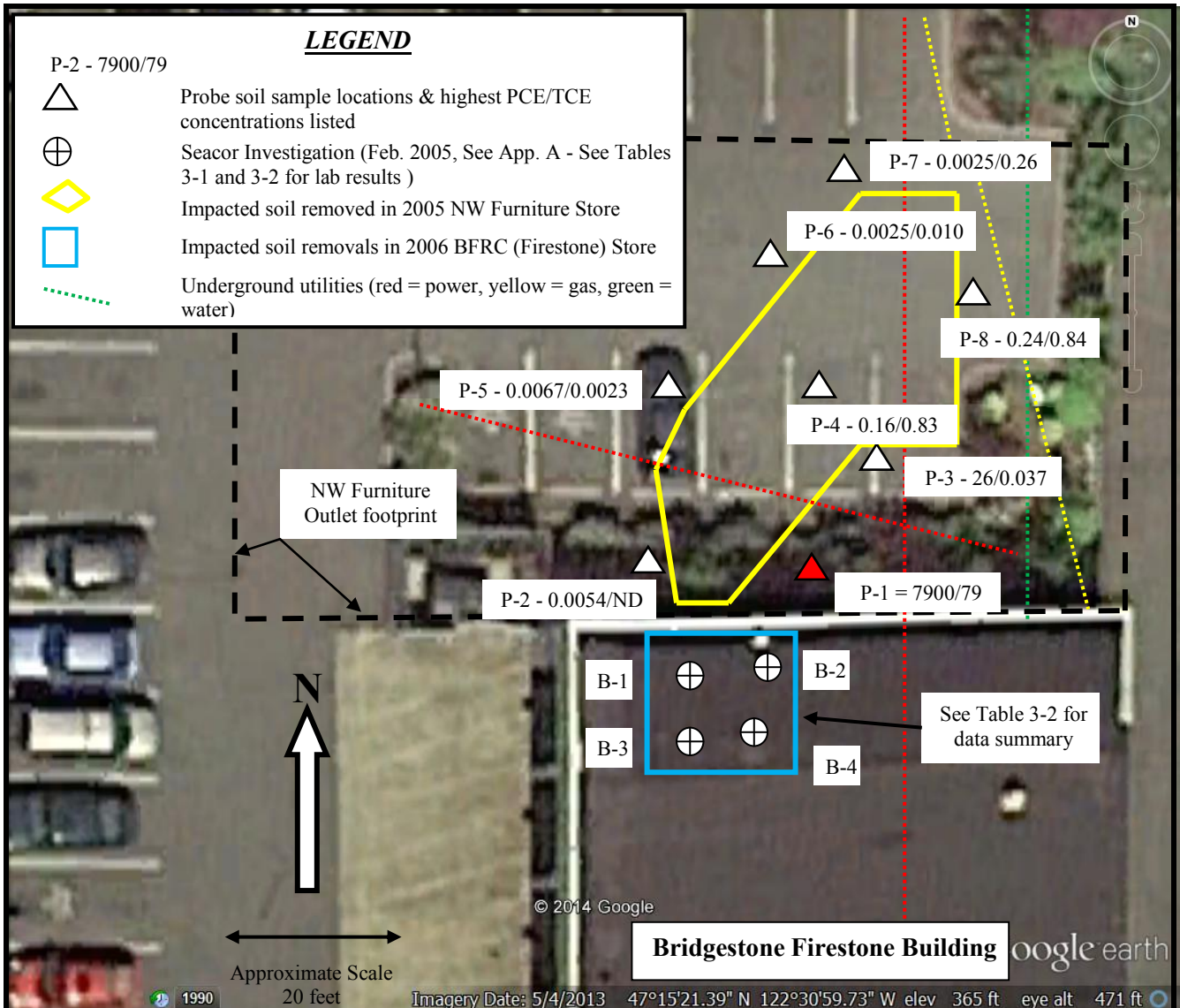
Sample locations shown in Figure 3-1 (Also see Appendices)

**Table 3-2 BFRC Soil Sample Results Summary (Petroleum Compounds only)\***

Sample No. & depths**	PID Readings	Laboratory Analysis – mg/kg (ppm)				
		Gx	Benzene	Toluene	Ethyl Benzene	Xylenes
B-1@13'	---	2400	<0.02	0.28	2.5	10.6
B-2@11'	---	7100	<0.02	0.26	7.0	27
B-3@17'	---	7900	0.059	1.3	5.5	31
B-4@19'	---	4600	0.052	0.47	3.9	15.4
MTCA Limits Method B Residential (top) Method C Industrial (bottom)		No CUL No CUL	320 14000	6400 280000	8000 350000	16000 700000

\* Collected by GEI during Seacor's Investigation in February 2005 (See Appendices), See Table 3-2 for EPA 8260 results

\*\*Sample locations shown in Figure 3-1



**FIGURE 3-1 — SOIL SAMPLE LOCATIONS**

Northwest Furniture & Bridgestone Firestone Retail Center Property Focused SCCI  
 Modified after Google May 2013, GEI Project #34045



#### 4.0 *SPECIAL TERMS AND CONDITIONS*

This report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based upon the facts currently available within the limits of the existing data, scope of work, budget and schedule and may undergo revision as additional data are obtained. To the extent that more definitive conclusions are desired by the client than are warranted by the currently available facts, it is specifically GEI's intent that the conclusions and recommendations stated in our report is intended as guidance and not necessarily a firm course of action except where explicitly stated as such. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

GEI makes no claims or guarantees with regard to this environmental review. These environmental services have been completed in accordance with the degree of skill and care required by customarily accepted good practices and procedures. This report should not be considered as a complete environmental assessment of the areas in question, but rather a preliminary report of existing conditions.

This report was prepared for the use of Highland Sixth Associates, LP ("Client") and the conclusions and recommendations presented in this report are based upon the agreed scope of work outlined in the report and the Contract for Professional Services between Client and Galloway Environmental, Inc. ("Consultant"). Use or misuse of this report, or the reliance upon the findings hereof by any parties other than the Client, is at their own risk. Neither Client nor Consultant make any representations or warranty to such other parties as to the accuracy or completeness of this report or to the suitability of its use by such other parties for any purpose whatever, known or unknown to Client or Consultant. Neither Client nor Consultant shall have any liability to, or indemnifies or holds harmless third parties for any losses incurred by the actual or purported use or misuse of this report.

## 5.0 REFERENCES

- BFRC Retail Store Number 015539, 5907 Sixth Avenue, Seacor International, Inc., Nov. 2, 2005
- Cleanup Levels and Risk Calculations under the MTCA (CLARC), WDOE, 2005 and 2014
- Dangerous Waste Regulations, Chapter 173-303 WAC, WDOE, Amended April 1991
- Environmental Cleanup Status Report at the NW Furniture Outlet Property, by GEI, August 2005
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods - SW846, EPA, Amended April 2007
- ESA Services at the BFRC, by GEI, August 16, 2006
- Limited Level II ESA at the Northwest Furniture Outlet, 5909 Sixth Avenue, by GEI, July 2004
- Model Toxics Control Act Cleanup Regulation, Chapter 173-303 WAC,, WDOE, February 2001 and 2005
- Phase II ESA at the Highland Hills Shopping Center, 5907 - 6201 Sixth Avenue, by Environmental Partners, Inc, March 2005
- Summary Status Letter, NW Furniture Store/ BFRC, by GEI, March 30. 2009

*APPENDIX A*

*GEOPROBE SOIL BORING LOGS*



Project No. 34045

**SOIL BORING LOG**

Sheet 1 of 8

Project Name BFRC SCCI Boring No. P-1 Date & Time Started 11/18/2014  
 Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan  
 Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'  
 Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA  
 Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'  
 Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA(ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Landscaped area - soil covered
	1@2.6						0 to 0.75' - Brown, medium grained sand (topsoil), damp, medium dense (md), no odors or stains
							0.75' to 2' - Brown, med. to course grained sand with pebbles, damp, medium dense (md), no odors, etc.
5			>50				2' to 2.7' - Dark brown to black, course grained sand with gravel, md, damp, strong solvent odors, <b>Sample # P1@2.6</b>
			>50				2.7' to 5.0' - Brown, medium grained sand, md, damp, moderate to slight solvent odors
	1@8'						5.0' to 6.5' - Light brown, medium grained sand, md, damp, slight odor
			22				6.5' to 10' Brown, medium grained sand, md, damp, slight odor <b>Sample # P1@8', PID = 22 @ 8'</b>
10			0.0				10' to 15' - Tan to gray, med grained sand, damp, dense, no odors or stains, <b>Sample # P1@11'</b>
	1@11'						
			0.0				No water
15							

Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 2 of 8

Project Name BFRC SCCI Boring No. P-2 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA (ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Landscaped area - 5" topsoil, 5" peat
							10" to 15" - Brown, fine grained sand (topsoil), moist, medium dense (md), no odors or stains
			0.0				15" to 7.5' - Fill Pea gravel (clean <3/4"), remedial excavation backfill, damp, loose, no odors, etc.
5							
							7.5' to 9' - Tan, course grained sand, damp, md, no odors, etc.
			0.0				9' to 10' - Dark brown, course grained sand, damp, md, no odors, e
10							10' to 10.5' - Brown, med. to course grained sand, damp,
	2@11'		0.0				md, no odors, etc.
			0.0				10.5' to 11.5' - Tan, med. to course grained sand, damp, no odors
							11.5' to 14' - Brown, med. to course grained sand, damp, no odors
							14' to 15' - Dark brown, fine grained sand, MD, damp
15							
20							

Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 3 of 8

Project Name BFRC SCCI Boring No. P-3 Date & Time Started 11/18/2014  
 Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan  
 Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'  
 Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA  
 Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'  
 Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA (ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
			0.0				0" to 4" - Asphalt
							4" to 2.5' - Brown, med. gr. sand, damp, med. dense, no odors or stains
			6.0				
							2.5' to 2.6' - Dark brown to black, med. gr. sand, damp, med. dense, slight solvent odor
5			0.0				2.6' to 5' - Brown to black, med. gr. sand, damp, med. dense, no odors, etc.
	3@7'		0.0				5' to 12' - Dark & light brown (interbedded), med. grained sand, damp, md, no odors, etc., Sample P.3@7'
			0.0				
10			0.0				
			0.0				
			0.0				12' to 15' - Light gray to tan, course grained sand, damp, no odors
15							
20							

Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 4 of 8

Project Name BFRC SCCI Boring No. P-4 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 11'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 11'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA (ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
			0.0				0" to 4" - Asphalt
							4" to 2' - Brown, med. gr. sand, damp, med. dense, no odors or stains
			0.0				2' to 5' - Same with broken pieces of concrete dense, slight solvent odor
5			0.0				5' to 9' - Pea gravel (remedial excavation backfill), damp, no odors damp, md, no odors, etc., Sample P4@7'
			0.0				
			0.0				9' to 10' - Dark & light brown, med. grained sand, moist, med. dense
10	4@11'		0.0				10' to 11' - Dark brown to black, med. grained sand with roots (native), damp, no odors, Sample P4@11'
15							
20							

Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 5 of 8

Project Name BFRC SCCI Boring No. P-5 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA (ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
			0.0				0" to 4" - Asphalt
							4" to 1' - Tan to gray, course gr. sand, damp, med. dense, no odors
			0.0				1' to 2.5' - reddish brown, medium gr. sand with pebbles (15%), damp, med. dense, no odors
5			0.0				2.5' to 7.5' - Greenish gray, med. grained sand, damp, med. dense, no odors, etc.
	5@7.5'		0.0				7.5' to 10.5' - Dark brown to black, med. gr. sand with roots & abundant organics (native), damp, md, no odors, etc.
			0.0				Sample P5@7.5'
10							10.5' to 15' - Tan, course. grained sand, damp, med. dense
			0.0				
15			0.0				
20							



Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 6 of 8

Project Name BFRC SCCI Boring No. P-6 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA(ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
			0.0				0" to 4" - Asphalt
							4" to 2.5' - Brown, med. to course gr. sand with pebbles & gravel,
			0.0				damp, med. dense, no odors
5							2.5' to 6.5' - Greenish tan, med. grained sand, damp, med. dense,
			0.0				no odors, etc.
							6.5' to 7.5' - Brown to black, med. gr. sand, damp, md, no odors
	<b>P6@8</b>		0.0				7.5' to 12' - Brown to black, course gr. sand with wood chips &
			0.0				roots, damp, md, no odors, Sample <b>P6@8'</b>
10							
			0.0				
							12' to 14' - Reddish brown, med. to course. grained sand, damp,
							med. dense, no odors, etc.
							14' to 15' - Gray, course. grained sand, damp, med. dense, no
15			0.0				odors, etc.
20							



Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 7 of 8

Project Name BFRC SCCI Boring No. P-7 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA (ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
							0" to 4" - Asphalt
							4" to 5' - No sample recovery (cobble in shoe)
5			0.0				5' to 7' - Tan, med. grained sand, damp to moist, med. dense, no odors, etc.
			0.0				7' to 8' - Gray, med. gr. sand, damp, med. dense, no odors
	<b>P7@8</b>		0.0				8' to 13' - dark brown, course gr. sand with wood chips & roots, damp, md, no odors, Sample <b>P7@8'</b>
10			0.0				
							13' to 14' - Reddish brown, med. to course. grained sand, damp, med. dense, no odors, etc.
15			0.0				14' to 15' - Gray, course. grained sand, damp, med. dense, no odors, etc.
20							

Signature *Gary Galloway*

Date November 18, 2014



Project No. 34045

**SOIL BORING LOG**

Sheet 8 of 8

Project Name BFRC SCCI Boring No. P-8 Date & Time Started 11/18/2014

Project Location Highland Hills Shopping Center Boring Location See Figure 1-2 Site Plan

Drilling Contractor Cascade Drilling Co. Drilling Method GeoProbe Total Depth 15'

Client Highland Hills Assoc. LP Sample Retrieval Method Liner Diameter, Wt., Drop NA

Site Manager Gary Galloway Logged By Gary Galloway Max Depth 15'

Closure Method Bentonite Water Depth No water Date & Time Completed 11/18/2014

Depth (feet)	Sample No.	Blows per 6"	PID/OVA(ppm)	Sheen	Odor	Discolored	DESCRIPTION
							Parking area
							0" to 4" - Asphalt
			0.0				4" to 1' - Gray, course grained sand with pebbles, damp, med. dense, no odors
5			0.0				1' to 2' - Reddish brown, med. grained sand, damp, med. dense, no odors, etc.
			0.0				2' to 2.1' - Black organic rich with roots, (native)
			0.0				2.1' to 6' - Reddish brown, med. gr. sand, damp, med. dense, no odors, etc.
			0.0				6' to 7' - Gray, course gr. sand, damp, med. dense, no odors
10							7' to 9.5' - Dark brown, course gr. sand with gravel, damp, med. dense, no odors
	<b>P8@11</b>		0.0				9.5' to 12.5' - Dark brown to black, med. grained sand with lots of organics, damp, med. dense, no odors, etc. <b>P8@11'</b>
							12.5' to 14.5' - Light brown, course. grained sand, damp, med. dense, no odors
15			0.0				14.5' to 15' - Light brown, course. grained sand with pebbles, damp, med. dense, no odors, etc.
20							

Signature *Gary Galloway*

Date November 18, 2014

*APPENDIX B*

*LABORATORY ANALYTICAL RESULTS*



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 2, 2014

Gary Galloway  
Galloway Environmental, Inc.  
3102 220<sup>th</sup> Place SE  
Sammamish, WA 98075

Re: Analytical Data for Project Highland Hills  
Laboratory Reference No. 1411-215

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on November 19, 2014.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: December 2, 2014  
Samples Submitted: November 19, 2014  
Laboratory Reference: 1411-215  
Project: Highland Hills

### Case Narrative

Samples were collected on November 19, 2014 and received by the laboratory on November 19, 2014. 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.

One Method 5035A VOA vial containing a stir bar and two vials without stir bars were provided for all samples except sample P3 @ 2.6' which had one of each type of vial. Method 5035A states that for low-level VOC analysis the purge-and-trap system employed must be capable of agitating the sealed sample during the purging process. The purge-and-trap system that OnSite Environmental utilizes for the analysis of low-level VOCs has a stir motor that spins a magnetic stir bar within the sample thereby agitating the sample and providing more efficient purging.

Samples 2 through 11 were initially analyzed by way of the low-level method (VOAs with stir bars). Due to either carryover from previous samples or in some cases dirt between the VOA cap and septum which caused leaks in the sealed VOA environment and therefore rendered the data unusable, samples P1 @ 8', P1 @ 11', P2 @ 11', P5 @ 7.5', and P6 @ 8' had to be reanalyzed. Because there was not a second VOA vial containing a stir bar to analyze, the samples were reanalyzed via low-level analysis using VOA vials without stir bars and reported.

Sample P1 @ 8' was analyzed three times with varying concentrations of target analytes, indicating non-homogeneity. The first set of data contained carryover and was not reported, but the other two sets of data are being reported for client's information.

A 4-ounce jar was not provided for the dry weight analysis of sample P3 @ 2.6'. Due to the high concentration of Tetrachloroethene present in the low-level analysis, the sample had to be diluted and analyzed via the high-level method, thereby using both provided VOA vials and leaving no sample with which to perform the dry weight. The sample is therefore reported on a wet weight basis.

Some MTCA Method A cleanup levels are non-achievable for sample P4 @ 11' due to sample matrix effects.

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: December 2, 2014  
 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P1 @ 2.6'</b>					
Laboratory ID:	11-215-01					
Dichlorodifluoromethane	ND	0.082	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.29	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.29	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.29	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.29	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	5.4	0.058	EPA 8260C	11-24-14	11-24-14	
Bromochloromethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	79	1.2	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.29	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.058	EPA 8260C	11-24-14	11-24-14	

Date of Report: December 2, 2014  
 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P1 @ 2.6'</b>					
Laboratory ID:	11-215-01					
1,1,2-Trichloroethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Tetrachloroethene	7900	120	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Dibromochloromethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromoethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Chlorobenzene	0.13	0.058	EPA 8260C	11-24-14	11-24-14	
1,1,1,2-Tetrachloroethane	0.44	0.058	EPA 8260C	11-24-14	11-24-14	
Bromoform	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Bromobenzene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,1,2,2-Tetrachloroethane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichloropropane	ND	0.058	EPA 8260C	11-24-14	11-24-14	
2-Chlorotoluene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
4-Chlorotoluene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,3-Dichlorobenzene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,4-Dichlorobenzene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
1,2-Dichlorobenzene	0.073	0.058	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromo-3-chloropropane	ND	0.29	EPA 8260C	11-24-14	11-24-14	
1,2,4-Trichlorobenzene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
Hexachlorobutadiene	ND	0.29	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichlorobenzene	ND	0.058	EPA 8260C	11-24-14	11-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>117</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>106</i>	<i>79-126</i>				

Date of Report: December 2, 2014  
 Samples Submitted: November 19, 2014  
 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P1 @ 8'</b>					
Laboratory ID:	11-215-02					
Dichlorodifluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	0.034	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	0.39	0.00089	EPA 8260C	11-25-14	11-25-14	E
Bromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	0.010	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	

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**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P1 @ 8'</b>					
Laboratory ID:	11-215-02					
1,1,2-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.80	0.00089	EPA 8260C	11-25-14	11-25-14	E
1,3-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>79-126</i>				

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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P1 @ 8'</b>					
Laboratory ID:	11-215-02					
Dichlorodifluoromethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.43	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.43	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.43	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.43	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	0.16	0.086	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	2.4	0.086	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.43	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.086	EPA 8260C	11-25-14	11-25-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P1 @ 8'</b>					
Laboratory ID:	11-215-02					
1,1,2-Trichloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.12	0.086	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.086	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.43	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.43	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.086	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>93</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>109</i>	<i>79-126</i>				

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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P1 @ 11'</b>					
<b>Laboratory ID:</b>	<b>11-215-03</b>					
Dichlorodifluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	0.0010	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	0.037	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	0.0063	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P1 @ 11'</b>					
Laboratory ID:	11-215-03					
1,1,2-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.061	0.00089	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,2,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.0045	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>115</i>	<i>79-126</i>				

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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P2 @ 11'</b>					
<b>Laboratory ID:</b>	<b>11-215-04</b>					
Dichlorodifluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	0.0020	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P2 @ 11'</b>					
Laboratory ID:	11-215-04					
1,1,2-Trichloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.0054	0.00089	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,1,2,2-Tetrachloroethane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.00089	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>79-126</i>				

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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P3 @ 2.6'</b>					
Laboratory ID:	11-215-05					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	0.0023	0.00074	EPA 8260C	11-24-14	11-24-14	
Bromochloromethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	0.037	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloropropane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P3 @ 2.6'</b>					
Laboratory ID:	11-215-05					
1,1,2-Trichloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Tetrachloroethene	26	0.97	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Dibromochloromethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromoethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Chlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1,1,2-Tetrachloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Bromoform	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Bromobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,1,2,2-Tetrachloroethane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichloropropane	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
2-Chlorotoluene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
4-Chlorotoluene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,3-Dichlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,4-Dichlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2-Dichlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromo-3-chloropropane	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
1,2,4-Trichlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
Hexachlorobutadiene	ND	0.0037	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichlorobenzene	ND	0.00074	EPA 8260C	11-24-14	11-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>124</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>117</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>109</i>	<i>79-126</i>				

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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P3 @ 7'</b>					
Laboratory ID:	11-215-06					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	0.019	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	0.015	0.0011	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	1.2	0.065	EPA 8260C	11-25-14	11-26-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	13	1.3	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	0.0027	0.0011	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P3 @ 7'</b>					
Laboratory ID:	11-215-06					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Tetrachloroethene	0.015	0.0011	EPA 8260C	11-24-14	11-24-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chlorobenzene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromoform	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,1,2,2-Tetrachloroethane	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,2,3-Trichloropropane	ND	0.065	EPA 8260C	11-25-14	11-26-14	
2-Chlorotoluene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
4-Chlorotoluene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,3-Dichlorobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,4-Dichlorobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,2-Dichlorobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
1,2-Dibromo-3-chloropropane	ND	0.33	EPA 8260C	11-25-14	11-26-14	
1,2,4-Trichlorobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
Hexachlorobutadiene	ND	0.33	EPA 8260C	11-25-14	11-26-14	
1,2,3-Trichlorobenzene	ND	0.065	EPA 8260C	11-25-14	11-26-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>123</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>88</i>	<i>79-126</i>				

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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P4 @ 11'</b>					
<b>Laboratory ID:</b>	<b>11-215-07</b>					
Dichlorodifluoromethane	ND	0.0017	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.0062	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	0.011	0.0012	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.0062	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	0.012	0.0012	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.0062	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.0062	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	4.7	0.091	EPA 8260C	11-25-14	11-26-14	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	45	1.8	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	0.83	0.091	EPA 8260C	11-25-14	11-26-14	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.091	EPA 8260C	11-25-14	11-26-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P4 @ 11'</b>					
Laboratory ID:	11-215-07					
1,1,2-Trichloroethane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Tetrachloroethene	0.16	0.091	EPA 8260C	11-25-14	11-26-14	
1,3-Dichloropropane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Dibromochloromethane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,2-Dibromoethane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Chlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,1,1,2-Tetrachloroethane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Bromoform	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Bromobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,1,1,2-Tetrachloroethane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,2,3-Trichloropropane	ND	0.091	EPA 8260C	11-25-14	11-26-14	
2-Chlorotoluene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
4-Chlorotoluene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,3-Dichlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,4-Dichlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,2-Dichlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
1,2-Dibromo-3-chloropropane	ND	0.45	EPA 8260C	11-25-14	11-26-14	
1,2,4-Trichlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
Hexachlorobutadiene	ND	0.45	EPA 8260C	11-25-14	11-26-14	
1,2,3-Trichlorobenzene	ND	0.091	EPA 8260C	11-25-14	11-26-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>107</i>	<i>79-126</i>				

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P5 @ 7.5'</b>					
Laboratory ID:	11-215-08					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	0.0091	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	0.14	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	0.0023	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P5 @ 7.5'</b>					
Laboratory ID:	11-215-08					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.0067	0.0010	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.0051	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	76-131				
<i>Toluene-d8</i>	96	82-129				
<i>4-Bromofluorobenzene</i>	100	79-126				

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Matrix: Soil  
 Units: mg/kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>P6 @ 8'</b>					
Laboratory ID:	11-215-09					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloromethane	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromomethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloroethane	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Iodomethane	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
Methylene Chloride	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
(trans) 1,2-Dichloroethene	0.021	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
(cis) 1,2-Dichloroethene	0.053	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromochloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloroform	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Trichloroethene	0.010	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Dibromomethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2-Chloroethyl Vinyl Ether	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	

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**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P6 @ 8'</b>					
Laboratory ID:	11-215-09					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Tetrachloroethene	0.0025	0.0010	EPA 8260C	11-26-14	11-26-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromoform	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Hexachlorobutadiene	ND	0.0052	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>79-126</i>				

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**HALOGENATED VOLATILES EPA 8260C**  
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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P7 @ 8'</b>					
Laboratory ID:	11-215-10					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	0.0013	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	0.0012	0.0011	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	0.49	0.061	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	1.1	0.061	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	0.26	0.061	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P7 @ 8'</b>					
Laboratory ID:	11-215-10					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Tetrachloroethene	0.0093	0.0011	EPA 8260C	11-24-14	11-24-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Chlorobenzene	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromoform	ND	0.0011	EPA 8260C	11-24-14	11-24-14	
Bromobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,1,2,2-Tetrachloroethane	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.061	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.31	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.31	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.061	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>79-126</i>				

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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P8 @ 11'</b>					
Laboratory ID:	11-215-11					
Dichlorodifluoromethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	0.0096	0.00088	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	0.0015	0.00088	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	0.018	0.00088	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	3.5	0.063	EPA 8260C	11-26-14	11-26-14	
Bromochloromethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	0.84	0.063	EPA 8260C	11-26-14	11-26-14	
1,2-Dichloropropane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0044	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	11-25-14	11-25-14	

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**HALOGENATED VOLATILES EPA 8260C  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>P8 @ 11'</b>					
<b>Laboratory ID:</b>	11-215-11					
1,1,2-Trichloroethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	0.24	0.063	EPA 8260C	11-26-14	11-26-14	
1,3-Dichloropropane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.00088	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,1,2,2-Tetrachloroethane	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichloropropane	ND	0.063	EPA 8260C	11-26-14	11-26-14	
2-Chlorotoluene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
4-Chlorotoluene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,3-Dichlorobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,4-Dichlorobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,2-Dichlorobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
1,2-Dibromo-3-chloropropane	ND	0.31	EPA 8260C	11-26-14	11-26-14	
1,2,4-Trichlorobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
Hexachlorobutadiene	ND	0.31	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichlorobenzene	ND	0.063	EPA 8260C	11-26-14	11-26-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>85</i>	<i>79-126</i>				

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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1124S1					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	11-24-14	11-24-14	
Chloromethane	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Bromomethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Chloroethane	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Iodomethane	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
Methylene Chloride	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Bromochloromethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Chloroform	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Trichloroethene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Dibromomethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	

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**HALOGENATED VOLATILES EPA 8260C  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB1124S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Chlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Bromoform	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Bromobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	11-24-14	11-24-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-24-14	11-24-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>120</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>119</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>113</i>	<i>79-126</i>				

Date of Report: December 2, 2014  
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 Laboratory Reference: 1411-215  
 Project: Highland Hills

**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1125S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloromethane	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromomethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloroethane	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Iodomethane	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
Methylene Chloride	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromochloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chloroform	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Trichloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Dibromomethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	

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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB1125S2				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Chlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromoform	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Bromobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	11-25-14	11-25-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-25-14	11-25-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>128</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>119</i>	<i>79-126</i>				

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**HALOGENATED VOLATILES 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:	MB1126S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloromethane	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromomethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloroethane	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Iodomethane	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
Methylene Chloride	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromochloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chloroform	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Trichloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Dibromomethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	

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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB1126S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Chlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromoform	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Bromobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	11-26-14	11-26-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-26-14	11-26-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>116</i>	<i>79-126</i>				

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**HALOGENATED VOLATILES EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1124S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0539</b>	<b>0.0548</b>	0.0500	0.0500	108	110	66-129	2	15	
Benzene	<b>0.0590</b>	<b>0.0574</b>	0.0500	0.0500	118	115	71-123	3	15	
Trichloroethene	<b>0.0529</b>	<b>0.0533</b>	0.0500	0.0500	106	107	75-115	1	15	
Toluene	<b>0.0533</b>	<b>0.0536</b>	0.0500	0.0500	107	107	75-120	1	15	
Chlorobenzene	<b>0.0455</b>	<b>0.0453</b>	0.0500	0.0500	91	91	75-121	0	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>114</i>	<i>115</i>	<i>76-131</i>			
<i>Toluene-d8</i>					<i>109</i>	<i>113</i>	<i>82-129</i>			
<i>4-Bromofluorobenzene</i>					<i>103</i>	<i>106</i>	<i>79-126</i>			

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**HALOGENATED VOLATILES EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1125S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0445</b>	<b>0.0448</b>	0.0500	0.0500	89	90	66-129	1	15	
Benzene	<b>0.0492</b>	<b>0.0486</b>	0.0500	0.0500	98	97	71-123	1	15	
Trichloroethene	<b>0.0475</b>	<b>0.0478</b>	0.0500	0.0500	95	96	75-115	1	15	
Toluene	<b>0.0482</b>	<b>0.0480</b>	0.0500	0.0500	96	96	75-120	0	15	
Chlorobenzene	<b>0.0459</b>	<b>0.0455</b>	0.0500	0.0500	92	91	75-121	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					98	95	76-131			
<i>Toluene-d8</i>					99	97	82-129			
<i>4-Bromofluorobenzene</i>					107	104	79-126			

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**HALOGENATED VOLATILES EPA 8260C  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1126S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	<b>0.0472</b>	<b>0.0478</b>	0.0500	0.0500	94	96	66-129	1	15	
Benzene	<b>0.0500</b>	<b>0.0504</b>	0.0500	0.0500	100	101	71-123	1	15	
Trichloroethene	<b>0.0478</b>	<b>0.0483</b>	0.0500	0.0500	96	97	75-115	1	15	
Toluene	<b>0.0488</b>	<b>0.0488</b>	0.0500	0.0500	98	98	75-120	0	15	
Chlorobenzene	<b>0.0463</b>	<b>0.0467</b>	0.0500	0.0500	93	93	75-121	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>94</i>	<i>99</i>	<i>76-131</i>			
<i>Toluene-d8</i>					<i>95</i>	<i>102</i>	<i>82-129</i>			
<i>4-Bromofluorobenzene</i>					<i>103</i>	<i>108</i>	<i>79-126</i>			

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### % MOISTURE

Date Analyzed: 11-24-14

Client ID	Lab ID	% Moisture
P1 @ 2.6'	11-215-01	5
P1 @ 8'	11-215-02	9
P1 @ 11'	11-215-03	9
P2 @ 11'	11-215-04	7
P3 @ 7'	11-215-06	14
P4 @ 11'	11-215-07	29
P5 @ 7.5'	11-215-08	17
P6 @ 8'	11-215-09	15
P7 @ 8'	11-215-10	19
P8 @ 11'	11-215-11	18



### 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-naphthalene) 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



**APPENDIX C**

**PREVIOUS ENVIRONMENTAL REPORTS**

*(These reports have previously been submitted, they are available upon request)*

*APPENDIX D*

*SAMPLING AND ANALYTICAL PROCEDURES*

## ***SAMPLING RATIONALE AND EQUIPMENT DECONTAMINATION***

The sampling protocols and procedures followed appropriate state and federal guidance documents, primarily EPA SW-846 and Washington State guidance documents (including EPA Method 5035A).

### *Sampling Protocols and Procedures*

GEI utilized the Laboratory Preservation option for soil sampling for volatiles under EPA Method 5035A. At each sample location, GEI collected approximately 5 grams of soil in one pre-weighed 4-mil VOA vial and one 4-ounce glass jar. Soil samples were collected and preserved in a 4-mil VOA vial using the laboratory-supplied Teflon coring device per EPA Method 5035A. Soil samples in the 4-ounce glass jar were collected with a decontaminated stainless steel spoon or directly into the glass container without the use of the spoon. Three VOA vials and one 4-ounce glass jar samples were hand-delivered to the laboratory on their collection date.

### *Handling, storage, and shipment*

All of the samples were properly labeled, stored in a chilled container (preserved with ice to approximately 4 degrees Centigrade), and hand-delivered to a local Washington State-Certified laboratory on their collection date, under proper chain-of-custody protocols. A field logbook documented all of the field activities, problems encountered, and other relevant information regarding the sampling.

### *Equipment Decontamination*

Decontamination procedures and activities were recorded in the site logbook. All equipment was decontaminated before starting work and between each sampling site. The soil samples were recovered at each sample location using procedures designed to minimize the risk of cross contamination of the samples. Laboratory-supplied glass jars, VOA vials, and Teflon tubes were used at each sample location – no sampling equipment will be used at more than one sample location.

Sampling equipment was decontaminated between sampling locations at a specific site. Other non-sampling equipment was decontaminated with high-pressure steam and scrubbed with laboratory detergent, if necessary. The following procedure will be used for cleaning all sampling equipment:

- Remove gross contamination by brushing.
- Wash and scrub with laboratory grade detergent, if necessary.
- Rinse with tap water.
- Rinse with de-ionized water.

### *Field Custody Procedures*

Sample-tracking records include the sample labels and chain-of-custody seals to place over a container opening, and the Chain-of- Custody/Analysis Report forms. The samples taken were traceable from the time the samples were collected until they or their derived data are used in the final report. To maintain and document sample possession, the following field custody procedures shall be implemented.

The Site Manager was personally responsible for the care and custody of the samples collected until they were properly transferred or dispatched to the laboratory. A Chain of Custody/Analysis Report form accompanied samples. The custody record was completed using waterproof ink.

Drawing a line through and initialing and dating the change, then entering the correct information, made any corrections. Erasures or whiteouts were not permitted. When transferring possession of samples, the individuals relinquishing and receiving them signed, dated, and noted the time on the form. This form documents sample custody transfer from the sampler to the laboratory.

#### *Sample Identification*

All samples were individually labeled and noted in the field logbook. Information on the labels was filled out completely. The sample numbers were also used to complete the Chain-of-Custody forms. All sample coolers were affixed with a signed Custody Seal.

#### *Field Reports and Forms*

The Site Manager maintained a field logbook documenting all activity and samples during all phases of the investigation. The field logbook included the following information for each sample:

- Date
- Time
- Location
- Sample identification number
- How sample was collected
- Comments

The Site Manager kept the site logbook. This book summarized the daily activities, visitors, and problems encountered. Any entries made in the logbook were signed and dated by the individual. A telephone log was kept to document any project oriented phone conversations. The person holding the conversation made these entries. All forms (shipping, etc.) were kept, as necessary, in a binder with the field personnel. The logbooks were initiated at the start of the first on-site activity, and entries were made for everyday that site activities occur. The logbooks were weatherproof and bound with numbered pages.

#### **LABORATORY ANALYSIS**

Representative soil samples were submitted to a Washington State-Certified Laboratory (OnSite Environmental Laboratory, Redmond, WA) for the following chemical analyses.

- Halogenated Volatile Organic Compounds (EPA Method 8260C)

*APPENDIX D*

*SAMPLING AND ANALYTICAL PROCEDURES*

## ***SAMPLING RATIONALE AND EQUIPMENT DECONTAMINATION***

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### *Sampling Protocols and Procedures*

GEI utilized the Laboratory Preservation option for soil sampling for volatiles under EPA Method 5035A. At each sample location, GEI collected approximately 5 grams of soil in one pre-weighed 4-mil VOA vial and one 4-ounce glass jar. Soil samples were collected and preserved in a 4-mil VOA vial using the laboratory-supplied Teflon coring device per EPA Method 5035A. Soil samples in the 4-ounce glass jar were collected with a decontaminated stainless steel spoon or directly into the glass container without the use of the spoon. Three VOA vials and one 4-ounce glass jar samples were hand-delivered to the laboratory on their collection date.

### *Handling, storage, and shipment*

All of the samples were properly labeled, stored in a chilled container (preserved with ice to approximately 4 degrees Centigrade), and hand-delivered to a local Washington State-Certified laboratory on their collection date, under proper chain-of-custody protocols. A field logbook documented all of the field activities, problems encountered, and other relevant information regarding the sampling.

### *Equipment Decontamination*

Decontamination procedures and activities were recorded in the site logbook. All equipment was decontaminated before starting work and between each sampling site. The soil samples were recovered at each sample location using procedures designed to minimize the risk of cross contamination of the samples. Laboratory-supplied glass jars, VOA vials, and Teflon tubes were used at each sample location – no sampling equipment will be used at more than one sample location.

Sampling equipment was decontaminated between sampling locations at a specific site. Other non-sampling equipment was decontaminated with high-pressure steam and scrubbed with laboratory detergent, if necessary. The following procedure will be used for cleaning all sampling equipment:

- Remove gross contamination by brushing.
- Wash and scrub with laboratory grade detergent, if necessary.
- Rinse with tap water.
- Rinse with de-ionized water.

### *Field Custody Procedures*

Sample-tracking records include the sample labels and chain-of-custody seals to place over a container opening, and the Chain-of- Custody/Analysis Report forms. The samples taken were traceable from the time the samples were collected until they or their derived data are used in the final report. To maintain and document sample possession, the following field custody procedures shall be implemented.

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Drawing a line through and initialing and dating the change, then entering the correct information, made any corrections. Erasures or whiteouts were not permitted. When transferring possession of samples, the individuals relinquishing and receiving them signed, dated, and noted the time on the form. This form documents sample custody transfer from the sampler to the laboratory.

#### *Sample Identification*

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#### *Field Reports and Forms*

The Site Manager maintained a field logbook documenting all activity and samples during all phases of the investigation. The field logbook included the following information for each sample:

- Date
- Time
- Location
- Sample identification number
- How sample was collected
- Comments

The Site Manager kept the site logbook. This book summarized the daily activities, visitors, and problems encountered. Any entries made in the logbook were signed and dated by the individual. A telephone log was kept to document any project oriented phone conversations. The person holding the conversation made these entries. All forms (shipping, etc.) were kept, as necessary, in a binder with the field personnel. The logbooks were initiated at the start of the first on-site activity, and entries were made for everyday that site activities occur. The logbooks were weatherproof and bound with numbered pages.

#### **LABORATORY ANALYSIS**

Representative soil samples were submitted to a Washington State-Certified Laboratory (OnSite Environmental Laboratory, Redmond, WA) for the following chemical analyses.

- Halogenated Volatile Organic Compounds (EPA Method 8260C)