ROBINSON NOBLE SALTBUSH INC. Established 1947
GROUNDWATER & ENVIRONMENTAL SCIENTISTS

April 21, 2009

Alan J. Wertjes
Attorney at Law
1800 Cooper Pt. Rd. SW, Bldg. 3
Olympia, WA 98502

Subject: Site Investigation/characterization, Havens Property (aka) Johns Auto Wrecking, 411 93rd Avenue SE, Olympia, Washington

Dear Mr. Wertjes:

Robinson, Noble & Saltbush is pleased to present this letter report detailing our recent subsurface investigation of the Havens property. The site activities included the advancement of a total of 11 borings and excavation of 17 test pits. A series of soil and groundwater samples were collected and analyzed for potential contaminates associated with auto wrecking yard activities. The observations made during the subsurface work and the results of the laboratory analysis are presented below.

Site Location and History

The subject site is located within Township 17N, Range 02W, Section 23. The property is comprised of six parcels identified by Thurston County Assessor-Treasurer's records as parcels 12723210100, 12723220200, 12723210400, 12723210401, 12723210700, and 12723211000. The address assigned to these parcels is 411 93rd Avenue SE, Washington 98501 (Figure 1). These parcels are contiguous. The subject consists of approximately 15 acres.

In November 2008, Robinson, Noble and Saltbush completed a file review for the Havens property of available documents contained within the Washington State Department of Ecology (Ecology) and Thurston County Health Department records. Information within the department of Ecology records indicate the site is listed on the Department of Ecology's Hazardous Sites List. The site was ranked a "1" following the completion of a site-hazard assessment. Sites receiving a rank of 1 or 2 are generally considered the highest priority for cleanup by Ecology. Ecology loosely defines these sites as posing a risk to human health and the environment.

To address the site ranking, the property owners enrolled the site in the Ecology Voluntary Cleanup Program (VCP), but the site has since been removed from the VCP due to inactivity. During the site's enrollment within the VCP, a limited effort was made by the property owner to characterize the subject site. Eventually, activity ceased and no official reports were generated.

During the property owner's preliminary investigation, areas of concern were identified which we present below. Soil samples were collected with the assistance of Thurston County Health during the initial investigation. During this initial site work, Patrick Soderberg of Thurston County Health reportedly observed drums overflowing during a rainstorm event and releasing unknown quantities of petroleum hydrocarbons. Also, at the time of the initial investigation, the site contained a large number if automobiles and stored automotive parts and pieces. Since those initial site activities, the site has been cleared of nearly all the vehicles and many of the stored automotive pieces.

As part of the limited investigations completed while the site was enrolled in the VCP with Ecology, nine areas of concern were identified. A site diagram has been attached as Figure 2 which indicates the general areas of concern presented in the previous work. The nine areas were collaboratively identified following discussions with the property owner's previous consultant and representatives of Thurston County Health. The areas were identified as points of concern based upon on-site observations and discussions identifying specific types of past use.

Site Geology/Hydrology

The subject lies in a relatively flat, glacial outwash plain at an elevation approximately 200 feet above sea level. The site is within the Salmon Creek drainage basin and is prone to flooding during periods of heavy precipitation.

Soils in the area of the subject have been classified by the United States Department of Agriculture, published in the *Soil Survey for the Thurston County Washington Area* (1990), as predominantly two distinct soil types: Nisqually loamy, fine sand and Norma fine, sandy loam. These soils developed on glacial outwash plains and alluvium, respectively. Nearly three quarters of the property extending southward from the northern property boundary, are mapped as the Nisqually loamy, fine sand. The majority of the remaining property is mapped as Norma fine, sandy loam. Both of theses soils have high infiltration rates ranging from 1.98 to 5.98 in/hr. These descriptions are consistent with conditions observed during the drilling on site.

Surface water is present; Hopkins ditch bisects the southern quarter of the property, flowing from the eastern boundary to the southwestern corner of the property. A small pond/wetland is mapped on the southern half of parcel 12723210700. An additional wetland is mapped in the southeast corner of parcel 12723211000. The ditch, pond, and wetlands are believed to be a reflection of shallow ground water.

The subject property and surrounding area are located within a glacial outwash plain. The geological map of Thurston County, Washington, (*USGS Water-Supply Bulletin 10* by Noble and Wallace, 1966) has mapped the area as recessional outwash (Qvr1). That report describes the sediments *"as glaciofluvial materials deposited during recession of the Vashon glacier. Qvr [is] gravel*

and sand poorly sorted, usually above the water table but excellent aquifer where below the water table... Usually overlies till or recessional gravel."

Noble and Wallace (1966) report that this sandy outwash averages 25 feet thick but is much thicker to the north near Ward and Hewitt Lakes, approximately 2.5 miles away. Drost and others (1998) indicate the recessional outwash in the vicinity of the subject property ranges from 0 to 25 feet thick and may thicken to the west of the property. The recessional material, as mapped by Drost, appears to be absent approximately 1 mile southeast of the subject site.

In the normal sequence of glacial sediments in the Puget Sound area, Vashon till (Qvt) exists beneath the Vashon recessional outwash. Till is a compact mixture of clay, silt, sand, and gravel that typically has a relatively low permeability. Mapping by Drost and others (1998) indicate till is present at the property and has a thickness of 25 to 50 feet. Beneath the till is the Vashon advance outwash (Qva). The Qva is described by Drost as a coarse, sand and gravel aquifer.

The data obtained from drilling and excavation activities indicate the shallow geology below the subject property is composed of a heterogeneous mix of glacial recessional outwash deposits. The recessional sediments are a range of brown silts, sands, and gravel to silty, fine sands. These materials correlate closely with the description of the Qvr unit described by Drost. An increase in gravel size and distribution was noted in borings and test pits completed in the southern quarter of the property. Similar sediments were observed in all of the borings and excavated test pits. Shallow ground water was encountered in the borings at a depth of seven to nine feet below ground surface (bgs).

Shallow ground water beneath the subject site appears to be perched on the underlying compact till. The shallow groundwater gradient is presumed to trend toward Hopkins ditch. According to a Pacific Ground Water Group report[1], shallow ground water beneath the subject site flows toward Hopkins ditch. Since Hopkins ditch bisects a portion of the property, the gradient in areas north of the ditch trends to the southeast while areas south of the ditch trends toward the northwest. Shallow groundwater flow ultimately is controlled by the topographic surface of the underlying till material.

Site Activities

On February 15, 2009, site work for the Havens property began with a site walk completed by Robinson, Noble & Saltbush personnel and accompanied by a representative of APS, a private utility locating company. During the site walk, the boring and test pit locations were identified. Taking into account the nine areas of concern previously identified, additional field observations were used to determine the final locations of the 10 borings and test pits drilled or excavated for the current study (Figure 3). Observations made during the site inspections identified several potential contamination sources including partially filled steel drums, 24 five-gallon

[1] Pacific Ground Water Group, (2001) *Salmon Creek Drainage Basin Conceptual Model* prepared for URS Corp and Thurston County Water and Waste Management.

buckets (waste oil), two large industrial batteries, and a pile of old lighting fixtures. These remaining potential contamination sources should be collected and secured to prevent release of additional contamination into the environment.

Following the site walk, APS cleared each of the boring and test pit locations (Figure 3). Once the utility locate was completed, Northwest Probe, Inc., of Puyallup, Washington mobilized a direct-push drilling rig over the first boring location. A second contractor, Langseth Environmental Services of Tacoma, Washington began test pit excavation utilizing a rubber-tired backhoe. Field work was completed in one day.

Field screening was conducted during drilling and excavation operations using visual and olfactory observations. A total of 36 soil samples were collected from the test pits and 12 soil samples from the borings. Each of the soil samples were logged into the laboratory chain-of-custody; however, some of the deeper samples were held to be run following the results of soil samples taken from shallower depths within adjacent test pits. Soil and water samples not analyzed in the field were submitted to Libby Environmental for fixed laboratory (off-site) additional analysis (presented below). The complete analytical results of all the soil and groundwater submittals are attached in Appendix D and are summarized below.

A series of ten soil borings (Figures 4-6) were completed to depths ranging from 12 to 16 feet below ground surface (bgs). A series of 16 test pits were completed. The test pits were generally excavated to a depth of five feet bgs. The test pits were located in close proximity to the soil borings (Figure 3). At some locations, a second test pit at each boring location was incorporated into the work plan to allow for a more detailed site characterization. Two test pits were completed where staining, distressed vegetations, and or significant material storage were identified. Second test pits were completed at boring locations B1, B2, B3, B5, B6, and B9.

Each test pit and boring was logged and subjected to field screening. Field screening of samples from the borings did not suggest the presence of the target compounds. However, field screening for several of the test pit samples did. Target compounds include petroleum hydrocarbons, metals, PCB's, Chlorinated Solvents, and glycols. Selected soil samples were collected from the test pit and submitted for on-site laboratory analysis using a mobile laboratory provided by Libby Environmental, LLC. Soil samples were collected using EPA Method 5035A for volatile organic compound analysis (VOC). Samples were collected in standard four-ounce soil jars filled using stainless steel spoons. On-site analysis was completed for gasoline-, diesel-, and oil-range petroleum hydrocarbons. A water sample and selected soil samples were collected from each boring and submitted for additional on-site laboratory analysis.

Laboratory Results

Target analytes included petroleum hydrocarbons (gasoline NWTPH-Gx, diesel, and oil-range NWTPH-DxExt.), metals, PCBs, chlorinated solvents (8270), and glycols. The metals of concern have been subdivided into two separate categories: the five metals (lead, arsenic, cadmium,

chromium, mercury) commonly associated with contaminated sites and three additional metals (nickel, zinc, copper). The three additional metals were requested by Ecology in an opinion letter dated February 23, 2006 and have been targeted for areas where cars were crushed or repaired. Analysis for PCBs was completed for selected samples containing elevated levels of heavy oils. The table below presents the contaminates of concern for each of the nine areas of concern.

Table 1. Laboratory Breakdown

Contaminates of Concern	Areas of Concern	Media
Petroleum Hydrocarbons	All	Soil and Ground water
Metals (lead, arsenic, cadmium, chromium, mercury)	All	Soil and Ground water
Metals (nickel, zinc, copper)	1, 2, 3, 5, 8, 9	Soil and Ground water
PCBs	Lab dependant*	Soil and Ground water
Chlorinated Solvents	All	Soil and Ground water
Glycols	1, 3, 8, 9	Ground water

** Samples with heavy oil concentrations above MTCA Method A cleanup levels were run for PCBs*

All samples analyzed for VOC's, gasoline-range hydrocarbons, and glycols were determined to have concentrations of theses contaminates below laboratory detection levels. However, as shown on the attached analytical reports, concentrations of oil-range petroleum hydrocarbons and metals were detected in soil and groundwater samples. Laboratory results exceeding cleanup levels are discussed in detail in the following sections.

Soil concentrations of oil were identified in soil samples collected from six of the 16 test pits. The following table outlines the analytes and concentrations (above laboratory detection limits) detected in soil samples. Surface samples were collected from areas with observed soil staining and or distressed vegetation.

Table 2: Analytical Concentrations of NWTPH Dx/DX Ext. in Soil above Laboratory Detection Limits

Sample ID	Diesel (mg/kg)	Mineral Oil (mg/kg)	Oil (mg/kg)
TP1-Surf A	nd	nd	**66,700**
TP1-1'A	nd	nd	140
TP3-Surf B	nd	nd	500
TP5-Surf B	nd	nd	340
TP6-0.5'A	nd	nd	**61,900**
TP9-Surf A	nd	nd	320
Method A Limit	**2,000**	**4,000**	**2,000**

***Bold** denotes reported sample concentration exceeds MTCA Method A Limit; nd denotes analyte not detected above laboratory detection limit.*

Sample TP1-SurfA was collected from soil near an overturned, five-gallon bucket. Surprisingly, the initial results (mobile lab) for sample TP1-SurfA did not reveal elevated levels of oil. Considering the nature of the soil sample location, the lab was asked to re-analyze the sample. Libby completed the analysis at their fixed laboratory and a high oil concentration was identified. The bucket is believed to have been used to contain waste oil. Visual observations of the bucket indicate the bucket was approximately 80 percent full, suggesting a maximum release of one gallon of waste oil. The area surrounding TP1A was littered with 24 waste-oil buckets, many were observed to be full of oil. The remaining buckets appeared upright and intact.

Sample TP6-0.5'A was collected just below the surface near concrete bunkers along the western edge of the property in an area described as hazardous material storage. Several partially filled drums were observed within the concrete bunkers. The contents of the drums are unknown.

Samples from TP3B, TP5B, TP6A, and TP9A were analyzed for PCBs. As stated above, the initial laboratory results for TP1-SurfA did not reveal a detection of oil. Therefore, at the time the selection of soil samples by the lab to be analyzed for PCBs (as per the work plan), TP1-SurfA was not selected for anaylsis. Once the discrepancy was identified, the samples had been disposed of. None of the soil samples analyzed for PCBs were determined to exceed the MTCA Method A cleanup levels of 1.0 mg/kg. Analytical results for sample TP6-0.5A indicate a level of Aroclor 1260 of 0.9 mg/kg. Aroclor 1260 is one of a number of common PCB blends generally associated with electrical equipment. No oil or PCBs were detected in any of the groundwater samples collected.

The laboratory results from the metals analysis for the soil samples identified several samples with elevated levels of metals. As previously discussed, MTCA five metals (lead, cadmium, arsenic, and mercury), as well as, copper, zinc, and nickel were analyzed for selected soil and groundwater samples. No soil samples were found to exceed the respective MTCA Method A cleanup level. However, analysis of a soil sample collected from TP1-1'B revealed an elevated level of nickel of 115 mg/kg. The MTCA Priority Contaminates of Ecological Concern Table 749-2 presented in Model Toxics Control Act WAC 173-340, indicates a maximum soil concentration for unrestricted land use of nickel is 100 mg/kg. Depending on the designed end use of the property, these levels may be more restrictive then necessary. However, since additional soil remediation is recommended for the area surrounding TP1, it may be prudent to remove the all known impacted soils and include nickel in the confirmation sampling. Additional discussion concerning recommended remediation efforts is presented below.

The laboratory results from the metal's analysis on selected groundwater samples identified five borings with detected analytes. Of the ten borings completed, all but B4 and B10 were run for zinc, copper, and nickel. These borings were not selected because the presumed former site activities at these locations did not involve activities likely to generate the target compounds in

question. Borings B5, B8, B9, B10, and B11 were each found to contain metals above detection levels. The analytical results are presented in Table 3 below.

Table 3: Analytical Concentrations of Metals in Water above Laboratory Detection Limits

Sample ID	Lead (ug/l)	Cadmium (ug/l)	Chromium (ug/l)	Arsenic (ug/l)	Mercury (ug/l)	Zinc (ug/l)	Copper (ug/l)	Nickel (ug/l)
B5	11	nd	nd	nd	nd	nd	22	nd
B8	**25**	nd	30	**14**	nd	113	196	nd
B9	**113**	2.0	34	**32**	nd	560	**1400**	**807**
B10	**72**	nd	**54**	**7**	nd	nd	nd	n/a
B11	nd	nd	nd	nd	nd	nd	nd	**239**
Method A Limit	**15**	**5.0**	**50/100***	**5.0**	**2.0**			
Method B Limit						**4,800**	**590**	**1400a/ 160c****

Bold *denotes reported sample concentration exceeds reported cleanup limit; nd denotes analyte not detected above laboratory detection limit; n/a denotes not analyzed.*

* *MTCA Method A Cleanup Level 50 ug/l when Chromium VI present and 100 ug/l when absent*

** *National Toxic Rule, EPA 40 CFR part 131, fresh water 1400a (acute exposure)/160c (chronic exposure) limits*

Given the lack of a published MTCA Method A or calculated Method B clean up for nickel, we have chosen to present the National Toxic Rules exposure limits for fresh water bodies. These exposure limits are likely to be applied to any water in direct connection with the surrounding creek and wetlands.

Discussion

The initial phase of this investigation revealed some contamination from petroleum hydrocarbons has impacted soil beneath the site. Laboratory analyses of soil samples collected indicate the presence of petroleum contamination in excess of current MTCA Method A cleanup levels in areas observed to have surface staining.

The two samples identified as exceeding MTCA cleanup levels were located at TP1A and TP6A, both where surface staining was observed. The high levels of oils were detected in shallow soil samples, collected at or near the ground surface. Additional soil samples, collected at deeper levels were found to have concentrations below cleanup levels. Laboratory analyses of groundwater samples collected from each of the ten borings did not indicate the presence of petroleum hydrocarbons above practical quantitative laboratory detection levels. The nature of the observed soil impacts, and the lack of groundwater impacts, suggests a targeted removal of the stained material should suffice to remediate the petroleum hydrocarbon contamination. With the collection of confirmation samples, the remediation will generate an estimated five to ten cubic yards of material. Confirmation sampling should include analysis for oil, cPAH, and PCBs.

Groundwater sampling identified concentrations of lead, chromium, and arsenic above the respective MTCA Method A cleanup levels. The metals were identified in three borings located within the southern third of the property. Shallow soil samples collected from these areas revealed soil concentrations of the targeted metals to be below MTCA Method A cleanup levels. Soil samples collected from borings B8, B9, and B10 were all well below applicable clean up levels for the target metals.

Chromium concentrations in boring B10 revealed levels exceeding MTCA Method A clean up for chromium when hexavalent chromium is present. Following the initial laboratory results, sample B10 was delivered to Spectra Laboratories of Tacoma, Washington for additional investigation. The sample was analyzed for the presence of hexavalent chromium. The laboratory results indicate levels of hexavalent chromium were below 0.01 mg/l. However, the sample was two days outside the allowable holding time for groundwater samples and, as such, the results are not definitive. Discussions with Libby Environmental suggest that exceeding the holding should not change the results, and it is therefore unlikely that any hexavalent chromium is impacting the ground water beneath the site.

Additional target compounds zinc, copper, and nickel were analyzed for the collected groundwater samples. Samples from B9 and B11 were determined to have copper and nickel concentrations exceeding published clean up levels. B11 is in the central portion of the property.

The groundwater samples were collected from direct-push soil borings through a temporary screen placed in the open borehole. While this method allows for adequate water entry and sample collection, the temporary nature of the screen set prevents adequate well development and purging. Groundwater samples collected from direct-push soil borings are generally turbid, containing high amounts of suspended and colloidal solids. It is likely, given the nature of the groundwater sampling completed during this initial investigation, that the metals levels identified in the ground water are artificially high. Prior to initiating a remedial effort, an additional round of groundwater samples should be collected from properly developed, monitoring wells.

Recommendations

Additional site work should include:

- Entry into Ecology's Voluntary Cleanup Program (VCP) should be made in order to assure that assessment and remedial action tasks are completed to the satisfaction of Ecology. As part of the site entry into the VCP, a Terrestrial Ecological Evaluation should be completed (due to the site proximity to mapped wetlands).

- Excavation and removal of identified contaminated soil surrounding test pits TP1A and TP6A coupled with conformational sampling.

- Confirmation sampling following the removal of petroleum impacted soils should include testing for cPAH and PCBs.

- Characterization and removal of all remaining sources of contamination including steel drums, five-gallon buckets, batteries, and old electrical fixtures.

- Installation of three monitoring wells to allow for proper development and low-flow sampling. The monitoring wells should be installed within close proximity the locations of B8, B9, and B10. The monitoring wells should be designed to sample shallow ground water, screened form ~7- to 20-feet bgs depending on anticipated seasonal water level fluctuations. The monitoring wells, once developed, will be sampled for lead, cadmium, chromium, arsenic, mercury, copper, zinc, and nickel.

Summary

It is our opinion that the contaminants identified are the result of historic site activities associated with the operation of an auto wrecking yard. Given the recent removal of a majority of the sources of contamination, removal of the impacted soils and remaining potential sources scattered across the site will alleviate much of the need for future remedial activities. It is also our opinion that properly constructed and developed monitoring wells will provide a more accurate representation of the ground water beneath the subject site. Our experience has shown properly developed and sampled wells have generally provided lower concentrations of metals within sampled ground water previously identified with elevated metals concentrations. Provided this assumption proves out, additional site characterization concerning groundwater contamination (including plume delineation) and additional remedial efforts may not be necessary.

We appreciate this opportunity to be of service. Please do not hesitate to contact me if you have any questions.

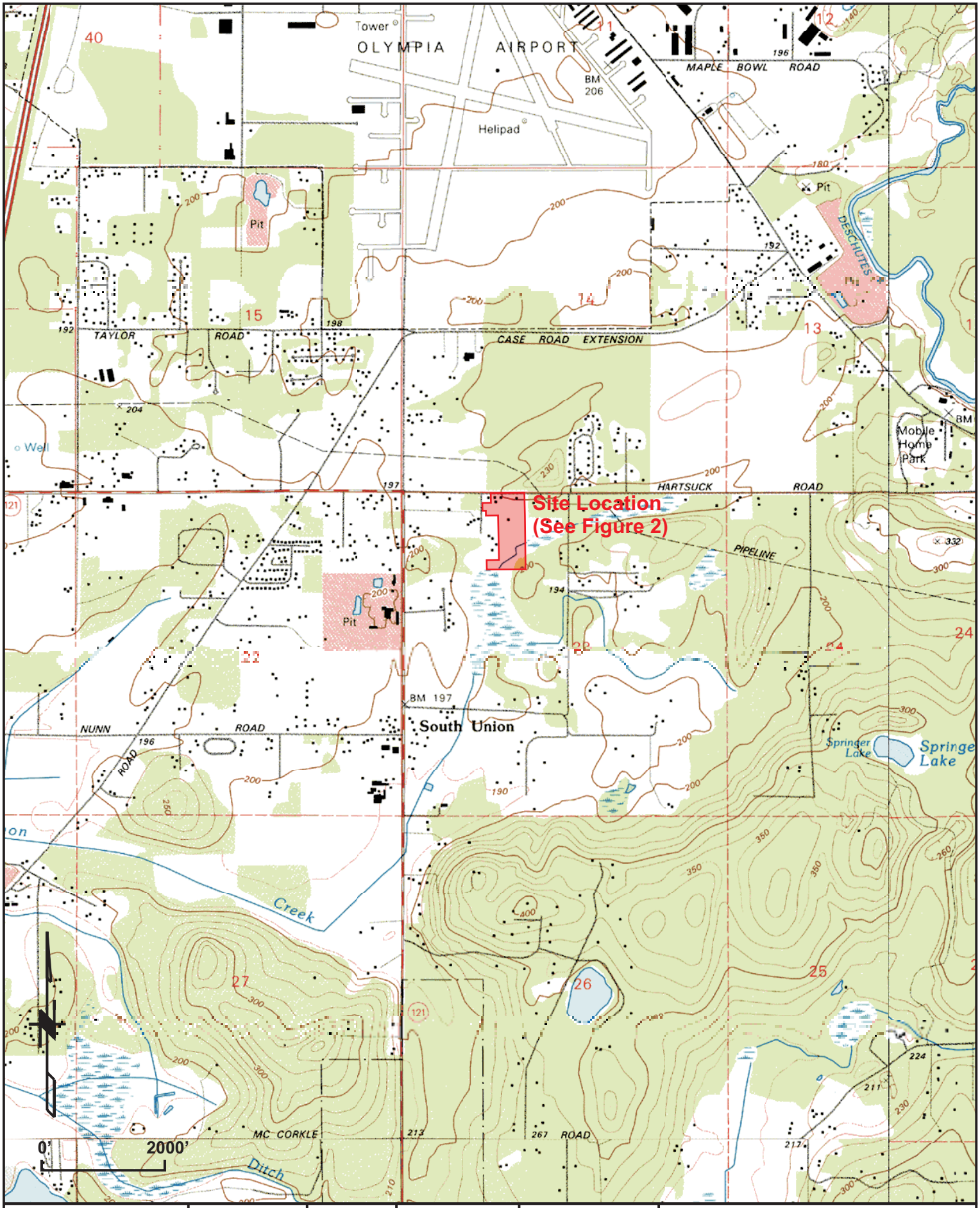
Very truly yours,
Robinson, Noble & Saltbush, Inc.

Richard A. Bieber, LG
Project Hydrogeologist, Project Manager

John F. Hildenbrand
Associate Environmental Scientist
Environmental Services Manager

attachments

RICHARD A. BIEBER



ROBINSON NOBLE SALTBUSH INC. GROUNDWATER & ENVIRONMENTAL SCIENTISTS	Note: Basemap taken from USGS Maytown Quad.	PM: RAB April 2009	Thurston County 2491-001B	T 17 N/R 02 W - 23 Scale 1 " = 2000'

Figure 1
Vicinity Map
Havens Property: 93rd Ave SE, Oly/Site Characterization

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Note: Image taken from Thurston County GIS Website

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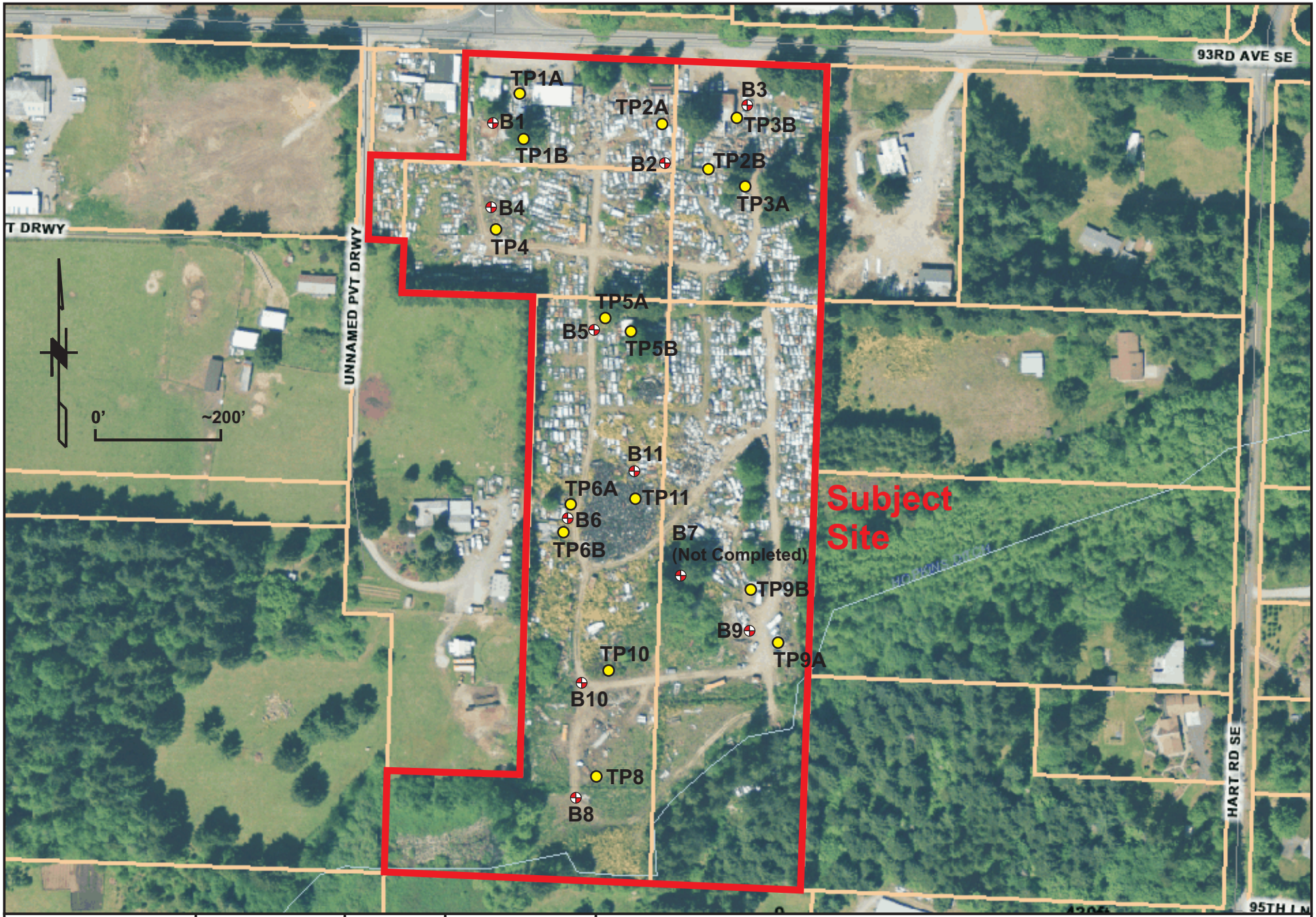
Thurston County
T 17 N/R 02 W - 23
Scale 1" = ~200'

Figure 2
Aerial Photo and Identified Areas of Concern
Havens Property: 93rd Ave SE, Oly/Site Characterization



ROBINSON NOBLE SALTBUSH INC. GROUNDWATER & ENVIRONMENTAL SCIENTISTS	Note: Image taken from Thurston County GIS Website	PM: RAB April 2009 2491-001B	Thurston County T 17 N/R 02 W - 23 Scale 1” = ~200’	Figure 3 Test Pits and Boring Locations Photo Havens Property: 93rd Ave SE, Oly/Site Characterization

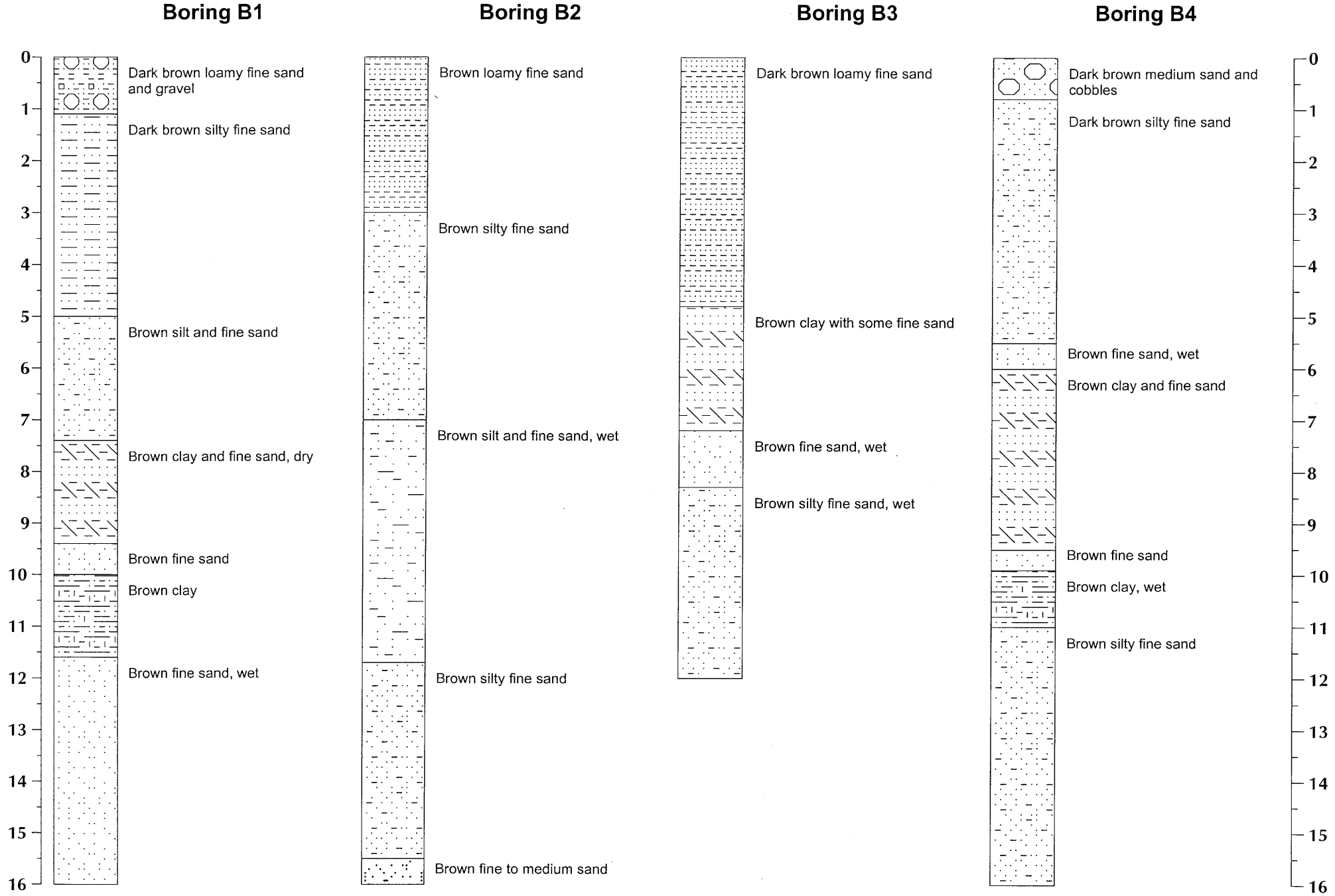


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Figure 4
Boring Logs
Havens Property: 93rd Ave SE, Oly/Site Characterization

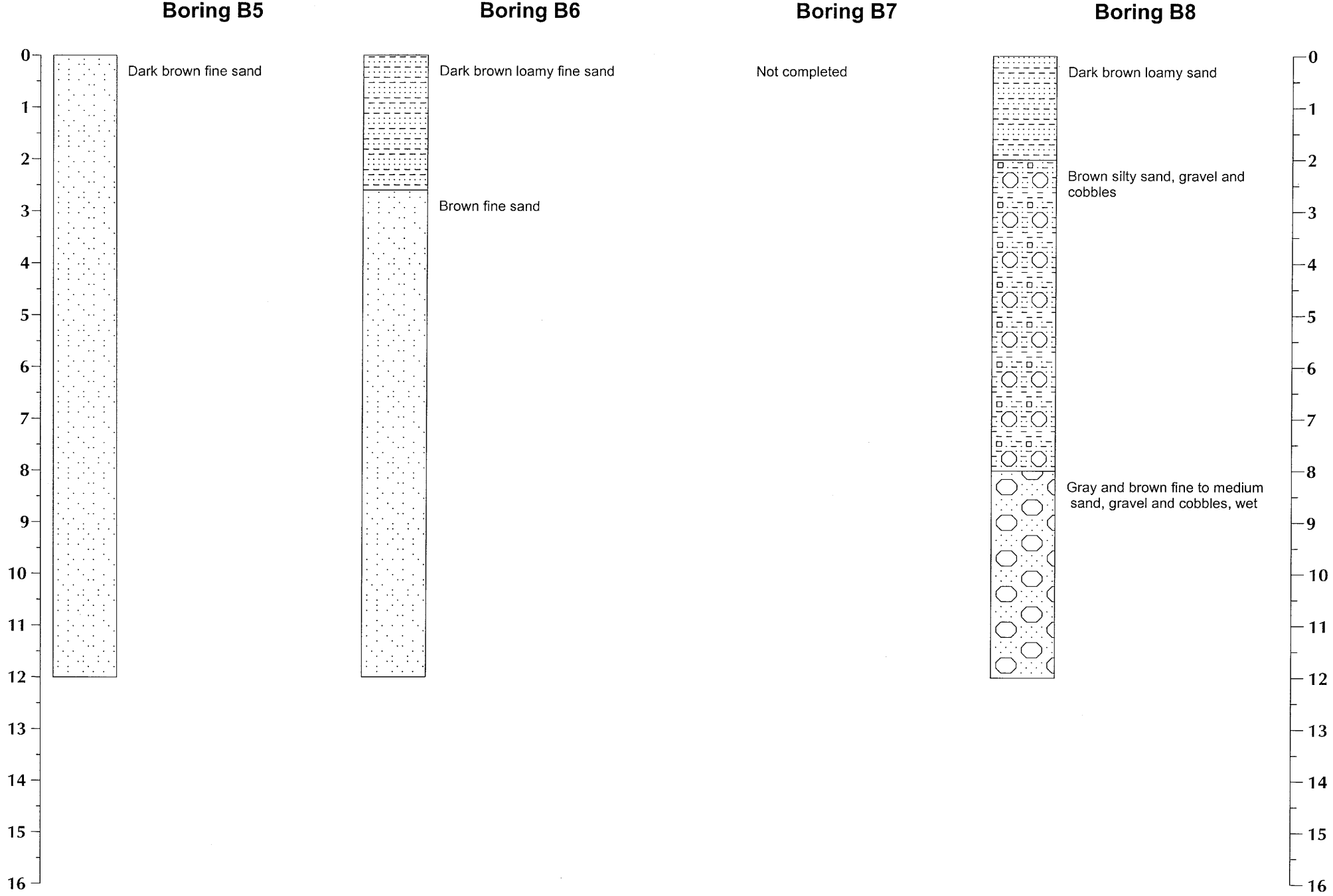

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Figure 5
Boring Logs
Havens Property: 93rd Ave SE, Oly/Site Characterization

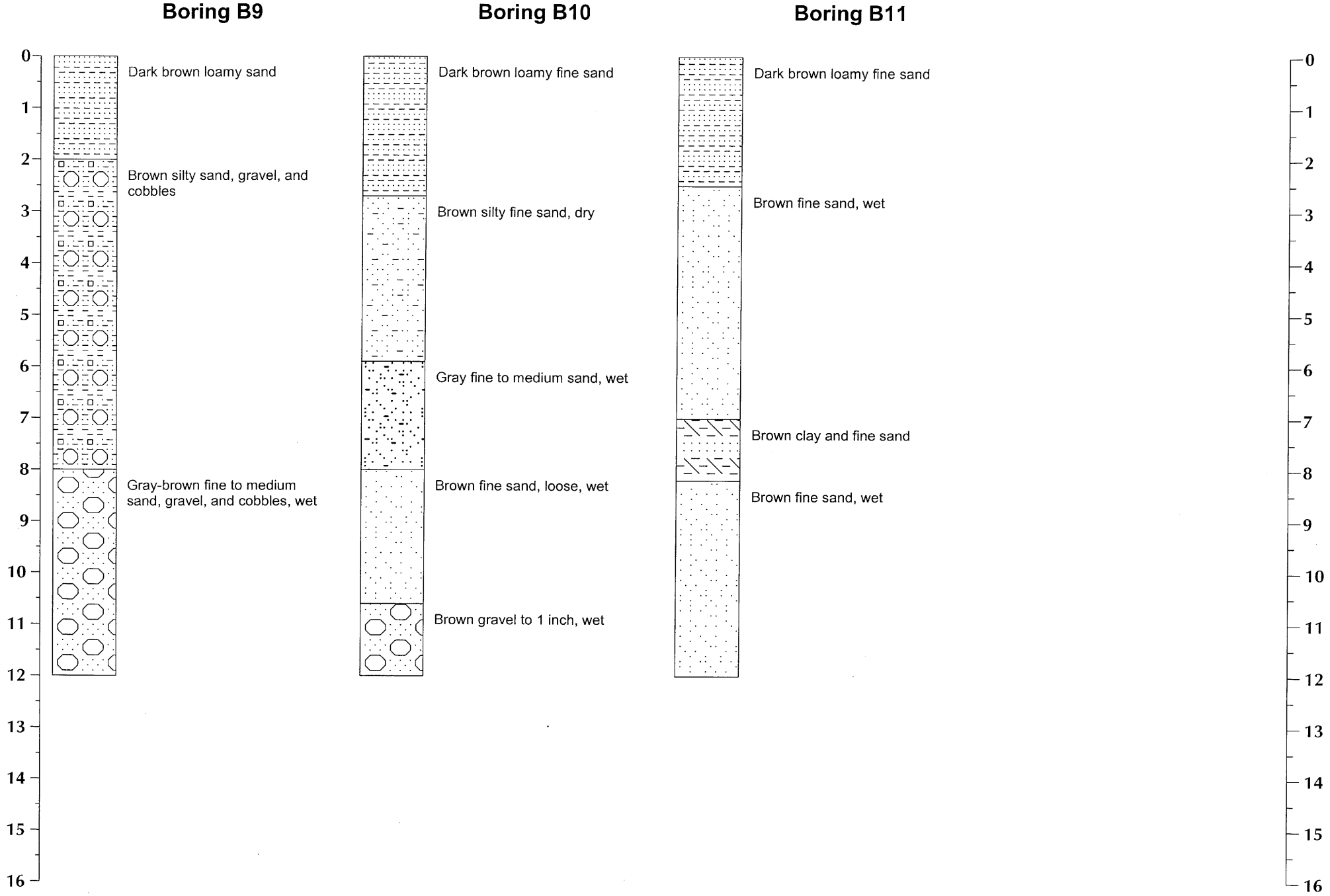

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Figure 6
Boring Logs
Havens Property: 93rd Ave SE, Oly/Site Characterization

Libby Environmental, Inc.

4139 Libby Road N.E., Olympia, WA 98506-2518

March 13, 2009

Rick Bieber
Robinson, Noble & Saltbush, Inc.
3011 Huson Street South
Suite A
Tacoma, WA 98409

Dear Mr. Bieber:

Please find enclosed the analytical data report for the Havens Project located in Tumwater, Washington. Mobile Lab Services were conducted on February 18, 2009. Soil and water samples were received and analyzed for Volatile Organic Compounds by EPA Method 8260B. Additional samples were analyzed off site for Gasoline by NWTPH-Gx, Diesel & Oil NWTPH-Dx/Dx Extended, Metals by EPA Method 7000 Series, and Glycols.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed. All soil samples are reported on a dry weight basis.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
President
Libby Environmental, Inc.

Phone (360) 352-2110 * Fax (360) 352-4154 * libbyenv@aol.com

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN SOIL

Sample Description		Method Blank	TP1 Surf A	TP1-1'B	TP2-1' A	TP2-1' B	TP4-1'
Date Extracted	Reporting	N/A	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
Date Analyzed	Limits	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	nd	nd	nd	nd	nd	nd
Chloromethane	0.06	nd	nd	nd	nd	nd	nd
Vinyl chloride *	0.02	nd	nd	nd	nd	nd	nd
Bromomethane	0.09	nd	nd	nd	nd	nd	nd
Chloroethane	0.06	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
Methylene chloride	0.02	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.02	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
Chloroform	0.02	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane (TCA)	0.02	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.02	nd	nd	nd	nd	nd	nd
Benzene	0.02	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.03	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.03	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.02	nd	nd	nd	nd	nd	nd
Dibromomethane	0.04	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.02	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.02	nd	nd	nd	nd	nd	nd
Toluene	0.02	nd	nd	nd	nd	nd	nd
Trans-1,3-Dichloropropene	0.03	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.03	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.03	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB) *	0.005	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.02	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.03	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.03	nd	nd	nd	nd	nd	nd
Total Xylenes	0.03	nd	nd	nd	nd	nd	nd
Styrenes	0.02	nd	nd	nd	nd	nd	nd

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN SOIL

Sample Description		Method Blank	TP1 Surf A	TP1-1'B	TP2-1' A	TP2-1' B	TP4-1'
Date Extracted	Reporting	N/A	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
Date Analyzed	Limits	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Bromoform	0.02	nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.08	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.02	nd	nd	nd	nd	nd	nd
Bromobenzene	0.03	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.02	nd	nd	nd	nd	nd	nd
n-Propylbenzene	0.02	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.02	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.02	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.02	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	0.02	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.02	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	0.02	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.02	nd	nd	nd	nd	nd	nd
Isopropyltoluene	0.02	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.02	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.02	nd	nd	nd	nd	nd	nd
n-Butylbenzene	0.02	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.03	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorolbenzene	0.05	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.10	nd	nd	nd	nd	nd	nd
Naphthalene	0.03	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd	nd	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		125	128	131	110	132	111
1,2-Dichloroethane-d4		84	75.7	128	92.1	84.8	86.5
Toluene-d8		117	118	117	119	117	117
4-Bromofluorobenzene		112	117	108	100	121	103

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

* INSTRUMENT DETECTION LIMIT
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%
ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

QA/QC Data - EPA 8260B Analyses

	Sample Identification: TP1-1'B						
	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	
1,1-Dichloroethene	1.00	0.68	68	1.00	0.84	84	21.1
Benzene	1.00	0.80	80	1.00	0.98	98	20.2
Toluene	1.00	0.78	78	1.00	1.00	100	24.7
Chlorobenzene	1.00	1.03	103	1.00	1.29	129	22.4
Trichloroethene (TCE)	1.00	0.67	67	1.00	0.84	84	22.5
Surrogate Recovery							
Dibromofluoromethane			132			128	
1,2-Dichloroethane-d4			88.8			90.2	
Toluene-d8			117			117	
4-Bromofluorobenzene			110			111	

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
1,1-Dichloroethene	1.00	0.72	72
Benzene	1.00	0.88	88
Toluene	1.00	0.88	88
Chlorobenzene	1.00	0.74	74
Trichloroethene (TCE)	1.00	0.71	71
Surrogate Recovery			
Dibromofluoromethane			127
1,2-Dichloroethane-d4			91
Toluene-d8			115
4-Bromofluorobenzene			126

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN SOIL

Sample Description		Method Blank	TP5-0.5' A	TP5 Surf B	TP6-0.5' A	TP6 Surf B	TP8-3'
Date Extracted	Reporting	N/A	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
Date Analyzed	Limits	2/22/09	2/22/09	2/22/09	2/22/09	2/22/09	2/22/09
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	nd	nd	nd	nd	nd	nd
Chloromethane	0.06	nd	nd	nd	nd	nd	nd
Vinyl chloride *	0.02	nd	nd	nd	nd	nd	nd
Bromomethane	0.09	nd	nd	nd	nd	nd	nd
Chloroethane	0.06	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
Methylene chloride	0.02	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.02	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
Chloroform	0.02	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane (TCA)	0.02	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.02	nd	nd	nd	nd	nd	nd
Benzene	0.02	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.03	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.03	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.02	nd	nd	nd	nd	nd	nd
Dibromomethane	0.04	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.02	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.02	nd	nd	nd	nd	nd	nd
Toluene	0.02	nd	nd	nd	nd	nd	nd
Trans-1,3-Dichloropropene	0.03	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.03	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.03	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB) *	0.005	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.02	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.03	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.03	nd	nd	nd	nd	nd	nd
Total Xylenes	0.03	nd	nd	nd	nd	nd	nd
Styrenes	0.02	nd	nd	nd	nd	nd	nd

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN SOIL

Sample Description		Method Blank	TP5-0.5' A	TP5 Surf B	TP6-0.5' A	TP6 Surf B	TP8-3'
Date Extracted	Reporting	N/A	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
Date Analyzed	Limits	2/22/09	2/22/09	2/22/09	2/22/09	2/22/09	2/22/09
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Bromoform	0.02	nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.08	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.02	nd	nd	nd	nd	nd	nd
Bromobenzene	0.03	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.02	nd	nd	nd	nd	nd	nd
n-Propylbenzene	0.02	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.02	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.02	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.02	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	0.02	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.02	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	0.02	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.02	nd	nd	nd	nd	nd	nd
Isopropyltoluene	0.02	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.02	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.02	nd	nd	nd	nd	nd	nd
n-Butylbenzene	0.02	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.03	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorolbenzene	0.05	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.10	nd	nd	nd	nd	nd	nd
Naphthalene	0.03	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd	nd	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		128	97.1	132	125	123	131
1,2-Dichloroethane-d4		87.1	90.8	80.6	117	120	73.3
Toluene-d8		112	111	113	119	114	121
4-Bromofluorobenzene		115	93.1	116	108	108	120

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

* INSTRUMENT DETECTION LIMIT
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%
ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN SOIL

Sample Description		TP9 Surf A	TP9 Surf A Dup	TP9 Surf B	TP9-1' B	TP10-1'	TP3-1A
Date Extracted	Reporting	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
Date Analyzed	Limits	2/22/09	2/22/09	2/22/09	2/22/09	2/22/09	2/22/09
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	nd	nd	nd	nd	nd	nd
Chloromethane	0.06	nd	nd	nd	nd	nd	nd
Vinyl chloride *	0.02	nd	nd	nd	nd	nd	nd
Bromomethane	0.09	nd	nd	nd	nd	nd	nd
Chloroethane	0.06	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
Methylene chloride	0.02	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.02	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
Chloroform	0.02	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane (TCA)	0.02	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.02	nd	nd	nd	nd	nd	nd
Benzene	0.02	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.03	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.03	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.02	nd	nd	nd	nd	nd	nd
Dibromomethane	0.04	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.02	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.02	nd	nd	nd	nd	nd	nd
Toluene	0.02	nd	nd	nd	nd	nd	nd
Trans-1,3-Dichloropropene	0.03	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.03	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.03	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB) *	0.005	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.02	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.03	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.03	nd	nd	nd	nd	nd	nd
Total Xylenes	0.03	nd	nd	nd	nd	nd	nd
Styrenes	0.02	nd	nd	nd	nd	nd	nd

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN SOIL

Sample Description		TP9 Surf A	TP9 Surf A Dup	TP9 Surf B	TP9-1' B	TP10-1'	TP3-1A
Date Extracted	Reporting	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
Date Analyzed	Limits	2/22/09	2/22/09	2/22/09	2/22/09	2/22/09	2/22/09
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Bromoform	0.02	nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.08	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.02	nd	nd	nd	nd	nd	nd
Bromobenzene	0.03	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.02	nd	nd	nd	nd	nd	nd
n-Propylbenzene	0.02	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.02	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.02	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.02	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	0.02	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.02	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	0.02	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.02	nd	nd	nd	nd	nd	nd
Isopropyltoluene	0.02	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.02	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.02	nd	nd	nd	nd	nd	nd
n-Butylbenzene	0.02	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.03	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorolbenzene	0.05	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.10	nd	nd	nd	nd	nd	nd
Naphthalene	0.03	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd	nd	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		103	131	128	127	132	101
1,2-Dichloroethane-d4		79.1	78.5	75.8	77.7	96.4	99.3
Toluene-d8		112	120	125	117	114	130
4-Bromofluorobenzene		94	112	121	109	112	99.0

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

* INSTRUMENT DETECTION LIMIT
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%
ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN SOIL

Sample Description		TP3 Surf B	TP11-1'
Date Extracted	Reporting	2/18/09	2/18/09
Date Analyzed	Limits	2/22/09	2/22/09
	(mg/kg)	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	nd	nd
Chloromethane	0.06	nd	nd
Vinyl chloride *	0.02	nd	nd
Bromomethane	0.09	nd	nd
Chloroethane	0.06	nd	nd
Trichlorofluoromethane	0.05	nd	nd
1,1-Dichloroethene	0.05	nd	nd
Methylene chloride	0.02	nd	nd
trans -1,2-Dichloroethene	0.02	nd	nd
1,1-Dichloroethane	0.02	nd	nd
2,2-Dichloropropane	0.05	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd
Chloroform	0.02	nd	nd
1,1,1-Trichloroethane (TCA)	0.02	nd	nd
Carbon tetrachloride	0.02	nd	nd
1,1-Dichloropropene	0.02	nd	nd
Benzene	0.02	nd	nd
1,2-Dichloroethane (EDC)	0.03	nd	nd
Trichloroethene (TCE)	0.03	nd	nd
1,2-Dichloropropane	0.02	nd	nd
Dibromomethane	0.04	nd	nd
Bromodichloromethane	0.02	nd	nd
cis-1,3-Dichloropropene	0.02	nd	nd
Toluene	0.02	nd	nd
Trans-1,3-Dichloropropene	0.03	nd	nd
1,1,2-Trichloroethane	0.03	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd
1,3-Dichloropropane	0.05	nd	nd
Dibromochloromethane	0.03	nd	nd
1,2-Dibromoethane (EDB) *	0.005	nd	nd
Chlorobenzene	0.02	nd	nd
1,1,1,2-Tetrachloroethane	0.03	nd	nd
Ethylbenzene	0.03	nd	nd
Total Xylenes	0.03	nd	nd
Styrenes	0.02	nd	nd

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN SOIL

Sample Description		TP3 Surf B	TP11-1'
Date Extracted Date Analyzed	Reporting Limits (mg/kg)	2/18/09 2/22/09 (mg/kg)	2/18/09 2/22/09 (mg/kg)
Bromoform	0.02	nd	nd
Isopropylbenzene	0.08	nd	nd
1,2,3-Trichloropropane	0.02	nd	nd
Bromobenzene	0.03	nd	nd
1,1,2,2-Tetrachloroethane	0.02	nd	nd
n-Propylbenzene	0.02	nd	nd
2-Chlorotoluene	0.02	nd	nd
4-Chlorotoluene	0.02	nd	nd
1,3,5-Trimethylbenzene	0.02	nd	nd
tert-Butylbenzene	0.02	nd	nd
1,2,4-Trimethylbenzene	0.02	nd	nd
sec-Butylbenzene	0.02	nd	nd
1,3-Dichlorobenzene	0.02	nd	nd
Isopropyltoluene	0.02	nd	nd
1,4-Dichlorobenzene	0.02	nd	nd
1,2-Dichlorobenzene	0.02	nd	nd
n-Butylbenzene	0.02	nd	nd
1,2-Dibromo-3-Chloropropane	0.03	nd	nd
1,2,4-Trichlorolbenzene	0.05	nd	nd
Hexachloro-1,3-butadiene	0.10	nd	nd
Naphthalene	0.03	nd	nd
1,2,3-Trichlorobenzene	1.0	nd	nd
Surrogate Recovery			
Dibromofluoromethane		125	123
1,2-Dichloroethane-d4		115	110
Toluene-d8		116	112
4-Bromofluorobenzene		102	101

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

* INSTRUMENT DETECTION LIMIT
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%
ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

QA/QC Data - EPA 8260B Analyses

Sample Identification: TP10-1'							
	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	
1,1-Dichloroethene	1.00	1.27	127	1.00	1.03	103	20.9
Benzene	1.00	0.97	97	1.00	1.27	127	26.8
Toluene	1.00	1.13	113	1.00	1.24	124	9.3
Chlorobenzene	1.00	1.20	120	1.00	0.91	91	27.5
Trichloroethene (TCE)	1.00	0.78	78	1.00	0.98	98	22.7
Surrogate Recovery							
Dibromofluoromethane			134			132	
1,2-Dichloroethane-d4			80.4			89.0	
Toluene-d8			115			116	
4-Bromofluorobenzene			113			119	

Laboratory Control Sample			
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
1,1-Dichloroethene	1.00	0.85	85
Benzene	1.00	1.24	124
Toluene	1.00	1.35	135
Chlorobenzene	1.00	0.75	75
Trichloroethene (TCE)	1.00	1.00	100
Surrogate Recovery			
Dibromofluoromethane			131
1,2-Dichloroethane-d4			89.5
Toluene-d8			117
4-Bromofluorobenzene			116

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN WATER

Sample Description		Method Blank	B1	B2	B2 Dup	B3	B4
Date Sampled	Reporting	N/A	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
Date Analyzed	Limits (ug/l)	2/18/09 (ug/l)	2/18/09 (ug/l)	2/18/09 (ug/l)	2/18/09 (ug/l)	2/18/09 (ug/l)	2/18/09 (ug/l)
Dichlorodifluoromethane	2.0	nd	nd	nd	nd	nd	nd
Chloromethane	2.0	nd	nd	nd	nd	nd	nd
Vinyl chloride *	0.2	nd	nd	nd	nd	nd	nd
Bromomethane	2.0	nd	nd	nd	nd	nd	nd
Chloroethane	2.0	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	2.0	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	2.0	nd	nd	nd	nd	nd	nd
Methylene chloride	1.0	nd	nd	nd	nd	nd	nd
MTBE	1.0	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	2.0	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd	nd
Chloroform	1.0	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane (TCA)	1.0	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	1.0	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd	nd	nd	nd	nd	nd
Benzene	1.0	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	1.0	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd	nd	nd	nd	nd	nd
Dibromomethane	1.0	nd	nd	nd	nd	nd	nd
Bromodichloromethane	1.0	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd	nd
Toluene	1.0	nd	nd	nd	nd	nd	nd
Trans-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	1.0	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd	nd	nd	nd	nd	nd
Dibromochloromethane	1.0	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB) *	0.01	nd	nd	nd	nd	nd	nd
Chlorobenzene	1.0	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd	nd
Ethylbenzene	1.0	nd	nd	nd	nd	nd	nd
Total Xylenes	1.0	nd	nd	nd	nd	nd	nd
Styrenes	1.0	nd	nd	nd	nd	nd	nd

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN WATER

Sample Description		Method Blank	B1	B2	B2 Dup	B3	B4
Date Extracted	Reporting	N/A	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
Date Analyzed	Limits	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Isopropylbenzene	4.0	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd	nd	nd	nd	nd	nd
Bromobenzene	1.0	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd	nd
n-Propylbenzene	1.0	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	1.0	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	1.0	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	1.0	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	1.0	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd	nd	nd	nd	nd	nd
Isopropyltoluene	1.0	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd	nd	nd	nd	nd	nd
n-Butylbenzene	1.0	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorolbenzene	2.0	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	5.0	nd	nd	nd	nd	nd	nd
Naphthalene	5.0	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	5.0	nd	nd	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		125	133	86.7	127	128	127
1,2-Dichloroethane-d4		84	122	66.8	72.4	80.2	103
Toluene-d8		117	121	108	118	109	117
4-Bromofluorobenzene		112	108	86.6	110	113	100

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

* INSTRUMENT DETECTION LIMIT
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%
ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

QA/QC Data - EPA 8260B Analyses

	Sample Identification: B1						
	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)	
1,1-Dichloroethene	30	24.0	80	30	32.9	110	31.3
Benzene	30	28.9	96	30	37.7	126	26.4
Toluene	30	27.6	92	30	37.2	124	29.6
Chlorobenzene	30	28.6	95	30	26.2	87	8.8
Trichloroethene (TCE)	30	24.4	81	30	32.6	109	28.8
Surrogate Recovery							
Dibromofluoromethane			133			127	
1,2-Dichloroethane-d4			87			78	
Toluene-d8			118			115	
4-Bromofluorobenzene			112			116	

	Laboratory Control Sample		
	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)
1,1-Dichloroethene	20	14.3	72
Benzene	20	17.6	88
Toluene	20	17.6	88
Chlorobenzene	20	14.9	75
Trichloroethene (TCE)	20	14.2	71
Surrogate Recovery			
Dibromofluoromethane			127
1,2-Dichloroethane-d4			91
Toluene-d8			115
4-Bromofluorobenzene			126

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN WATER

Sample Description		B6	B8	B9	B10	B11
Date Sampled	Reporting	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
Date Analyzed	Limits	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Dichlorodifluoromethane	2.0	nd	nd	nd	nd	nd
Chloromethane	2.0	nd	nd	nd	nd	nd
Vinyl chloride *	0.2	nd	nd	nd	nd	nd
Bromomethane	2.0	nd	nd	nd	nd	nd
Chloroethane	2.0	nd	nd	nd	nd	nd
Trichlorofluoromethane	2.0	nd	nd	nd	nd	nd
1,1-Dichloroethene	2.0	nd	nd	nd	nd	nd
Methylene chloride	1.0	nd	nd	nd	nd	nd
MTBE	1.0	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd	nd	nd	nd	nd
2,2-Dichloropropane	2.0	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd
Chloroform	1.0	nd	nd	nd	nd	nd
1,1,1-Trichloroethane (TCA)	1.0	nd	nd	nd	nd	nd
Carbon tetrachloride	1.0	nd	nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd	nd	nd	nd	nd
Benzene	1.0	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd	nd	nd	nd	nd
Trichloroethene (TCE)	1.0	nd	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd	nd	nd	nd	nd
Dibromomethane	1.0	nd	nd	nd	nd	nd
Bromodichloromethane	1.0	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd
Toluene	1.0	nd	nd	nd	nd	nd
Trans-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	1.0	nd	nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd	nd	nd	nd	nd
Dibromochloromethane	1.0	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB) *	0.01	nd	nd	nd	nd	nd
Chlorobenzene	1.0	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd
Ethylbenzene	1.0	nd	nd	nd	nd	nd
Total Xylenes	1.0	nd	nd	nd	nd	nd
Styrenes	1.0	nd	nd	nd	nd	nd

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD 8260B IN WATER

Sample Description		B6	B8	B9	B10	B11
Date Extracted	Reporting	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
Date Analyzed	Limits	2/18/09	2/18/09	2/18/09	2/18/09	2/18/09
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Isopropylbenzene	4.0	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd	nd	nd	nd	nd
Bromobenzene	1.0	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd
n-Propylbenzene	1.0	nd	nd	nd	nd	nd
2-Chlorotoluene	1.0	nd	nd	nd	nd	nd
4-Chlorotoluene	1.0	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd	nd	nd	nd	nd
tert-Butylbenzene	1.0	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd	nd	nd	nd	nd
sec-Butylbenzene	1.0	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd	nd	nd	nd	nd
Isopropyltoluene	1.0	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd	nd	nd	nd	nd
n-Butylbenzene	1.0	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd	nd	nd	nd	nd
1,2,4-Trichlorolbenzene	2.0	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	5.0	nd	nd	nd	nd	nd
Naphthalene	5.0	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	5.0	nd	nd	nd	nd	nd
Surrogate Recovery						
Dibromofluoromethane		99.3	97.3	110	120	133
1,2-Dichloroethane-d4		73.1	72.1	93.5	101	129
Toluene-d8		114	111	108	115	119
4-Bromofluorobenzene		102	88.5	92.2	100	109

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

* INSTRUMENT DETECTION LIMIT
ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%
ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Gasoline (NWTPH-Gx) in Water

Sample Number	Date Analyzed	Surrogate Recovery (%)	Gasoline (ug/l)
Method Blank	2/18/09	90	nd
B1	2/18/09	98	nd
B2	2/18/09	88	nd
B2 Dup	2/18/09	94	nd
B3	2/18/09	67	nd
B4	2/18/09	112	nd
B5	2/18/09	90	nd
B6	2/18/09	71	nd
B8	2/18/09	101	nd
B9	2/18/09	111	nd
B10	2/18/09	86	nd
B11	2/18/09	85	nd
Practical Quantitation Limit			100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Trifluorotoluene): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Mineral Oil (mg/kg)	Oil (mg/kg)
Method Blank	2/20/09	111	nd	nd	nd
TP2-1' A	2/20/09	104	nd	nd	nd
TP2-1' B	2/20/09	88	nd	nd	nd
TP1-Surf A	2/20/09	110	nd	nd	nd
TP1-1' B	2/20/09	98	nd	nd	nd
TP4-1'	2/20/09	85	nd	nd	nd
TP5-0.5A	2/20/09	79	nd	nd	nd
TP5-Surf B	2/20/09	105	nd	nd	340
TP6-0.5A	2/20/09	int	nd	nd	61900
TP6-Surf B	2/20/09	110	nd	nd	nd
TP6-Surf B Dup	2/20/09	109	nd	nd	nd
TP8-3'	2/20/09	110	nd	nd	nd
TP9-Surf A	2/20/09	110	nd	nd	320
TP9-1' B	2/20/09	95	nd	nd	nd
TP9- Surf B	2/20/09	90	nd	nd	nd
TP10-1'	2/20/09	105	nd	nd	nd
TP11-1'	2/20/09	85	nd	nd	nd
TP11-1' Dup	2/20/09	135	nd	nd	nd
TP3-1'A	2/20/09	83	nd	nd	nd
TP3-Surf B	2/20/09	100	nd	nd	500
Practical Quantitation Limit			25	40	40

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Athanasius

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Mineral Oil (mg/kg)	Oil (mg/kg)
Method Blank	2/25/09	110	nd	nd	nd
TP1-Surf A	2/25/09	int	nd	nd	66700
TP1-Surf A Dup	2/25/09	int	nd	nd	65700
TP1-1' B	2/25/09	90	nd	nd	140
TP6-0.5'A	2/25/09	int	nd	nd	38600
TP6-4.0' A	2/25/09	90	nd	nd	nd
TP6-4.0' A Dup	2/25/09	89	nd	nd	nd
Practical Quantitation Limit			25	40	40

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Athanasius

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Water

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (ug/l)	Mineral Oil (ug/l)	Oil (ug/l)
Method Blank	2/19/09	105	nd	nd	nd
B1	2/19/09	100	nd	nd	nd
B2	2/19/09	65	nd	nd	nd
B3	2/19/09	101	nd	nd	nd
B4	2/19/09	106	nd	nd	nd
B5	2/19/09	116	nd	nd	nd
B6	2/19/09	81	nd	nd	nd
B8	2/20/09	100	nd	nd	nd
B9	2/20/09	72	nd	nd	nd
B9 DUP	2/20/09	110	nd	nd	nd
B10	2/20/09	113	nd	nd	nd
B11	2/20/09	118	nd	nd	nd
Practical Quantitation Limit			200	400	400

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Gautam Dutta

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Gasoline (NWTPH-Gx) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Gasoline (mg/kg)
Method Blank	2/18/09	90	nd
TP1-Surf A	2/18/09	70	nd
TP1-1' B	2/18/09	71	nd
TP2-1' A	2/18/09	68	nd
TP2-1' B	2/18/09	69	nd
TP4-1'	2/18/09	79	nd
TP4-1' Dup	2/18/09	87	nd
Practical Quantitation Limit			10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Trifluorotoluene): 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Gasoline (NWTPH-Gx) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Gasoline (mg/kg)
Method Blank	2/19/09	121	nd
TP3-1'A	2/19/09	118	nd
TP3-Surf B	2/19/09	100	nd
TP5-0.5A	2/19/09	105	nd
TP5-Surf B	2/19/09	112	nd
TP6-0.5A	2/19/09	91	nd
TP6-Surf B	2/20/09	82	nd
TP8-3'	2/20/09	89	nd
TP9-Surf A	2/20/09	104	nd
TP9-1' B	2/19/09	110	nd
TP9- Surf B	2/19/09	93	nd
TP10-1'	2/19/09	75	nd
TP11-1'	2/20/09	87	nd
TP11-1' DUP	2/20/09	66	nd
Practical Quantitation Limit			10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Trifluorotoluene): 65% TO 135%

ANALYSES PERFORMED BY: Gautam Dutta

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Arsenic (mg/kg)	Mercury (mg/kg)
Method Blank	2/20/09	nd	nd	nd	nd	nd
TP1-Surf A	2/20/09	25	nd	nd	nd	nd
TP1-1' B	2/20/09	26	nd	nd	nd	nd
TP2-1' A	2/20/09	nd	nd	nd	nd	nd
TP2-1' B	2/20/09	nd	nd	nd	nd	nd
TP4-1'	2/20/09	nd	nd	nd	nd	nd
TP3-1'A	2/20/09	nd	nd	nd	nd	nd
TP3-Surf B	2/20/09	230	nd	nd	nd	nd
TP5-0.5A	2/20/09	nd	nd	nd	nd	nd
TP5-Surf B	2/20/09	27	nd	nd	nd	nd
TP6-0.5A	2/20/09	8	nd	nd	nd	nd
TP6-Surf B	2/20/09	nd	nd	nd	nd	nd
TP8-3'	2/20/09	nd	nd	nd	nd	nd
TP9-Surf A	2/20/09	25	nd	nd	nd	nd
TP9-1' B	2/20/09	6	nd	nd	nd	nd
TP9- Surf B	2/20/09	nd	nd	nd	nd	nd
TP10-1'	2/20/09	nd	nd	nd	nd	nd
TP11-1'	2/20/09	nd	nd	nd	nd	nd
TP11-1' DUP	2/20/09	nd	nd	nd	nd	nd
Practical Quantitation Limit		5.0	1.0	5.0	5.0	0.5

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (% Recovery)	Cadmium (% Recovery)	Chromium (% Recovery)	Arsenic (% Recovery)	Mercury (% Recovery)
LCS	2/20/09	101%	122%	101%	114%	88%
TP11-1' MS	2/20/09	127%	97%	73%	101%	93%
TP11-1' MSD	2/20/09	125%	98%	80%	98%	93%
RPD	2/20/09	2%	1%	9%	3%	0%
Practical Quantitation Limit		5.0	1.0	5.0	5.0	0.5

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Copper (mg/kg)	Zinc (mg/kg)	Nickel (mg/kg)
Method Blank	2/24/09	nd	nd	nd
TP1-Surf A	2/24/09	7	16	19
TP1-1' B	2/24/09	11	23	115 -
TP2-1' A	2/24/09	nd	nd	21
TP2-1' B	2/24/09	nd	nd	25
TP3-1'A	2/24/09	nd	nd	20
TP3-Surf B	2/24/09	20	19	32
TP5-0.5A	2/24/09	nd	11	27
TP5-Surf B	2/24/09	nd	9	nd
TP8-3'	2/24/09	nd	nd	13
TP9-Surf A	2/24/09	5	17	30
TP9-1' B	2/24/09	nd	nd	35
TP9- Surf B	2/24/09	nd	13	40
TP11-1'	2/24/09	nd	nd	23
TP11-1' DUP	2/24/09	nd	nd	--
Practical Quantitation Limit		5.0	1.0	5.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt & Zoe (DAL)

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Copper (% Recovery)	Zinc (% Recovery)	Nickel (% Recovery)
LCS	2/24/09	96%	71%	98%
TP11-1' MS	2/24/09	92%	108%	106%
TP11-1' MSD	2/24/09	93%	114%	106%
RPD	2/24/09	1%	5%	0%
Practical Quantitation Limit		5.0	1.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt & Zoe (DAL)

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Arsenic (mg/kg)	Mercury (mg/kg)
Method Blank	3/1/09	nd	nd	nd	nd	nd
B8-2.5'	3/1/09	nd	nd	nd	nd	nd
B9-8.5'	3/1/09	nd	nd	nd	nd	nd
B10-4.5'	3/1/09	nd	nd	nd	nd	nd
B10-4.5' Dup	3/1/09	nd	nd	nd	nd	nd
Practical Quantitation Limit		5.0	1.0	5.0	5.0	0.5

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (% Recovery)	Cadmium (% Recovery)	Chromium (% Recovery)	Arsenic (% Recovery)	Mercury (% Recovery)
LCS	3/1/09	105%	96%	100%	100%	90%
B10-4.5' MS	3/1/09	102%	85%	int	109%	94%
B10-4.5' MSD	3/1/09	114%	80%	int	99%	86%
RPD	3/1/09	11%	6%		10%	9%
Practical Quantitation Limit		5.0	1.0	5.0	5.0	0.5

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Copper (mg/kg)	Zinc (mg/kg)	Nickel (mg/kg)
Method Blank	3/1/09	nd	nd	nd
B8-2.5'	3/1/09	nd	3.1	12
B9-8.5'	3/1/09	nd	10.2	20
B10-4.5'	3/1/09	nd	3.4	20
B10-4.5' Dup	3/1/09	nd	3.2	--
Practical Quantitation Limit		5.0	1.0	5.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt & Spectra Labs

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

QA/QC for Metals in Soil by EPA Method 7000 Series

Sample Number	Date Analyzed	Copper (% Recovery)	Zinc (% Recovery)	Nickel (% Recovery)
LCS	3/1/09	105%	100%	--
B10-4.5' MS	3/1/09	int	int	--
B10-4.5' MSD	3/1/09	int	int	--
RPD	3/1/09			
Practical Quantitation Limit		5.0	1.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt & Spectra Labs

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Metals in Water by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (ug/l)	Cadmium (ug/l)	Chromium (ug/l)	Arsenic (ug/l)	Mercury (ug/l)
Method Blank	2/20/09	nd	nd	nd	nd	nd
B1	2/20/09	nd	nd	nd	nd	nd
B2	2/20/09	nd	nd	nd	nd	nd
B3	2/20/09	nd	nd	nd	nd	nd
B4	2/20/09	nd	nd	nd	nd	nd
B5	2/20/09	11	nd	nd	nd	nd
B6	2/20/09	nd	nd	nd	nd	nd
B8	2/20/09	25	nd	30	14	nd
B9	2/20/09	113	2.0	34	32	nd
B10	2/20/09	72	nd	54	7.0	nd
B11	2/20/09	nd	nd	nd	nd	nd
B11 Dup	2/20/09	nd	nd	nd	nd	nd
Practical Quantitation Limit		5.0	1.0	10.0	3.0	1.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

QA/QC for Metals in Water by EPA Method 7000 Series

Sample Number	Date Analyzed	Lead (% Recovery)	Cadmium (% Recovery)	Chromium (% Recovery)	Arsenic (% Recovery)	Mercury (% Recovery)
LCS	2/20/09	100%	97%	127%	94%	93%
B11 MS	2/20/09	106%	108%	128%	86%	83%
B11 MSD	2/20/09	101%	107%	127%	81%	97%
RPD	2/20/09	4.8	0.9	0.8	6.0	16
Practical Quantitation Limit		5.0	1.0	10.0	3.0	1.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

Analyses of Metals in Water by EPA Method 7000 Series

Sample Number	Date Analyzed	Copper (ug/l)	Zinc (ug/l)	Nickel (ug/l)
Method Blank	2/24/09	nd	nd	nd
B1	2/24/09	nd	nd	nd
B2	2/24/09	nd	nd	nd
B3	2/24/09	nd	nd	nd
B5	2/24/09	22	nd	nd
B8	2/24/09	196	113	nd
B9	2/24/09	1400	560	807
B11	2/24/09	nd	nd	239
B11 Dup	2/24/09	nd	nd	--
Practical Quantitation Limit		5.0	10.0	50.0

"nd" Indicates not detected at the listed detection limits.

ANALYSES PERFORMED BY: Sherry Chilcutt & Zoe (DAL)

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

HAVENS PROPERTY PROJECT
Tumwater, Washington
Robinson, Noble & Saltbush, Inc.
Libby Env.Project No.L090218-10

QA/QC for Metals in Water by EPA Method 7000 Series

Sample Number	Date Analyzed	Copper (% Recovery)	Zinc (% Recovery)	Nickel (% Recovery)
LCS	2/24/09	99%	99%	98%
B11 MS	2/24/09	118%	102%	104%
B11 MSD	2/24/09	111%	100%	98%
RPD	2/24/09	6.1	2.0	5.9
Practical Quantitation Limit		5.0	10.0	5.0

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt & Zoe (DAL)

SPECTRA Laboratories
2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

03/10/2009

Libby Environmental, LLC
4139 Libby Rd NE
Olympia, WA 98506
Attn: Sherry Chilcutt

Project: Havens
Date Received: 02/27/2009
Spectra Project: 2009020488

Client ID	Spectra #	Analyte	Result	Units	Method	Matrix	Date Sampled
B10	1	Hexavalent Chromium	< 0.01	mg/L	SM3500-CR-D	Water	02/18/2009

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
as sej

SPECTRA Laboratories

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

03/06/2009

Libby Environmental, LLC
4139 Libby Rd NE
Olympia, WA 98506
Attn: Sherry Chilcutt

Project: Havens
Sample Matrix: Water
Date Sampled: 02/18/2009
Date Received: 02/19/2009
Spectra Project: 2009020318

Client ID	Spectra #	Analyte	Result	Units	Method
B1	1	Ethylene Glycol	<10	mg/L	GC-FID
B1	1	Propylene Glycol	<10	mg/L	GC-FID
B3	2	Ethylene Glycol	<10	mg/L	GC-FID
B3	2	Propylene Glycol	<10	mg/L	GC-FID
B8	3	Ethylene Glycol	<10	mg/L	GC-FID
B8	3	Propylene Glycol	<10	mg/L	GC-FID
B9	4	Ethylene Glycol	<10	mg/L	GC-FID
B9	4	Propylene Glycol	<10	mg/L	GC-FID

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a7/sgh

2930 Westlake Ave N Suite 100
Seattle, WA 98109
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Libby Environmental
Attn: Sherry Chilcutt
4139 Libby Road NE
Olympia, WA 98506

RE: Haven
Fremont Project No: CHM090225-2

February 27th, 2009

Sherry:

Enclosed are the analytical results for the ***Haven*** soil samples received by Fremont Analytical on Wednesday February 25th, 2009.

The samples were received in good condition – in the proper containers (4 oz soil jars), properly sealed, labeled and within holding time. The samples were extracted, analyzed and then stored in a refrigeration unit at the USEPA-recommended temperature of 4°C ± 2°C. There were no sample receipt or sample analysis issues to report.

Examination of these samples was conducted for the presence of the following:

- ***PCB's (Polychlorinated Biphenyls) in Soil by EPA 8082***

This application was performed under Washington State Department of Ecology accreditation parameters. All appropriate Quality Assurance / Quality Control method parameters have been applied.

Please contact the laboratory if you should have any questions about the report.

Thank you for using Fremont Analytical!

Sincerely,

Michael Dee
Sr. Chemist / Principal

mikedee@fremontanalytical.com

Fremont Analytical

2930 Westlake Ave. N., Suite 100
Seattle, WA 98109

T: 206.352.3790
F: 206.352.7178
Email: info@fremontanalytical.com

Analysis of PCB's (Polychlorinated Biphenyls) in Soil by EPA 8082

Project: Haven
Client: Libby Environmental
Client Project #: N/A
Lab Project #: CHM090225-2

EPA 8082 (mg/kg)	MRL	Method Blank	LCS	TP 5-Surface B	Duplicate TP 5-Surface B	TP 6-0.5A
Date Extracted		2/26/09	2/26/09	2/26/09	2/26/09	2/26/09
Date Analyzed		2/26/09	2/26/09	2/26/09	2/26/09	2/26/09
Matrix				Soil	Soil	Soil
Aroclor 1016	0.5	nd		nd	nd	nd
Aroclor 1221	0.5	nd		nd	nd	nd
Aroclor 1232	0.5	nd		nd	nd	nd
Aroclor 1242	0.5	nd		nd	nd	nd
Aroclor 1248	0.5	nd		nd	nd	nd
Aroclor 1254	0.5	nd		nd	nd	nd
Aroclor 1260	0.5	nd	96%	nd	nd	**0.9**
Surrogate Recovery						
Surr 1 (TCMX)		100%	97%	88%	81%	70%
Surr 2 (DCBP)		99%	112%	105%	82%	108%

"nd" Indicates no detection at the listed reporting limits
"int" Indicates that interference prevents determination
"C" Indicates coelution with Sample Peaks
"J" Indicates estimated value
"MRL" Indicates Method Reporting Limit
"LCS" Indicates Laboratory Control Sample
"MS" Indicates Matrix Spike
"MSD" Indicates Matrix Spike Duplicate
"RPD" Indicates Relative Percent Difference

Acceptable RPD is determined to be less than 30%
Acceptable Recovery Limits:
Surrogates = 65% to 135%
LCS, LCSD, MS, MSD = 65% to 135%
Surrogates Concentration = 25 µg/L
Spike Concentration = 1.0 mg/kg

Fremont Analytical

2930 Westlake Ave. N., Suite 100
Seattle, WA 98109

T: 206.352.3790
F: 206.352.7178
Email: info@fremontanalytical.com

Analysis of PCB's (Polychlorinated Biphenyls) in Soil by EPA 8082

Project: Haven
Client: Libby Environmental
Client Project #: N/A
Lab Project #: CHM090225-2

EPA 8082 (mg/kg)	MRL	TP 9-Surface A	TP 3-Surface B	MS TP 5-Surface B
Date Extracted		2/26/09	2/26/09	2/26/09
Date Analyzed		2/26/09	2/26/09	2/26/09
Matrix		Soil	Soil	Soil
Aroclor 1016	0.5	nd	nd	
Aroclor 1221	0.5	nd	nd	
Aroclor 1232	0.5	nd	nd	
Aroclor 1242	0.5	nd	nd	
Aroclor 1248	0.5	nd	nd	
Aroclor 1254	0.5	nd	nd	
Aroclor 1260	0.5	nd	nd	99%
Surrogate Recovery				
Surr 1 (TCMX)		79%	85%	81%
Surr 2 (DCBP)		82%	88%	91%

"nd" Indicates no detection at the listed reporting limi
"int" Indicates that interference prevents determinati
"C" Indicates coelution with Sample Peaks
"J" Indicates estimated value
"MRL" Indicates Method Reporting Limit
"LCS" Indicates Laboratory Control Sample
"MS" Indicates Matrix Spike
"MSD" Indicates Matrix Spike Duplicate
"RPD" Indicates Relative Percent Difference

Acceptable RPD is determined to be less than 30%
Acceptable Recovery Limits:
Surrogates = 65% to 135%
LCS, LCSD, MS, MSD = 65% to 135%
Surrogates Concentration = 25 µg/L
Spike Concentration = 1.0 mg/kg

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph 360-352-2110
Fax 360-352-4154

Client: Libby Env. (See above)
Address:
Phone: Fax:
Client Project #

Date: 2/24/09 Page: 1 of 1
Project Manager: Sharon Chadwell
Project Name: HAVEN
Location:
Collector: Date of Collection: 2/18

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext	PAH 8270	PCB's 8082	MTCA 5 Metals			Field Note/# Containers
1 TP 5 Surface B		11:15	Soil	4oz jar									X					
2 TP 6 -0.5A		11:45	↓	↓									↓					
3 TP 9 - Surface A		13:35																
4 TP 3 Surface B		2:22																
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		

Relinquished by	Date / Time	Received by	Date / Time
[signature]	2/24/09 4pm	[signature]	2/24/09 4pm
[signature]		[signature]	2/25/09 1230
Relinquished by	Date / Time	Received by	Date / Time

Sample Receipt:

Good Condition?	Y
Cold?	Ice
Seals Intact?	Y
Total Number of Containers	4

Remarks: Std

TAT 24HR 48HR 5-Day

Distribution: White - Lab, Yellow - File, Pink - Originator

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 2-18-09 Page: 1 of ~~2~~ 3 4 SCC

Client: RNS
Project Manager: R Reber
Address:
Project Name: Havens Project
Phone: 253-475-7711 Fax: 253-472-5846
Location: Tumwater Washington
Client Project #
Collector: S Malon R Reber Date of Collection: 2-18-09

#	Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	Ni Zn Cu		Glycols	Field Note/# Containers
1	TP2-1'A	1'	0845	S	4oz VOA			X			X		X			X	X			2
2	TP2-4 A	4'	0845	S	4oz VOA			X			X		X							2 Hold
3	~~B2-1.5~~ B2		0848	W	Amber VOA			X			X		X			X	X		~~X~~	6
4	~~B2~~ B2-7'	7'	09000	S	VOA			X			X									2 Hold
5	TP2-1'B	1'	0900	S	4oz VOA			X			X		X			X	X			2
6	TP2-4'B	4'	0900	S																2
7	B4		0937	W	Amber poly VOA			X			X		X			X				6
8	B4-5.8'	5.8	0936	S	4oz VOA			X			X		X			X				2 Hold
9	TP1-surf A	surf	0925	S	"			X			X		X			X	X			2
10	TP1-3.5 A	3.5	0940	S	"			X			X		X			X	X			2 Hold
11	TP1-11'A	11	0945	S	"			X			X		X			X	X			2 Hold
12	TP1-4B	4'	1010		"															2 Hold
13	TP1-1B	1'	1005	S	"			X			X		X			X	X			2
14	B1-7.5	7.5	1006	S	"			X			X		X			X	X			2 Hold
15	B1		1006	W	Amber poly VOA			X			X		X			X	X		X	6
16	TP4-1'	1'	1030	S	4oz VOA			X			X		X			X				2
17	TP4-4.5	4.5	1025	S	"															2 Hold
18	B5-6.5'	6.5	1033	S	"			X			X		X			X	X			2 Hold

Relinquished by:	Date / Time	Received by	Date / Time
[signature]	2/18/08 3:00	[signature]	2-18-09
Relinquished by:	Date / Time	Received by	Date / Time
Relinquished by:	Date / Time	Received by	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:

TAT 24HR 48HR 5-Day

Distribution White - Lab, Yellow - File, Pink - Originator

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 2-18-09 Page: 2 of 4 SDG

Client: RNS
Project Manager: R Barber
Address:
Project Name: Homes Project
Phone: Fax:
Location: Tumwater, Washington
Client Project #
Collector: S Malone, R Barber Date of Collection: 2-18-09

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	As, Zn, Cu	6 Metals	Field Note/# Containers
1 B5		1033	W	pol, VOA			X			X	X			X	X			6
2 B6		1058	W	"			X			X	X			X				6
3 B6-5.5		1058	S	4oz VOA			X			X	X			X				2 Hold
4 TP5-0.5A		1045	S	"			X			X	X			X	X			2
5 TP5-5.5A		1050	S	"			X											2 Hold
6 TP5-surf B		1115	S	"			X			X	X			X	X			2
7 TP5-1B		1120	S	"			B											2 Hold
8 TP5-4B		1125	S	"														2 Hold
9 B11		1127	W	pol, VOA			X			X	X			X	X			6
10 B11-5.0		1127	S	4oz VOA			X			X	X			X	X			2 Hold
11 TP6-0.5A		1145	S	"			X			X	X			X				2
12 TP6-4.0A		1150	S	"														2 Hold
13 B8-2.5		1154	S	"			X			X	X			X	X			2 Hold
14 B8		1157	W	pol, VOA			X			X	X			X	X		X	6
15 TP6-surf B		1200	S	4oz VOA			X			X	X			X				2
16 TP6-4' B		1205	S	"														2 Hold
17 TP8-3'		1250	S	"			X			X	X			X	X			2
18 TP8-8'		1255	S	"														2 Hold

Relinquished by:	Date / Time	Received by	Date / Time
	2/18/09 3:00		2-18-09
Relinquished by:	Date / Time	Received by	Date / Time
Relinquished by:	Date / Time	Received by	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:

TAT 24HR 48HR 5-Day

Distribution White - Lab, Yellow - File, Pink - Originator

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Client: RNS

Address:

Phone: Fax:

Client Project #

Date: 2-18-09

Page: 3 of 3 4

Project Manager: R Baker

Project Name: Havens Project

Location: Tumwater, Washington

Collector: S Malon R Baker Date of Collection: 2-18-09

	Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals	N, Zn, Cu	Cl, cols	Field Note/# Containers
1	B10-4.5		1309	S	4oz VOA														2 Hold
2	B_10		1311	W	Poly, Amber, VOA			X			X	X			X				~~2~~
3	B9		1338	W	"			X			X	X			X	X		X	7
4	B9 8.5		1336	S	4oz VOA														2 Hold
5	TP9-Surf A		1335	S	"			X			X	X			X	X			2
6	TP9-4' A		1340	S	"														2 Hold
7	TP9-Surf B		1355	S	"			X			X	X			X	X			2
8	TP9-1' B		1400	S	"			X			X	X			X	X			2
9	TP9-4' B		1405	S	"														2 Hold
10	TP10-1		1320	S	"			X			X	X			X				2
11	TP10-5'		1325	S	"														2 Hold
12	TP3-1A		1410	S	"			X			X	X			X	X			2
13	TP3-4'A		1415	S	"														2 Hold
14	B3-7.5		1403	S	"														2 Hold
15	B3		1409	S	"			X			X	X			X	X		X	7
16	TP11-1'		1445	S	"			X			X	X			X				2
17	TP11-4'		1450	S															2 Hold
18	TP3 Surf B		1425	S				X			X	X			X	X			2

Run ☆

Mislabeled as a Soil? Actually water? (S)

Relinquished by:	Date / Time	Received by	Date / Time
	2/18/09 3:00		2-18-01
Relinquished by:	Date / Time	Received by	Date / Time
Relinquished by:	Date / Time	Received by	Date / Time

Sample Receipt:	
Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:

TAT 24HR 48HR 5-Day

Distribution White - Lab, Yellow - File, Pink - Originator

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Client: RNS

Address:

Phone: Fax:

Client Project #

Date: 2-18-06

Page: 4 of 4

Project Manager: R Bieber

Project Name: Travers

Location:

Collector: R Bieber S Mathne Date of Collection: 2-18-06

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals			Field Note/# Containers
1 TP3-4'B		1435	S	4oz VOA														2 Hold.
2 TP3-1'B		1430	S	4oz VOA														2 Hold
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		

Relinquished by:	Date / Time	Received by	Date / Time
	2/18/09 5:00		2-18-09
Relinquished by:	Date / Time	Received by	Date / Time
Relinquished by:	Date / Time	Received by	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:

TAT 24HR 48HR 5-Day

Distribution White - Lab, Yellow - File, Pink - Originator