

EnviroSound Consulting Inc.

Site Soil Investigation

Project Information

Project Name: Seitz Property
Project Location: Silverdale, Washington
Client: Mr. Andrew Seitz
Project #: ESC15-E010
Date: November 30, 2015

Company Information

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SITE SOIL INVESTIGATION

**SEITZ PROPERTY
BRIAN LANE
SILVERDALE, WASHINGTON**

**Prepared for:
MR. ANDREW SEITZ
7415 STIBGEN ROAD NW
OLYMPIA, WA. 98502**

**Prepared by:
ENVIRO SOUND CONSULTING, INC.
3388 BYRON STREET STE 200
SILVERDALE, WA 98383**

**Project No. ESC015-E010
November 30, 2015**



November 30, 2015

Project No. ESC15-E010

Mr. Andrew Seitz
7415 Stibgen Road NW
Olympia, WA 98502

RE: Site Soil Investigation
Seitz Property
Brian Lane
Silverdale, Washington

Dear Mr. Seitz:

EnviroSound Consulting, Inc., (EnviroSound) has completed a Site Soil Investigation Report for the Seitz Property site, summarized in a report dated November 30, 2015. We appreciate the opportunity to serve your environmental needs.

Surface and subsurface conditions were explored in areas where debris piles were located and where a former drum storage area was located. A total of seven hand borings were sampled by EnviroSound. Soil samples collected from the former drum storage area on the northern portion of the site indicate that the upper one foot of soils have elevated PAH levels which exceed current cleanup guidelines. On October 15, 2015 you excavated and disposed of approximately 5.5 cubic yards or 1.45 tons of soil in this area at the Waste Management transfer station. Two confirmation samples collected in the bottom of the excavation on October 19, 2015 were non-detect for PAHs.

Soil samples collected from the two debris pile locations were non detect for the analyzed hydrocarbons. A soil sample collected from the former single-family residence area was also non-detect for the analyzed hydrocarbons.

Each of the surface soil samples collected from the subject property had elevated levels of arsenic ranging from 31.0 parts per million (ppm) to 42 ppm. Arsenic results were non-detect during a previous sampling event performed by the Kitsap County Health Department.

No groundwater samples were taken as part of this study. No surface water was visible on the property at the time of site visits.

It is recommended that you apply with the Department of Ecology (Ecology) Voluntary Cleanup Program with the submittal of this report as part of the protocol of obtaining a No Further Action (NFA) letter from Ecology.

If you have any questions, or if we can be of further assistance, please do not hesitate to contact our office.

Respectfully Submitted,
EnviroSound Consulting, Inc.

Shawn E. Williams, L.G.
Senior Environmental Geologist

TABLE OF CONTENTS
Project No. ESC15-E010

EXECUTIVE SUMMARY 1
SECTION 1.0 INTRODUCTION..... 2
SECTION 2.0 SITE DESCRIPTION..... 2
SECTION 4.0 SCOPE OF SERVICES..... 5
SECTION 5.0 FIELD AND LABORATORY PROCEDURES 5
 5.1 HAND BORINGS 6
 5.2 LABORATORY ANALYTICAL METHODS 7
SECTION 6.0 SITE HYDROGEOLOGICAL CHARACTERISTICS..... 7
SECTION 7.0 ENVIRONMENTAL MONITORING RESULTS 7
SECTION 8.0 DISCUSSION/CONCLUSIONS13
SECTION 9.0 RECOMMENDATIONS13
SECTION 10.0 LIMITATIONS14
REFERNCES15

Photographs

Photos 1-8(following text)

Figures

Figure 1. Vicinity Map..... (following photos)
Figure 2. Sample Location Map (24x36 End of Report) (following Fig. 1)
Figure 3. Historical Sampling Plan Map..... (following Fig. 2)
Figure 4. Well Locations (following Fig. 3)

Appendices

Previous ReportsA
Hand Boring Logs.....B
Certified Analytical Results.....C
Soil Weight TicketsD



SITE SOIL INVESTIGATION

**SEITZ PROPERTY
BRIAN LANE
SILVERDALE, WASHINGTON
TAX PARCELS 082501-4-025-2001 AND 082501-4-026-2000**

EXECUTIVE SUMMARY

EnviroSound Consulting, Inc. (EnviroSound) conducted a Site Soil Investigation of the Seitz property, located in Silverdale, Washington, property account numbers 082501-4-025-2001 and 082501-4-026-2000. The site is currently undeveloped, with a large portion of the site forested. The area of the study had recently been cleared of a thick undergrowth of scotchbroom and blackberry bushes, with forested areas beyond the cleared areas. The surrounding area consists of scattered single-family residences. Various environmental studies have been conducted on the site in the past (from 1997 through 2005). In 2005, a soil sample identified elevated levels of polycyclic aromatic hydrocarbons (PAHs) above Model Toxics Control Act (MTCA) Method A cleanup levels and one groundwater sample with an elevated level of arsenic, although the Landsworth Creek Water System contains historic arsenic levels in the same range. The site was listed on the Confirmed and Suspected Contaminated Sites List (CSCSL) and given a site ranking of 2, where a 1 represents the highest relative risk and 5 the lowest.

This investigation was developed to focus on the potential impact from the following:

- Possible contaminated soil from a drum storage area.
- Possible contaminated soil from debris pile areas located on site.
- Possible contaminated soil near the former single-family residence.

A total of seven hand borings were placed in the former drum storage area and debris pile areas to collect surface and subsurface soil samples. A total of fifteen soil samples at surface level and depths of 1.0-foot and 1.5-feet below ground surface were collected using a stainless steel hand auger. Soil samples were analyzed for Volatile Organic Compounds (VOCs) and the Resource Conservation and Recovery Act (RCRA) 8 Metals. Elevated levels of arsenic were found in each of the hand boring samples. Elevated levels of benzo(a)pyrene above Method A Unrestricted Land Use cleanup levels were found in hand boring ESC-DSA-S2-SL-03. Elevated levels of Arsenic ranging from 31.0 ppm to 42.0 ppm was detected in each of the soil samples submitted for Total Metals analysis with sampling limited to surface samples.

On October 15, 2015 Mr. Andy Seitz the property owner excavated and disposed of approximately 5.5 cubic yards or 1.45 tons of soil in the former drum storage area, at the Waste Management transfer station. The excavated area was approximately 10 feet by 10 feet x 1.5 feet in depth. Two confirmation samples collected in the bottom of the excavation on October 19, 2015 were non-detect for PAHs.

Arsenic ?

No groundwater samples were collected as part of this study. There was no standing water on the site at the time of the site visit and no visible evidence of "ponding areas" on the subject property.

Based on the analytical results with respect to historical data and sampling events conducted on the site, EnviroSound offers the following conclusions:

- There was remnants of soil contamination in the former drum storage area. Laboratory test results indicate that the contamination appears to be limited to the upper 1.0-foot of soil, with elevated levels of PAHs at 0.5 feet and 1.0 feet in depth. The impacted area was excavated on October 15, 2015 by the property owner and disposed of at the Waste Management transfer station.
- Soil sampling performed in the two debris pile areas and former single-family residence area were non-detect for the hydrocarbon analyses performed.
- **Arsenic was detected in each of the soil samples with levels above current cleanup criteria.** No elevated levels of Arsenic had been detected in previous sampling performed by the Kitsap County Department of Health. Silver, selenium and cadmium were below detection levels and lead, chromium, mercury and barium were below current cleanup criteria levels.
- Documented contamination has been limited to the north parcel (Parcel A) with no documented soil contamination or drum storage on the south parcel (Parcel B).

It is recommended that the property be entered into the Voluntary Cleanup Program with the Department of Ecology with the submittal of this report.

SECTION 1.0 INTRODUCTION

This report presents the results of a Site Soil Investigation conducted by EnviroSound on the referenced property. EnviroSound was initially contracted by Mr. Andrew Seitz to conduct a Site Soil Investigation, per proposal ESC015-PE011, dated May 19, 2015. The results of the investigation are described in this report.

EnviroSound has developed the scope of work contained herein based on research performed on the site and also by a review of a Site Assessment Report completed by E&E (Ecology and Environment, Inc.) in 1997 and a ground-penetrating radar and magnetic survey completed by Geo Recon International on August 16 and 17, 2005. Remnants of previously sampled debris piles were visibly located on the site as well as the former drum storage area, which was located with remnants of wood lathes and security tape. For comparison purposes, photos from the 2005 sampling event are shown adjacent to 2015 sampling photos at the end of this report. EnviroSound sample locations were located by AES Surveying of Silverdale, Washington utilizing hand held GPS instruments.

SECTION 2.0 SITE DESCRIPTION

The subject property is composed of two parcels that are bounded by undeveloped vacant property to the north and south, and single-family residences to the west and east (Figure 1). The two parcels occupy a total of 9.87 acres, with County Assessor's parcel numbers: 082501-4-025-2001 (South Parcel, Parcel B) & 082501-4-026-2000 (North Parcel, Parcel A). The site gently slopes to the east from an elevation of approximately 230 feet to 175 feet.

Terrestrial Ecological Evaluation: The site vicinity has been developed since the 1920's with scattered single-family residences. The closest surface water to the site is Clear Creek, approximately 1100 feet east, northeast of the subject site. Clear Creek is a salmon stream that flows approximately two miles into Dyes Inlet of Puget Sound and flows year round. There is historic data regarding the Landsworth Creek Water System with elevated levels of arsenic. The

nearest well is located approximately 500 feet from the site and was sampled in 2005. The majority of the site is forested with some cleared areas. There was no evidence of standing water on the subject property at the time of the site visits.

SECTION 3.0 SITE HISTORY

A single-family residential structure was moved onto the site around 1985 with secondary buildings such as a chicken coop and work shop in place. Garbage debris piles were placed on the site by the former owners. In addition, the former owners purchased surplus material from PSNS (such as the 55-gallon drums previously located on the site) and stored the material on the subject property.

In 1985 and 1986, a neighboring property owner, Beth Anderson, contacted the Kitsap County Health District alleging that illegal dumping (burial of drums and cylinders) was being conducted on site. At the time of this phone call, the property was in the ownership of Mr. Ron Deno. A Health Department inspector was unable to substantiate the claims of drum or cylinder burial and the excavation which was occurring on the property was associated with the single-family residence being moved onto the property.

The property was purchased in 1997 by Mr. Andrew K. Seitz and Mervyn F. Killoran purchased the property from the Internal Revenue Service (IRS) with the intention to develop the property. On August 11, 1997, a notice from the EPA was sent to Mr. Seitz regarding work assessment planned on the property due to allegations of buried drums/illegal dumping located on site.

On August 13, and 14, 1997, the Superfund Technical Assessment and Response Team (START) conducted a site investigation on the subject property, which included, brush and debris removal, geophysical survey, trenching in alleged areas of dumping, and a sample collection from one drum found on site. At the end of this site investigation, the *Silverdale Dump Site Removal Site Assessment Trip Report* was released and revealed no evidence of buried drums or cylinders.

On March 18, 2005, a site investigation was conducted as a result of an anonymous phone call that was placed to Kitsap County Health District regarding the subject site. During this site investigation evidence of land clearing activity associated with the excavation of a basement for a house was present.

On March 21, 2005 communication between Mr. Seitz and Mr. Steven J. Brown of The Kitsap Health District was initiated. Mr. Brown informed Mr. Seitz that during the development of his property, any solid waste found or generated on the site is the owner's responsibility to dispose of properly.

On March 25, 2005 Mr. Seitz contacted The Kitsap Health District regarding eighteen 55- gallon drums that he found on his property during some land clearing activities.

On March 29, 2005, a neighboring property owner contacted the Washington State Department of Ecology (Ecology) to report the existing drums found on site during the March 25, 2005 site investigation and alleged that there were additional buried drums are on site. As per procedure, Ecology referred the report to The Kitsap Health District for further investigation although the health district was already in the process of performing an investigation. On April 12, 2005, Ecology asked The Kitsap Health District to perform a Site Hazard Assessment (SHA) at the subject site.

On April 18, 2005, Mr. Seitz had a meeting with The Kitsap Health District to inform them of the 1997 investigation that was conducted on his property and turned over a copy of the *Silverdale Dump Site Removal Site Assessment* dated 1997, addressed to the Seattle offices of the EPA. At this time a copy of this report was submitted to Ecology.

On April 19, 2005, the site was listed on the Washington State Department of Ecology's Confirmed and Suspected Contaminated Sites (CSCS) based on confirmed releases of total petroleum hydrocarbons to soil and suspected

releases of halogenated organic compounds, metals, and non-halogenated solvents to soil.

On May 2, 2005, Ecology contacted The Kitsap Health District to inform them that another SHA was to be conducted at the site. The SHA was scheduled for the month of August. During this time, Mr. Seitz had removed the existing house and chicken coop on the property in June, and had the 18 drums, which were found on site by Mr. Seitz and The Kitsap Health District in March, properly removed and disposed of by Clean Harbors on August 1 and 11. The invoice, provided by Clean Harbors, can be viewed in Appendix A

On August 16 and 17, 2005, Geo-Recon out of Seattle Washington performed an electromagnetic and ground-penetrating radar survey to determine if any buried drums are located on site. No evidence of buried drums was discovered. A copy of the Geo-Recon Report *Buried Drum Search Seitz Property-Parcel 1* can be viewed in Appendix A.

On August 26, 2005, a letter from Ecology was sent to Mr. Seitz informing him that another SHA would be performed on the subject site under the Model Toxics Control Act.

On August 31, 2005, a site visit was conducted by Health District Staff to familiarize one of the staff with the site.

On November 16, 2005, soil sampling and groundwater sampling was conducted by The Kitsap Health District to determine if there were any impacts to the site. The results of this sampling program are attached in Appendix A.

On February 2, 2006, Ecology published the ranking of this site in the Special Issue of the Site Register. The Department of Ecology determined the site to be a 2, where a 1 represents the highest relative risk and 5 the lowest.

The purpose of this Phase II ESA was to evaluate the onsite soil conditions and to determine remediation options and associated costs for the subject property.

PREVIOUS INVESTIGATIONS

EnviroSound has prepared the following synopsis of previous investigations on the subject property with information provided by the current property owner, Mr. Andy Seitz. Figure 2 shows previous sample locations on the site as well as recent EnviroSound sample locations. In addition, photos of previous sampling events are included, paired with recent sampling efforts at the end of the report.

The Superfund Technical Assessment and Response Team (START) conducted a removal assessment at the site from August 13 through August 14, 1997. During this site investigation, an EM-31 (electromagnetic induction instrument) geophysical survey and trenching was performed in order to determine any presence of buried drums and/or cylinders on site. An EM-31 geophysical survey includes using a terrain conductivity (TC) meter, which is used in an effort to locate detectable changes in the soils which might indicate the presence of a backfilled excavation, piping, or possible dry well. The EM-31 uses voltage readings to develop contour maps that identify anomalous areas that may represent buried structures. Work conducted by the START field team included brush and debris removal, trenching, and sampling of a 55 gallon drum for hazardous categorization. The geophysical survey and trenching revealed no evidence of buried drums and cylinders. Exploratory trenches were excavated up to 100 feet in length, 2.0 feet wide, and up to 11.0 feet in depth. The 55-gallon drum found on site was determined to be a diesel or heating fuel type. The drum was removed and disposed of properly by Spencer Environmental.

A Site Hazard Assessment was performed on March 18, 2005 by The Kitsap County Health District due to a complaint filed by a neighboring property owner. At the time of the site visit the investigator observed several piles of debris, trash, and rubbish. The current owner of the property (Mr. Seitz) stated that he was planning on developing the property and removing the solid waste debris.

A Site Hazard Assessment performed on March 28, 2005 by The Kitsap County Health District was conducted on the site because of the eighteen 55-gallon drums found on site by Mr. Seitz on March 25, 2015. The SHA report states that the drums were sitting on the surface, and four had signs of leakage or spillage. According to the investigator the drums were full or close to full with only four drums labeled with "Roybond Primer".

A Site Hazard Assessment was performed on August 16, and 17, 2005 under MTCA. During this investigation, a ground-penetrating radar and magnetic survey was conducted by Geo-Recon International to locate areas of possible buried drums on site. The survey was conducted due to a complaint by a neighboring property owner stating that the sites surveyed in the STAR 1997 report were done in the wrong area even though the neighbor had initially directed the area to be excavated, and that hazardous waste was still buried at the site. The results of the Geo-Recon International report states that no evidence of buried drums were found at the site.

Soil and water sampling was performed by The Kitsap Health District on November 16, 2005. The sampling consisted of two water samples from existing drinking water wells down gradient from the site and five soils samples from cleared areas of the site. The results from the soil samples indicated that no soil samples showed MTCA Method A exceedances for metals, and one soil sample contained carcinogenic polycyclic aromatic hydrocarbons (PAHs) above their MTCA levels. It is important to note that the method blank contained one phthalate compound, indicating likely contamination at the lab. The water samples exceeded Maximum Contaminant Levels (MCLs) for the Washington State Drinking Water Standards for arsenic. It is important to note that the Health District does not believe that the arsenic result is associated with contamination at the Seitz property due to historic arsenic results in the same range found in the Landsworth Creek Water system.

SECTION 4.0 SCOPE OF SERVICES

The scope of services consisted of: 1) Collection of four surface soil samples and four samples collected each from one foot in depth, in the former drum storage area, 2) collection of one surface soil sample and one soil sample each from one foot in depth at the two debris pile areas and former residential structure previously sampled by Kitsap County Health District, 3) chemical analysis of twelve soil samples for semi-volatile organic compounds (SVOCs) which includes PAHs, and up to five soil samples for RCRA 8 metals analysis, and 4) prepare a report documenting the field investigation and findings with the proposed remedial options.

EnviroSound developed a sampling plan based on previous soil sampling locations and laboratory results conducted by Kitsap County Health District during their Site Hazard Assessment in 2005. AES Surveying of Silverdale, Washington located the EnviroSound hand boring locations utilizing hand held GPS instruments.

SECTION 5.0 FIELD AND LABORATORY PROCEDURES

Field activities for this ESA occurred on June 25, 2015 and July 27, 2015. Eight hand borings were placed on the north eastern portion of the property, with four hand borings in and adjacent to the drum storage area which was originally discovered in 2005 (Figures 2 and 3). Hand boring (HB-1) was placed on the northeastern portion of the site where an existing debris pile was located. Hand boring (HB-2) was placed in the north-central portion of the site where an existing debris pile was located. Hand boring (HB-3) was placed in the central area of the site where the former single-family residence was located. The residence had been demolished since May 2005.

On June 25, 2015 and July 27, 2015, soil samples were collected using individual stainless steel spoons, a steel bowl, and laboratory-certified four-ounce glass jars. Individual samples were placed into the steel bowl, consolidated and then placed in the glass jars, leaving minimal headspace, labeled, placed into a ziplock bag, and then placed into a cooler maintained at four degrees Celsius with ice-substitute. The steel bowl and digging tools were cleaned with

soapy water and rinsed with distilled water between each sample location. The iced cooler was delivered to Twiss Laboratories in Poulsbo for analysis using proper chain-of-custody protocols. The locations of the seven sample locations can be seen on the Figure 3 sampling locations map.

During the hand borings, each soil sample collected was viewed for visual evidence of petroleum staining or odors. No visible staining or odors were detected in any of the soil samples. All of the samples collected were selected for analysis of various chemical parameters, which were targeted to evaluate potential environmental impacts. Soil samples were analyzed for SVOCs and for RCRA 8 metals.

5.1 HAND BORINGS

A stainless steel hand auger was used to collect surface and sub-surface soil samples on June 25, 2015 and July 27, 2015. The hand auger was used to collect a surface sample and then was advanced to a depth of 1.0 feet to collect sub-surface samples at each sampling location. Prior to each sample collection, the top several inches of the soil in the auger was discarded due to the auger scraping material from the sides of the boring hole while being extracted. The samples were collected from minimally disturbed soils. Sample locations S1 through S7 were completed on June 25, 2015 and a soil sample was collected at 1.5 feet in depth from hand boring ESC-DSA-S1 on July 27, 2015, following initial laboratory analysis.

SOIL SAMPLING

The surface soil samples collected contained roots/rootlets and surface vegetation. The sub-surface soil samples were loose to medium dense, tan to dark brown, gravelly, silty-sand. Hand boring logs can be found in Appendix B.

During this investigation, no staining or significant odors were observed or recorded on the soil samples collected on June 25 2015 or July 27, 2015. Soil samples were collected using individual stainless steel spoons and four-ounce glass jars which were laboratory-certified.

DRUM STORAGE AREA

Hand boring locations ESC-DSA-S1 and ESC-DSA-S2 were sampled within the former drum storage area. Hand boring ESC-DSA-S3 was located approximately 7.0 feet northeast of the drum storage area and hand boring ESC-DSA-S4 was located approximately 5.0 feet east of the drum storage area (Figure 3).

DEBRIS PILES

Hand boring ESC-DP-1 was collected from debris pile-1, located east of the drum storage area. Hand boring ESC-DP-2 was collected from debris pile-2 located south of the drum storage area, as shown on Figure 3. The extent of the debris pile areas were marked by wooden laths and taped off. Debris pile-1 had minimal trash and debris and was mostly clear of any brush. ESC-DP-1 was excavated approximately at the center of the debris pile. There was a significant amount of trash (plastic containers, trash bags, plastic wrappers) present at debris pile-2. Hand boring ESC-DP-2 was excavated within the debris pile boundary, on the south side.

FORMER SINGLE-FAMILY RESIDENCE AREA

Hand boring ESC-SP-5 was excavated in the area of the former single-family residence on the east side of the area. The sample was collected in a partially cleared area with scotchbroom and small trees.

5.2 LABORATORY ANALYTICAL METHODS

The submitted soil samples were analyzed by Twiss Laboratories, a SPECTRA Laboratories Company, for the following:

- SVOCs using EPA Method 8270D
- RCRA 8 metals analysis using EPA Method 3050B/6010C and EPA Method 7471B for Mercury

SECTION 6.0 SITE HYDROGEOLOGICAL CHARACTERISTICS

The subject site is located at an elevation of about 230 feet above mean sea level. The soil conditions encountered in the seven hand borings generally consisted of loose to medium dense, gravelly, silty sand, which is consistent with soil maps for the area. Previous excavations on the subject property encountered Glacial Till at a depth of approximately 3.0 feet below the existing surface.

The depth to groundwater at the subject site is estimated to be between 50 to 100 feet below grade, based on a review of local well logs. The nearest well to the subject site is a private well approximately 500 feet to the east. This well and two wells south of the subject property were sampled during the 2005 SHA by the Kitsap Health Department. Well locations are shown on Figure 4. The nearest stream to the subject property is approximately 1,100 feet to the east-northeast and is Clear Creek. There was no surface water on the subject site at the time of the site visits and there was no visible evidence of "ponding areas" on the site. Exploratory test pits associated with previous studies excavated to 9.0 feet in depth did not encounter groundwater.

SECTION 7.0 ENVIRONMENTAL MONITORING RESULTS

The laboratory analytical results for the MTCA Metals are listed in Table 1. MTCA Method A Cleanup Levels for Unrestricted Land Uses and MTCA Method A Cleanup Levels for Unrestricted Land Uses are shown for comparison with the analytical results. Those results shown as "less than" (<) are below detection limits, with the detection limit value following the "<". The Certified Analytical Laboratory Reports are found in Appendix B.

**Table 1. MTCA Metals Results
Seitz Property
Silverdale, Washington**

Sample Location	Sample ID	Sample Depth (feet)	Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Arsenic (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Barium (mg/kg)
ESC15-DSA-S1	SL-01	Surface	1.75	<0.4	19.2	35.1	0.04	<1.4	<0.2	82.8
ESC15-DSA-S2	SL-03	Surface	<0.4	<0.4	25.1	42.1	<0.03	<1.4	<0.2	81.0
ESC15-DS1-S5	SL-09	Surface	3.45	<0.4	21.2	31.3	0.04	<1.4	<0.2	79.8
ESC15-DP2-S6	SL-11	Surface	5.21	<0.4	21.9	34.0	0.05	<1.4	<0.2	60.8
ESC15-SP5-S7	SL-13	Surface	<0.4	<0.4	24.3	33.8	0.03	<1.4	<0.2	72.2
MTCA Standards *			250	2	2000	20	2	400*	400*	16000*

Notes: Concentrations listed in milligrams per kilogram (mg/kg).

Bold = Exceeds cleanup levels.

* Method A (unrestricted land use) Cleanup level

Arsenic was detected in each of the samples with levels above current cleanup criteria. Silver, selenium and cadmium were below detection levels and lead, chromium, mercury and barium were below current cleanup criteria levels.

The laboratory analytical results for the semi-volatile organic compounds (SVOCs) in the soil samples are listed in Table 2. MTCA Method A Cleanup Levels for Unrestricted Land Uses are shown for comparison with the analytical results. Those results shown as “less than” (<) are below detection limits, with the detection limit value following the “<”.

Phenol	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	-
Pyrene	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	-
Pyridine	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	-
Tetrachlorophenol	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	-
Bis(2-Chloroethoxy) Methane	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	-
Bis(2-Ethylhexyl)Phthalate	<0.083	0.234	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	-
Bis(2-chloroisopropyl)Ether	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	-
Total PAHs			0.738								-

Notes:

Concentrations listed in milligrams per kilogram (mg/kg)

† Standards are MTCA Method A Soil Cleanup Levels from Chapter 173-200 WAC.

Carcinogenic PAH results are totaled together, and a toxicity equivalency factor applied. If the results exceed 0.1mg/kg the sample is greater than MTCA Method A Cleanup Levels for PAHs.

Bold = Exceeds cleanup levels.

*MTCA Method A cleanup Level.

(-) = No method A Cleanup Level.

Elevated levels, above Method A Cleanup levels for PAHs were detected in a surface soil sample from hand boring ESC-DSA-S2. Both hand borings were located in the former drum storage area. Hand boring soil samples collected outside and downgradient of the former drum storage area were below detection levels for PAH's.

The laboratory analytical results for the semi-volatile organic compounds (SVOCs) in the two confirmation soil samples for the former drum storage area are listed in Table 3. MTCA Method A Cleanup Levels for Unrestricted Land Uses are shown for comparison with the analytical results. Those results shown as "less than" (<) are below detection limits, with the detection limit value following the "<".

TABLE 3 SEMIVOLATILE ORGANIC COMPOUND RESULTS
Confirmation Samples-Former Drum Storage Area
Silverdale, WA

Sample Location		
ESC15-DSA-S5-1.5'		ESC15-DSA-S6-1.5'
Depth	1.5'	1.5'
PID	0.0 PPM	0.0 PPM
	1-Methylnaphthalene = <0.033 2-Methylnaphthalene = <0.033 Acenaphthene = <0.033 Acenaphthylene = <0.033 Anthracene = <0.033 Benzo(a)Anthracene = <0.033 Benzo(a)Pyrene = <0.033 Benzo(b)Fluoranthene = <0.033 Benzo(ghi)Perylene = <0.033 Benzo(k)Fluoranthene = <0.033 Chrysene = <0.033 Dibenz(a,h)Anthracene = <0.033 Fluoranthene = <0.033 Ideno(1,2,3-cd)Pyrene = <0.033 Naphthalene = <0.033 Phenanthrene = <0.033 Pyrene = <0.033	1-Methylnaphthalene = <0.033 2-Methylnaphthalene = <0.033 Acenaphthene = <0.033 Acenaphthylene = <0.033 Anthracene = <0.033 Benzo(a)Anthracene = <0.033 Benzo(a)Pyrene = <0.033 Benzo(b)Fluoranthene = <0.033 Benzo(ghi)Perylene = <0.033 Benzo(k)Fluoranthene = <0.033 Chrysene = <0.033 Dibenz(a,h)Anthracene = <0.033 Fluoranthene = <0.033 Ideno(1,2,3-cd)Pyrene = <0.033 Naphthalene = <0.033 Phenanthrene = <0.033 Pyrene = <0.033
	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	1-Methylnaphthalene = (-) 2-Methylnaphthalene = (-) Acenaphthene = (-) Acenaphthylene = (-) Anthracene = (-) Benzo(a)Anthracene = (-) Benzo(a)Pyrene = (-) Benzo(b)Fluoranthene = (-) Benzo(ghi)Perylene = (-) Benzo(k)Fluoranthene = (-) Chrysene = (-) Dibenz(a,h)Anthracene = (-) Fluoranthene = (-) Ideno(1,2,3-cd)Pyrene = (-) Naphthalene = (-) Phenanthrene = (-) Pyrene = (-)

Notes:

Concentrations listed in milligrams per kilogram (mg/kg)

[†] Standards are MTCA Method A Soil Cleanup Levels from Chapter 173-200 WAC.

Carcinogenic PAH results are totaled together, and a toxicity equivalency factor applied. If the results exceed 0.1mg/kg the sample is greater than MTCA Method A Cleanup Levels for PAHs.

*MTCA Method A cleanup level.

(-) = No method A Cleanup Level.

Quality Assurance Review

A quality assurance (QA) review was conducted on the analytical data. A QA report is included with the laboratory data in Appendix C. All data were considered acceptable for use. None of the data were flagged with qualifiers.

SECTION 8.0 DISCUSSION/CONCLUSIONS

Based on the results of this assessment, The Geo-Recon International buried drum search, the Superfund Technical Assessment on the site, and Site Hazard Assessment performed by The Kitsap Health District, the following conclusions have been developed:

Two soil samples collected from the former drum storage area on the northern portion of the subject property had elevated levels of PAHs in the upper foot of soils. The contamination appeared to be limited to the specific area of the drum storage. EnviroSound sample results are similar to soil sample results from a 2005 SHA by the Kitsap Health District.

A soil sample collected from debris pile-1, located east of the drum storage area at a lower elevation, contained non-detectable concentrations of the target SVOC compounds. A soil sample collected from debris pile-2 located south of the drum storage area at a lower elevation also contained non-detectable concentrations of the target SVOC compounds. A soil sample collected from the former single-family residence area contained non-detectable concentrations of the target SVOC compounds. EnviroSound sample results are similar to soil sample results from a 2005 SHA by the Kitsap Health District.

Elevated levels of arsenic above the current cleanup guidelines were detected in each of the surface soil samples from the sampled areas.

On October 15, 2015 Mr. Andy Seitz the property owner excavated an approximately 10 foot by 10 foot x 1.5 foot in depth area in the former drum storage location. Approximately 5.5 cubic yards or 1.45 tons of soil was transported to the Waste Management transfer station for disposal. Two confirmation samples collected in the bottom of the excavation area were non-detect for PAH's, (Table 3).

SECTION 9.0 RECOMMENDATIONS

The subject site is currently listed with Ecology on the Confirmed and Suspected Contaminated Sites List (CSCSL) and has a site ranking of 2, where a 1 represents the highest relative risk and 5 the lowest. The property owner should apply for the Voluntary Cleanup Program with Ecology with the submittal of this Soil Investigation report.

Former Drum Storage Area

Laboratory sample results indicate that contaminated soils in the former drum storage area have been removed and no further action is required.

Debris Pile Areas

The soil sample result for the debris pile areas was non-detect for the laboratory analysis. No additional soil sampling appears to be necessary at this time. The debris piles should be removed and disposed of at a landfill facility.

Former Single-Family Residence

The soil sample result for the former single-family residence was non-detect, so no further action is recommended in this area. **No confirmed soil contamination or documented buried drums were detected on the south parcel (Parcel B).**

SECTION 10.0 LIMITATIONS

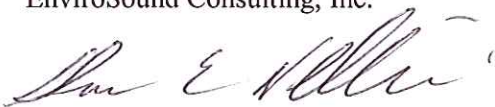
The findings in this report are based on the results of field and laboratory investigations, along with the interpretation of surface and subsurface conditions associated with our soil and water samples. The data presented should be considered representative of the time of our observations. Changes in the condition of the property can occur over time by both natural processes and human activities. Additionally, changes in government codes, regulations or laws may occur.

A laboratory certified by the State of Washington, Department of Ecology, performed the analytical testing. The results are accurate only to the degree of testing accuracy required, the representative nature of the samples obtained, and professional interpretation.

This report has been prepared for the exclusive use of the client noted on the cover page, and their agents for specific application to the subject site. Use or reliance upon this report by a third party is at their own risk. EnviroSound does not make any representation or warranty, express or implied, to such other parties as to the accuracy or completeness of this report or the suitability of its use by such other parties for any purpose whatever, known or unknown, to EnviroSound.

If you have any questions, or if we can be of further assistance, please do not hesitate to contact our office at (360) 698-5950.

Respectfully submitted,
EnviroSound Consulting, Inc.



Shawn E. Williams, L.G.
Senior Environmental Geologist



Shawn E. Williams

12-7-15

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U. S. D. A. Soil Survey of Kitsap County, dated 1980.



Photo 1: View looking northeast at former drum storage area (2015).



Photo 2: View looking northeast at drum storage area (2006).



Photo 3: Sampling location SL-2 shown, in the drum storage area (2015).



Photo 4: View looking north at former drum storage area (2006).



Photo 5: View looking southeast at a former debris pile-1 area. DP-1 sample location shown (2015).



Photo 6: View looking at a former debris pile area (2006).



Photo 7: View looking east at debris pile-2 (2015).



Photo 8: View looking at former debris pile-2 (2006).



Photo 7: View looking west at SP-5 and approximate location of former single family residence (2015).



Photo 8: View looking west at former single family residence (2006).

Appendix A

**Silverdale Dump Site
Removal Site Assessment
Trip Report
TDD: 97-06-0009**

Contract: 68-W6-0008
October 30, 1997

Region X

START

Superfund Technical Assessment and Response Team

Submitted To: Carl Kitz, On-Scene Coordinator
U.S. Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101

TRIP REPORT

DATE: October 30, 1997
TO: Carl Kitz, On-Scene Coordinator, EPA, Seattle, WA
FROM: Alexis Naiknimbalkar, E & E, Seattle, WA
SUBJ: Silverdale Dump Site
REF: TDD 97-05-0005

Place Visited:

Silverdale Dump Site
Section 8, Township 25, Range 1E, Lots 025, 026
Silverdale, Washington

Purpose of Trip:

Removal site assessment for alleged buried drums and cylinders.

Persons Responding:

Carl Kitz, On-Scene Coordinator
U.S. Environmental Protection Agency, Seattle, Washington
(206) 553-1671

Alexis Naiknimbalkar, Project Manager
Lyle Diediker, Geologist
Ecology and Environment, Inc., Seattle, Washington
Superfund Technical Assessment and Response Team (START)
(206) 624-9537

Brad Riedlinger, Equipment Operator
CET Environmental Services, Inc., Portland, Oregon
(503) 227-5892

*A Idea
File Boxes
For past
years -*



ecology and environment, inc.

International Specialists in the Environment

1500 First Interstate Center, 999 Third Avenue
Seattle, Washington 98104
Tel: (206) 624-9537, Fax: (206) 621-9832

Carl Kitz

October 30, 1997

Mr. Gary Sink
START X Project Officer
U.S. Environmental Protection Agency
1200 Sixth Avenue, Mail Stop ECL-116
Seattle, WA 98101

RE: Contract 68-W6-0008
TDD: 97-07-0003

Dear Gary:

Enclosed please find a copy of the report for the Silverdale Dump site in Silverdale, Washington. The START conducted a removal assessment at the site from August 13 through August 14, 1997. START conducted photo documentation (Appendix A), an EM-31 geophysical field survey and trenching to determine the presence of alleged buried drums and cylinders on site.

The EM-31 geophysical field survey and trenching revealed no evidence of buried drums and cylinders. One 55-gallon drum containing 30 gallons of diesel or heating fuel was discovered during brush and debris clearing activities. A sample was taken and hazardous categorization was conducted. The results were consistent with a diesel or heating fuel type product. The drum was recycled by Spencer Environmental of Sumner, Washington.

Sincerely,

Michael Boykin
START Project Leader

cc. Naiknimbalkar, Project Manager

MB/an

Enclosure

Persons Contacted:

Beth Anderson
3638 NW Bison Lane
Silverdale, Washington

360-698 0068

Date of Trip:

August 13 through August 14, 1997.

BACKGROUND

The U.S. Environmental Protection Agency (USEPA) has tasked the Ecology and Environment, Inc. (E&E) Superfund Technical Assessment and Response Team (START) to conduct a removal assessment at the Silverdale Dump site, located in Silverdale, Washington (Figure 1). The site is approximately 10 acres defined by platted property boundaries, including three abandoned building structures. One area on the property was apparently used to dispose of household garbage and another area contains building material debris. Both areas are situated at the north end of the property. Three drainage pits were found on site (Figure 2) that are likely related to drain-field percolation tests. Each are approximately 5-feet by 5-feet.

The current property owners Andrew K. Seitz and Mervyn F. Killoran, purchased the land from the Internal Revenue Service (IRS) and are planning to develop the property. Reportedly, 12 years ago, a neighboring property owner, Beth Anderson, had witnessed three flatbed trucks carrying drums and cylinders enter the site in the evening, and exit the next morning empty. The witness also observed excavations in the suspect area, large enough to allow a truck to enter. The County Health Department was contacted at the time of the incident by the property owner. A Health Department inspector was unable to substantiate the claim of drum or cylinder burial.

START ACTIONS

On August 13, 1997 the START subcontracted removal assistance including bulldozer and backhoe operations to CET Environmental Services. The initial work involved brush and debris removal from the site to provide a cleared area for the geophysical survey (Refer to Figure 2).

Prior to conducting the electromagnetic survey, the field team established a grid at 20 foot node spacings throughout the cleared area. The field team then conducted an electromagnetic conductivity geophysical investigation throughout the property using an EM-31 device. At each node, four readings were collected from two vertical dipole positions and two horizontal dipole positions. The orientations completed at each node were approximated to north-south and east-west positions. The depth range for the EM-31 is typically 6 meters in the horizontal dipole position and 3 meters in the vertical dipole position. Included with the readings is an in-phase reading that provides an indication of metallic objects. Appendix B provides contoured plots of the conductivity values and in-phase readings for the cleared area. A careful review of the conductivity readings indicates the lack of any disturbances or buried objects throughout the area investigated, except for metal debris on the ground surface (e.g., Bus Seats).

Based on information provided by the contact person, the EPA directed the field team to conduct trenching in areas where drum and cylinder burial is alleged to have occurred. Trench #1 was excavated approximately 100 foot long, 2 foot wide and 11 feet deep in the suspect area. The field geologist found a top layer of 2 to 3 feet of disturbed soil and a lower layer of 8 to 9 feet of undisturbed glacial till. START then directed CET to excavate Trench #2 in an area that was used for household garbage dumping and Trench #3 in an area that was used for building material dumping. The field geologist determined that the soil within the Trench #2 and Trench #3 areas was undisturbed similar to the horizons found in Trench #1. Upon completion of trenching operations, each trench was backfilled and compacted to original grade.

A sample was collected from the drum found during clearing activities. A chemist performed hazardous categorization of the unknown and the sample results were consistent with a diesel or heating oil type of product. The drum was recycled by Spencer Environmental of Sumner, Washington.

CONCLUSION

The geophysical survey and trenching activities revealed no evidence of buried drums and cylinders. The site observations did reveal that the buildings on the property were constructed or moved into large excavations and were never backfilled against foundations. These excavations may be related to those witnessed 12 years ago by Beth Anderson. The three buildings remain on site. The EPA has requested that a geophysical survey be conducted after buildings are removed during planned development by the new property owners. The property owners are responsible for notifying the EPA after buildings are removed.

Appendix A

PHOTOGRAPH IDENTIFICATION SHEET

Camera Serial #: 645493

Lens Type: 35mm

TDD #: 97-06-0009

Site Name: Silverdale Dump site

Photo No.	Date	By	Description
1-1	8/13/97	AN	55-gallon drum approximately 1/4 full found while clearing brush and debris from site. Facing East.
1-2	8/13/97	AN	Bulldozer clearing the site. Facing South.
1-3	8/13/97	LD	Bulldozer piling debris. Facing South.
1-4	8/13/97	LD	Scattered surface debris. Facing South.
1-5	8/13/97	LD	Unidentified object with US Government stenciled on it. Facing East.
1-6	8/13/97	LD	Unidentified object with US Government stenciled on it. Facing East.
1-7	8/13/97	LD	Unidentified object with US Government stenciled on it. Facing East.
1-8	8/13/97	LD	Abandoned house with propane tank (foreground). Facing Southwest.
1-9	8/13/97	LD	View of bulldozing progress. Facing South.
1-10	8/13/97	AN	View of cleared area. Facing South.
1-11	8/13/97	AN	START conducting electromagnetic survey using EM-31 device. Facing West.
1-12	8/13/97	LD	START conducting electromagnetic survey using EM-31 device. Facing West.
1-13	8/13/97	LD	START conducting electromagnetic survey using EM-31 device. Facing West.
1-14	8/14/97	AN	Trench #1. Facing South.
1-15	8/14/97	AN	Trench #1. Notice undisturbed glacial till. Facing South.
1-16	8/14/97	AN	Trench #1. Facing South.
1-17	8/14/97	AN	Trench #1. Facing South.
1-18	8/14/97	AN	Panoramic photo of Trench #1. Facing South.
1-19	8/14/97	LD	Panoramic photo of Trench #1. Facing South.
1-20	8/14/97	LD	Panoramic photo of Trench #1. Facing South.

PHOTOGRAPH IDENTIFICATION SHEET

Camera Serial #: 645493

TDD #: 97-06-0009

Lens Type: 35mm

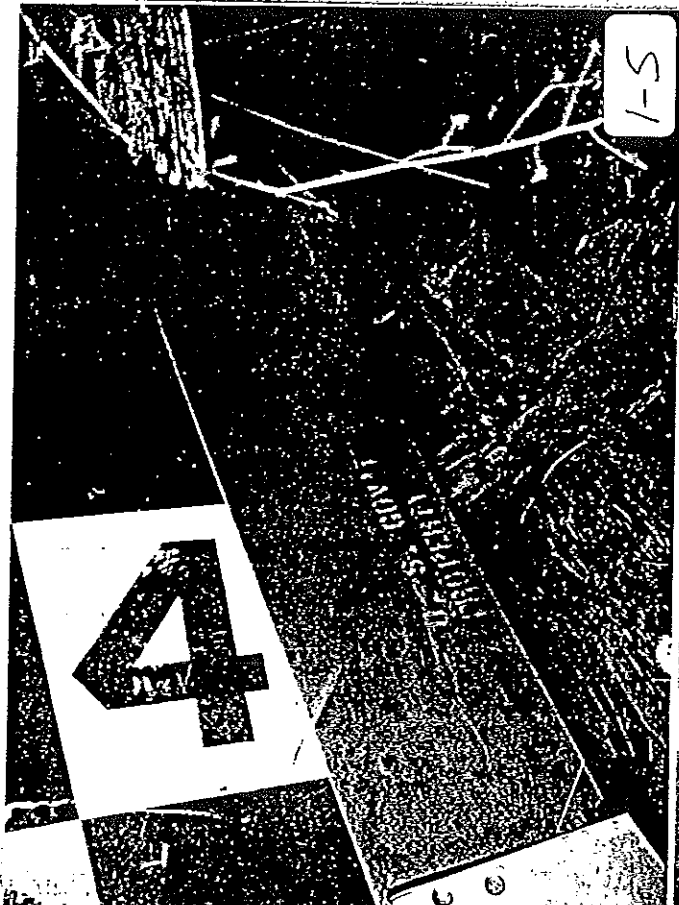
Site Name: Silverdale Dump site

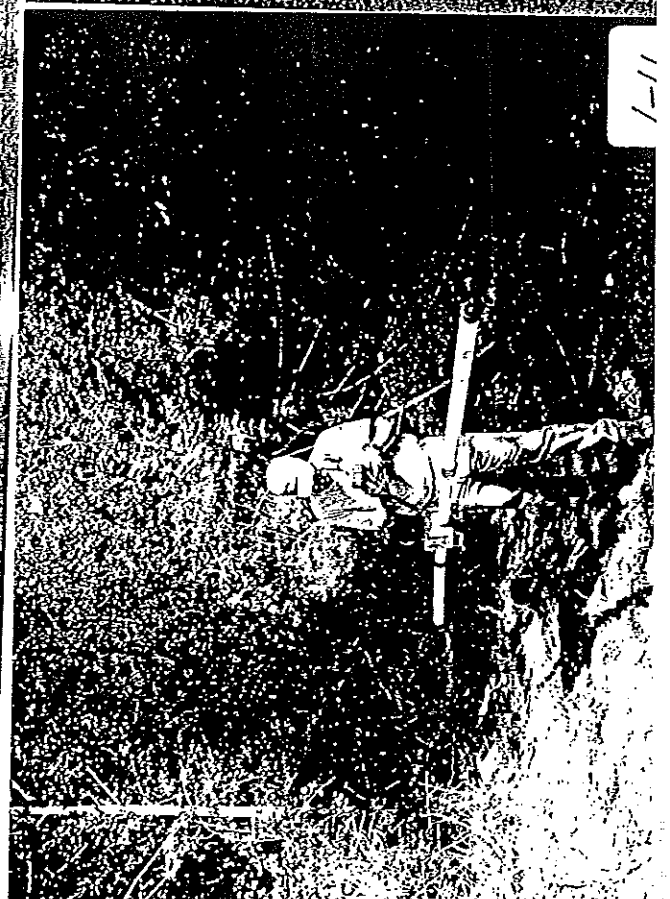
Photo No.	Date	By	Description
1-21	8/14/97	LD	Panoramic photo of Trench #1. Facing South.
1-22	8/14/97	LD	1'-2' topsoil over 8'-9' glacial till in Trench #1. Facing East.
1-23	8/14/97	LD	Trench #2 in garbage area. Facing East.
1-24	8/14/97	LD	Trench #2 in garbage area. Facing East.
2-1	8/14/97	AN	Trench #3. Facing East.
2-2	8/14/97	AN	Trench #3. Facing East.

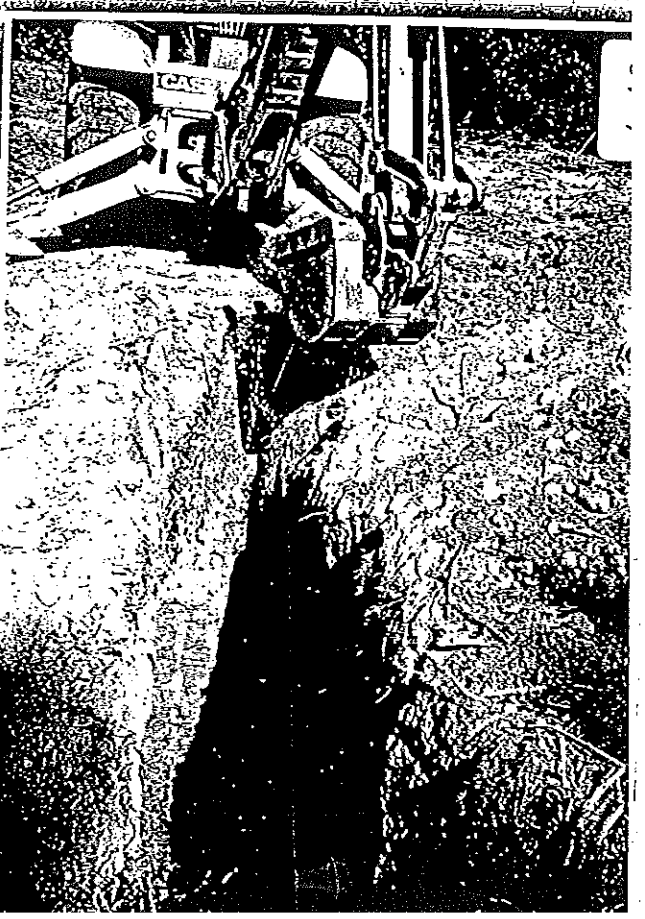
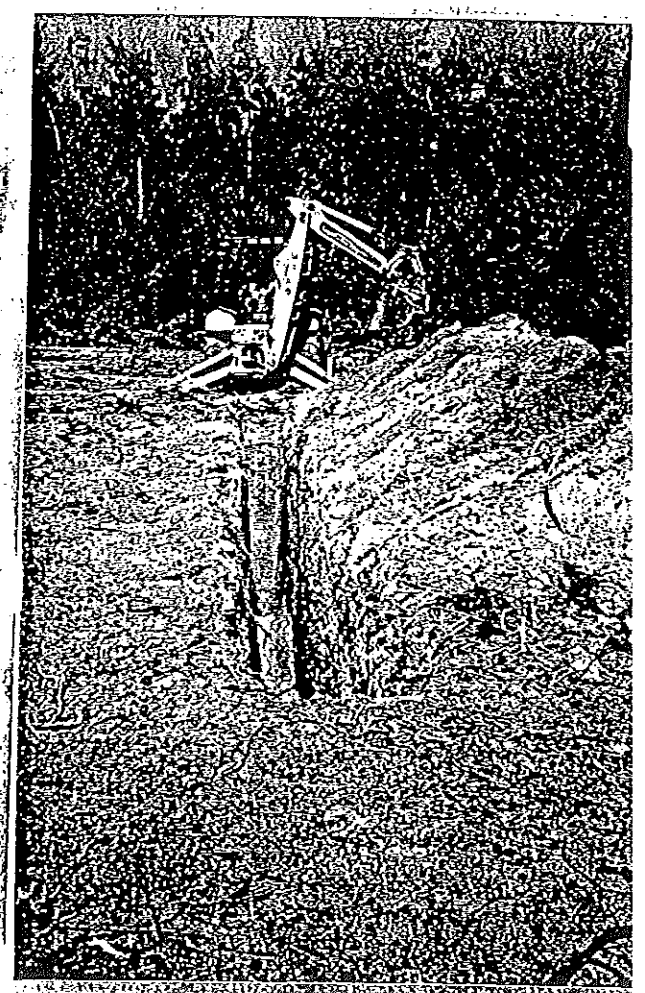
AN- Alexis Naiknimbalkar.

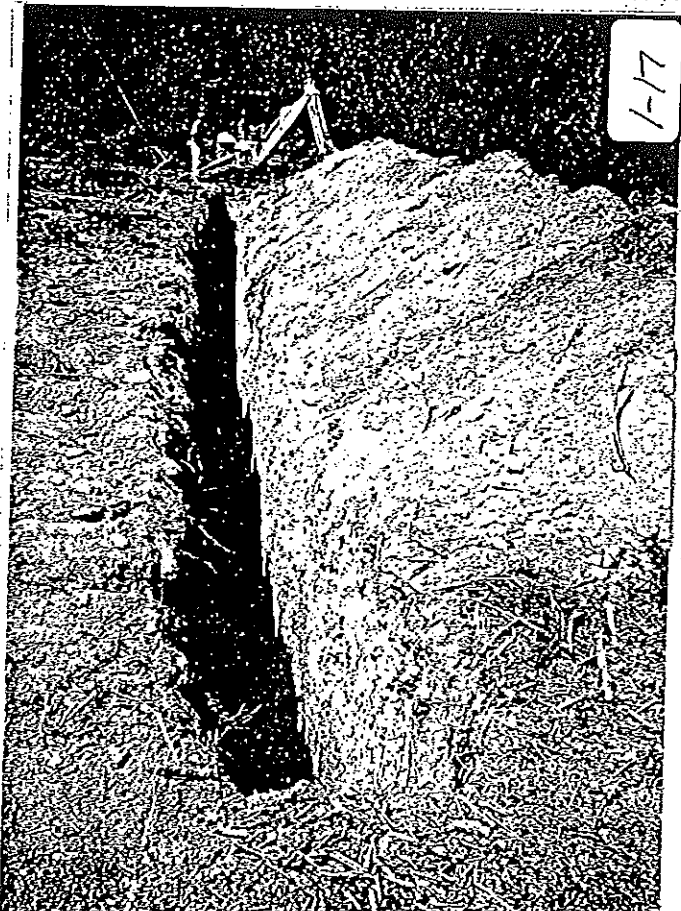
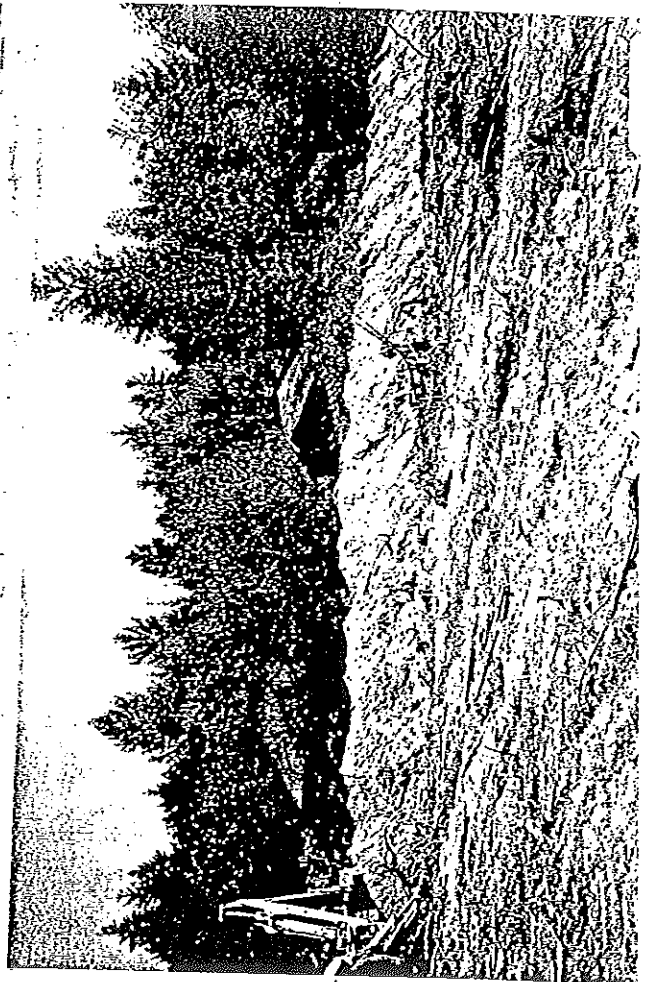
LD- Lyle Diediker

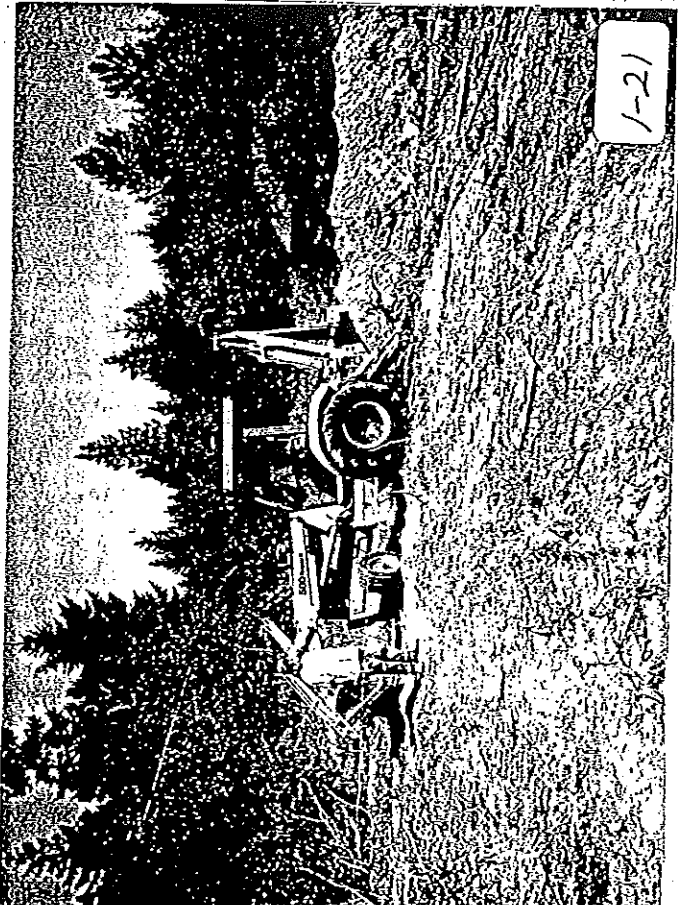
START- Superfund Technical Assessment and Response Team.

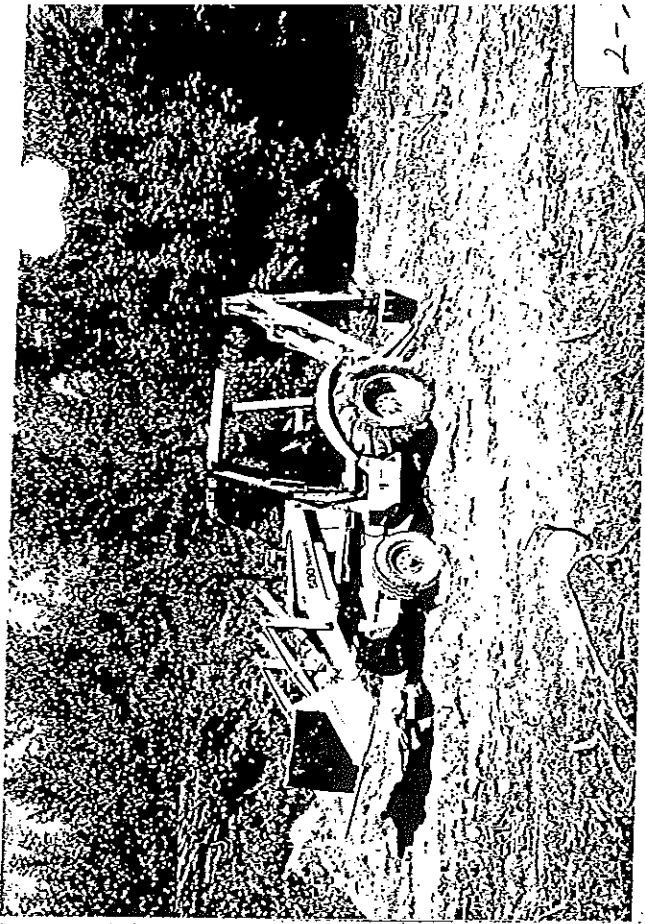






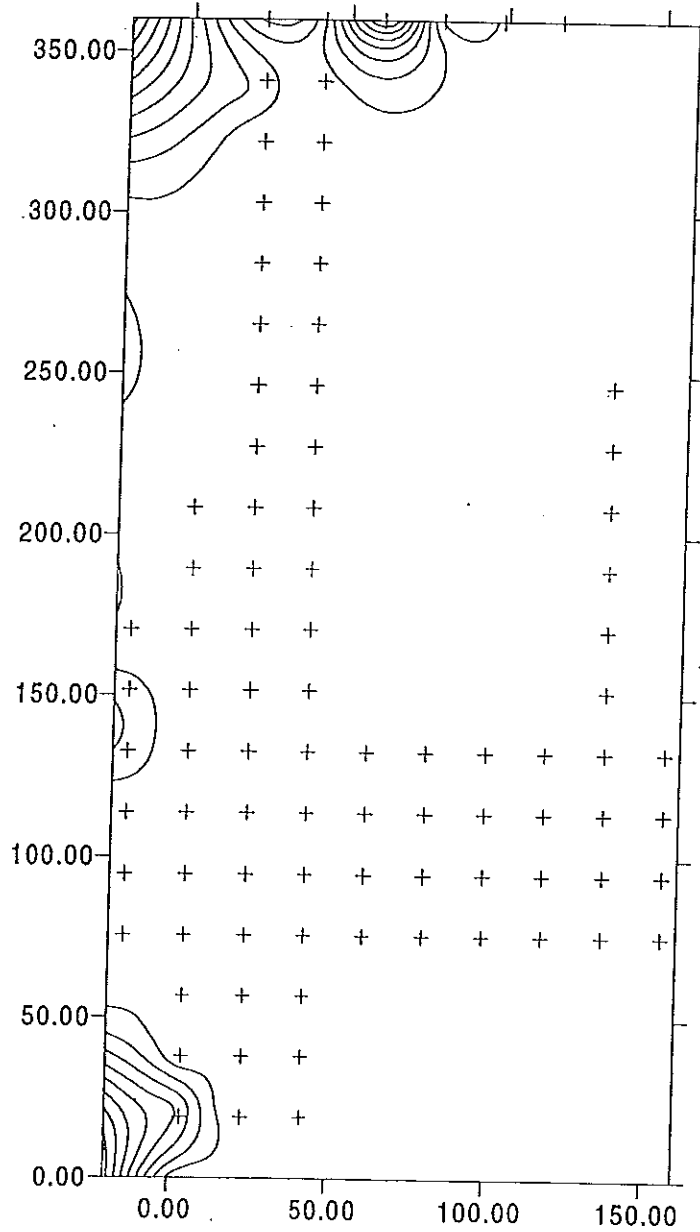




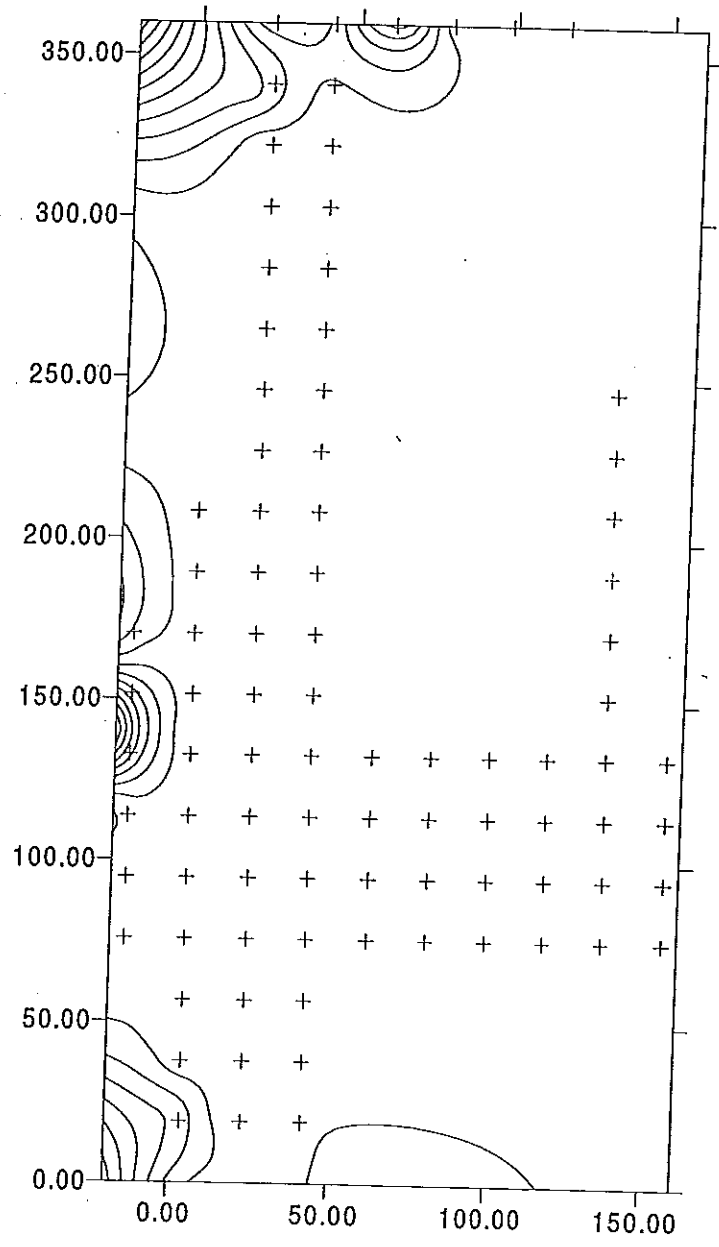


Appendix B

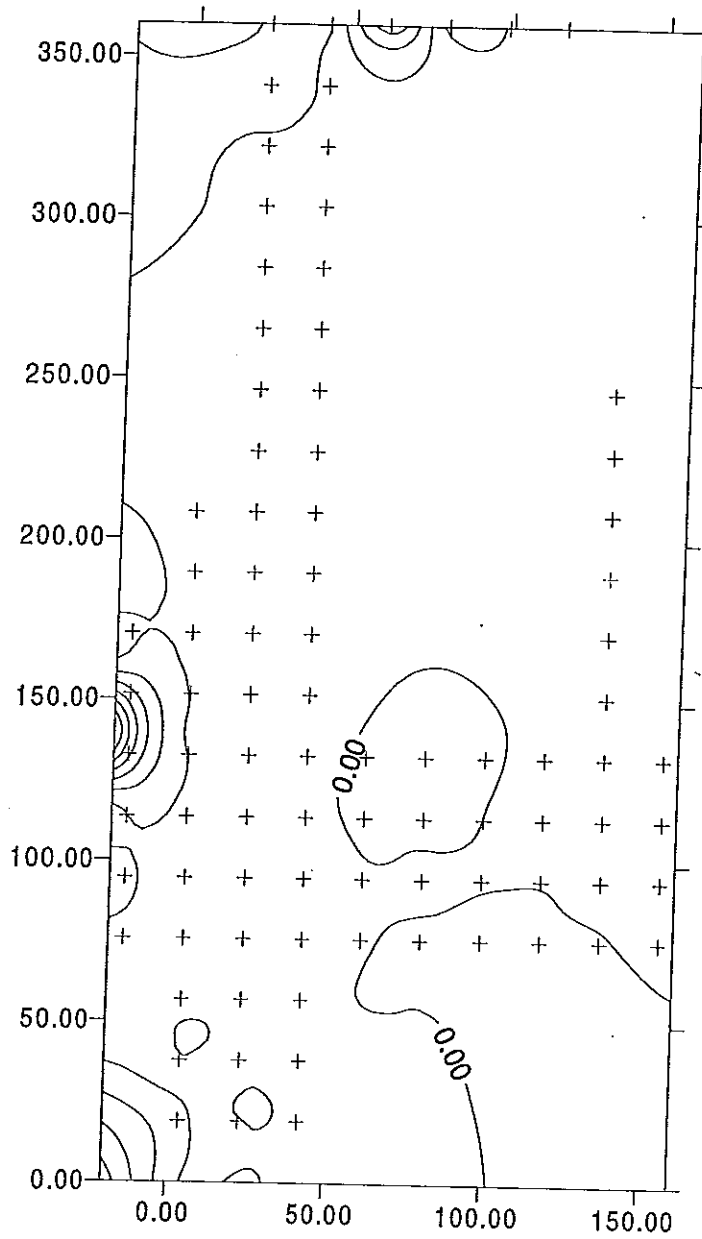
Silverdale EM-31 Results
Horizontal Dipole (North)



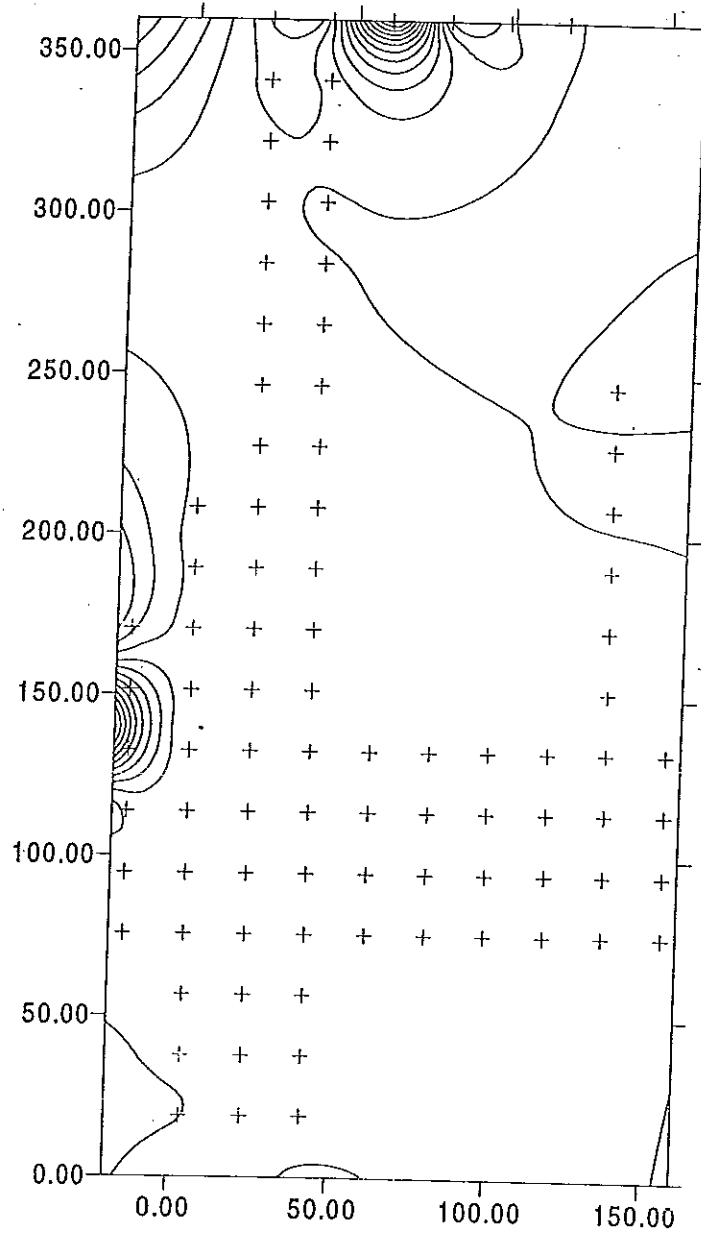
Silverdale EM-31 Results
Horizontal Dipole



Silverdale EM-31 Results
Vertical Dipole (North)



Silverdale EM-31 Results
Vertical Dipole



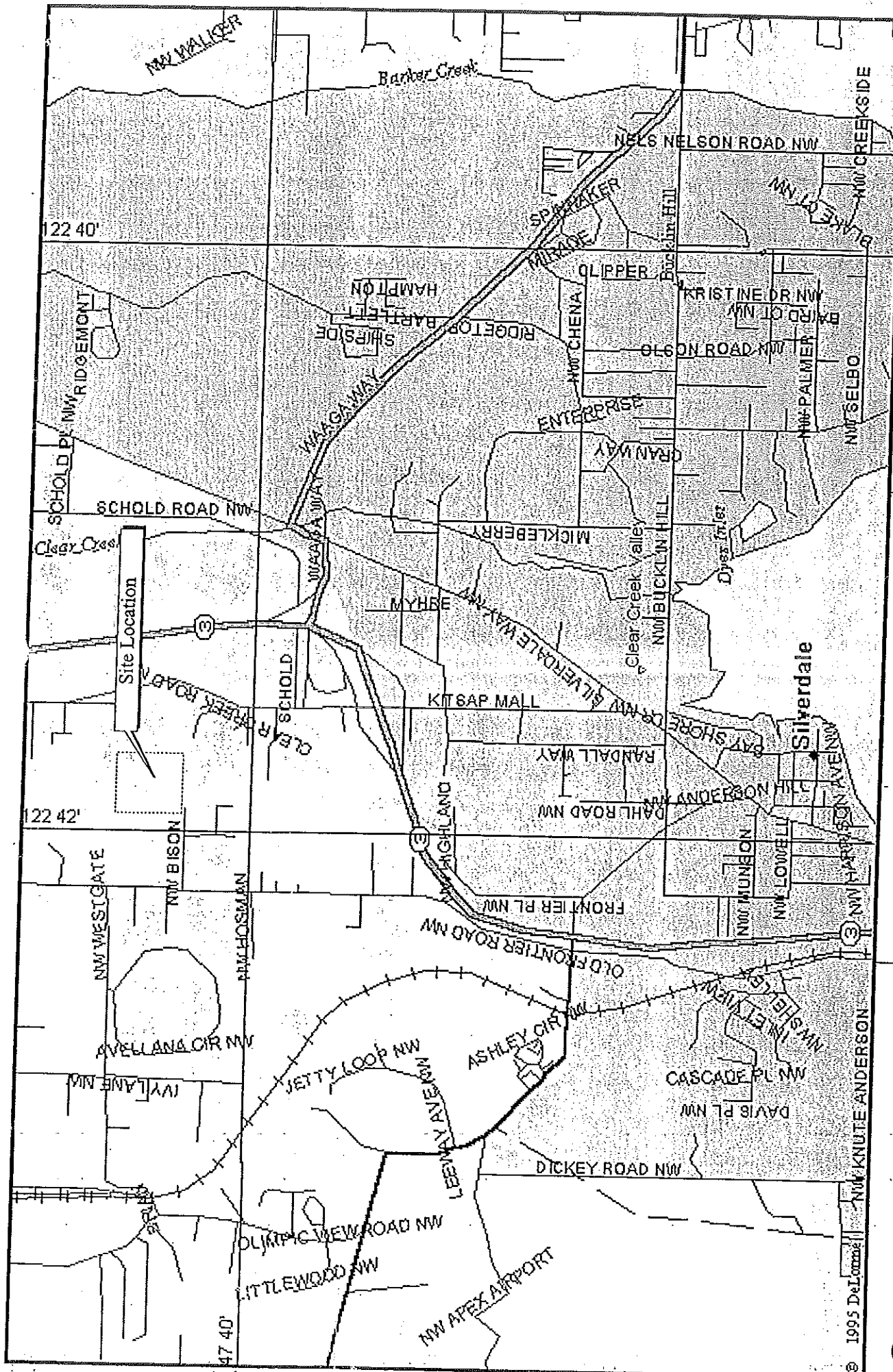
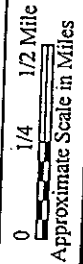


Figure 1

SITE VICINITY MAP

SILVERDALE DUMP SITE
Silverdale, Washington

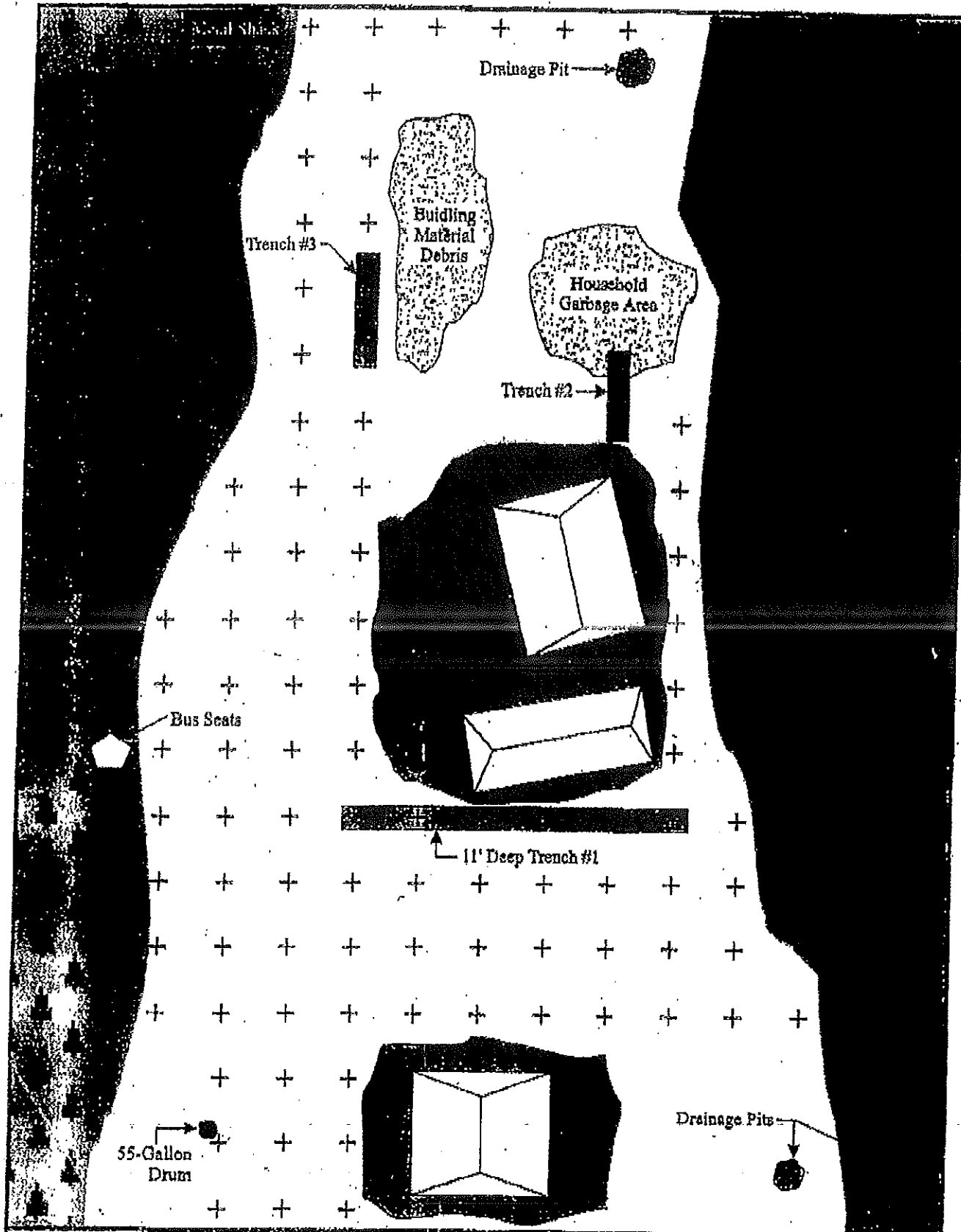




© 1995 DeLorme NW KNUTE ANDERSON

ecology and environment, inc.
 International Specialists in the Environment
 Seattle, Washington

Drawn: MRE	Date 9/17/97	Job No. BF0901SFT0	Dwg.No. BF0901FI
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1997



 ecology and environment, inc. International Specialists in the Environment Seattle, Washington	SILVERDALE DUMP SITE Silverdale, Washington		Figure 2 SITE MAP	
	 No Scale Used	Drawn: MRE	DATE: 10/29/97	JOB NO. BF09018FT0





August 26, 2005
J05-776

Steven J. Brown
Kitsap County Health District
345 6th Street, Suite 300
Bremerton, Washington 98337-1866

**Buried Drum Search
Seitz Property – Parcel 1**

The report presents the results of the Magnetic and Ground Penetrating Radar survey on the Seitz Property – the 5 Acre Parcel 1, located on the Bison/Brian Lane, Kitsap County. The purpose of the investigation was to determine if the reported location of a trench exists and which may or may not contain buried drums. The GPS location of the East end of the reported trench is at N 47° 40' 8.8", E 122° 41' 52.6". The search utilized a Flux-gate Magnetic Gradiometer and Ground Penetrating Radar. The survey was conducted on August 16 and 17, 2005.

The area surveyed is shown on the attached Figure 1. The South end of the reported trench site was made utilizing the GPS coordinates provided and a grid was laid out for the magnetic survey. The magnetic measurements were recorded at a grid spacing of 5 feet, with readings taken continuously between the grid points. The northern end of the grid was blocked by a pile of alder trees cut from the area. Evidence of the 1997 Trench #1 dug by Ecology and Environment can be found in the ground surface as shown in Figure 1. The west end of the trench may or may not be accurately plotted.

No evidence of buried drums is shown in the magnetic data, Figure 2.

The Ground Penetrating Radar (GPR) data does not show evidence a trench excavation. The dipping strata or lineation shown in the attached GPR images would be broken by an excavated trench, and the unclassified backfill.

The magnetic signature of a single 55-gallon drum at a sensor height of 10 feet over the drum can be computed at 60 nano-Tesla. The magnetic signature is a function of the magnetic susceptibility of the material in the drum, the residual magnetization of the material (remanent magnetization) and inversely proportional to the cube of the distance between the drum and the magnetic sensor. The strength of the magnetic anomaly would increase depending on the number of drums, and likewise be altered by the actual distance between the drums and the sensor.

The result of the magnetic measurements is shown on Figure 2. The average of the magnetic field at the site was -7 nano-Tesla/0.5 metres. A shallow magnetic anomaly was found as shown in red on Figure 2, in the SW corner of the grid. The anomaly was approximately 15 nano-Tesla/half-metre. The depth of the anomaly is estimated to be from 1 to 2 feet in depth based on the width of the anomaly. Along the West edge of the grid, near the North end another anomaly was noted during the field effort. The anomaly was the result of a piece of iron debris buried just below the ground surface. The debris was removed and the measurements repeated over that location. The sensor height during measurement was 2 feet over the ground surface.

On completion of the magnetic measurements, three GPR lines were run as shown in Figure 1. The GPR data is shown following Figure 2. The notable results of the GPR data are the cross dipping strata in the data. The dipping data can be better seen by looking at the records end on. These lineations would be broken by a trench excavation and trench backfill.

Methods

The Ground Penetrating Radar (a GSSI, SIR System 2) utilized a 400 Mega-Hertz antenna. The GPR antenna used for this investigation transmits a 2.5 nano-second (ns) pulse at a center frequency of 400 Mega-Hertz for the selected scan rate of 16 times per second. When the signal encounters a change in electrical properties (a change in electrical permittivity), a portion of the signal energy is reflected back to the surface. The reflected signal received by the antenna, is digitally processed and recorded in the instrument consol. The data was analyzed with Radan Software. The reflection characteristics are used to interpret the reflections.

The magnetic Gradiometer was a Granger Flux-gate magnetic gradiometer. The instrument utilizes two Flux-gate sensors separated by 0.2 metres (0.65 feet) normalized to 1/2 metre. The vertical field was measured. The gradiometer readings are obtained by subtracting the field measured at the upper sensor from the field measured at the lower sensor. Normal measurements resulted in a

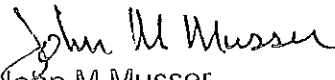
negative value, that is, the magnetic field at the upper sensor is greater than at the lower sensor. Over a magnetic source, the measured magnetic field becomes positive. A gradiometer was used to avoid establishing a separate base station to measure the variations in the earth's magnetic field (diurnal variations).

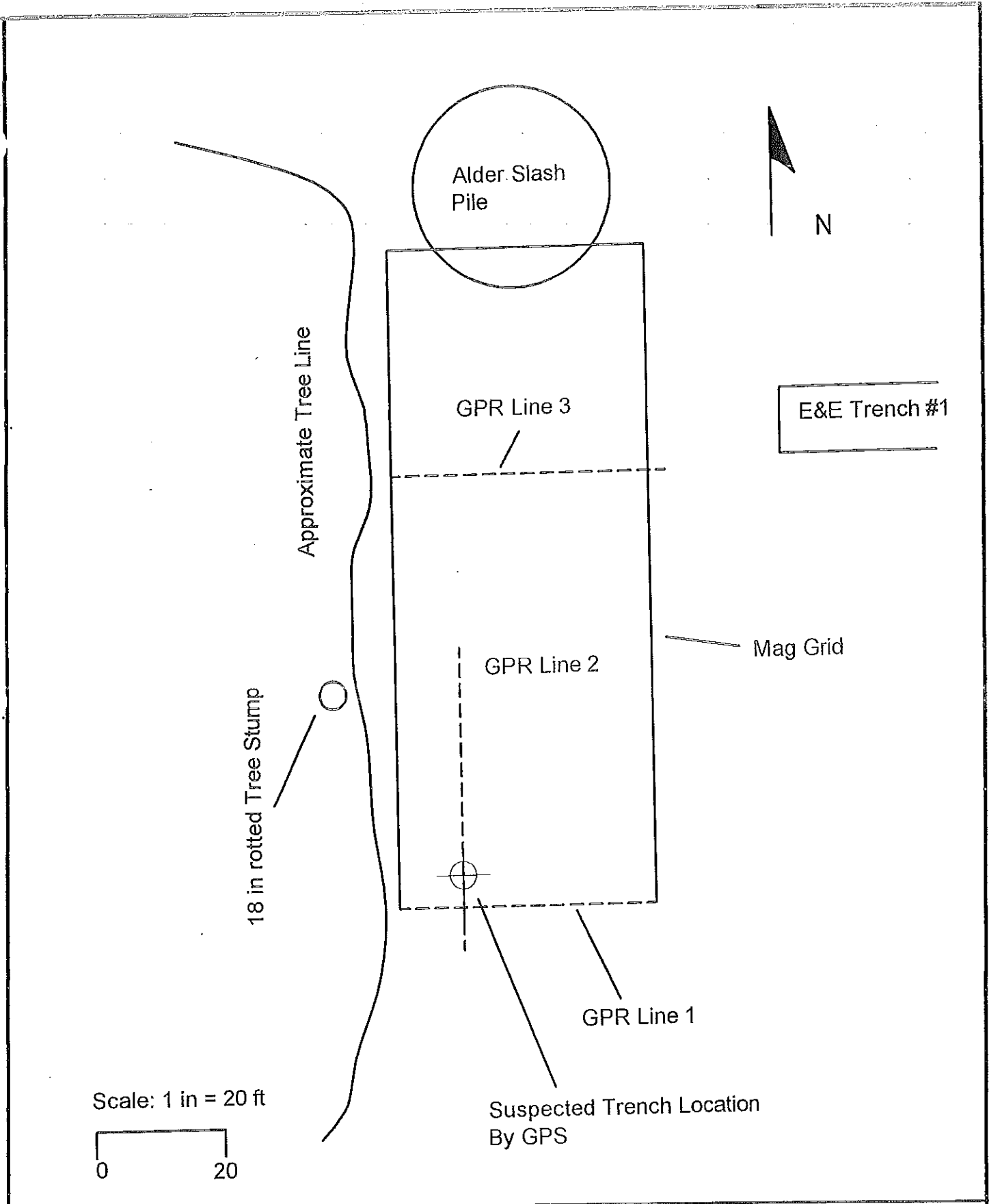
The depth of the magnetic source may be estimated by the wave length of the resulting anomaly in feet. The depth of the anomaly is approximated by computing the quarter wave length (in feet) of the resulting anomaly.

The information presented in this report is based upon geophysical measurements made by generally accepted methods and field procedures, and our interpretation of these data. The presented information is based upon our best estimate of subsurface conditions considering the geophysical results and all other information available to us. These results are interpretive in nature and are considered to be a reasonably accurate presentation of the existing conditions within the limitations of the method or methods employed.

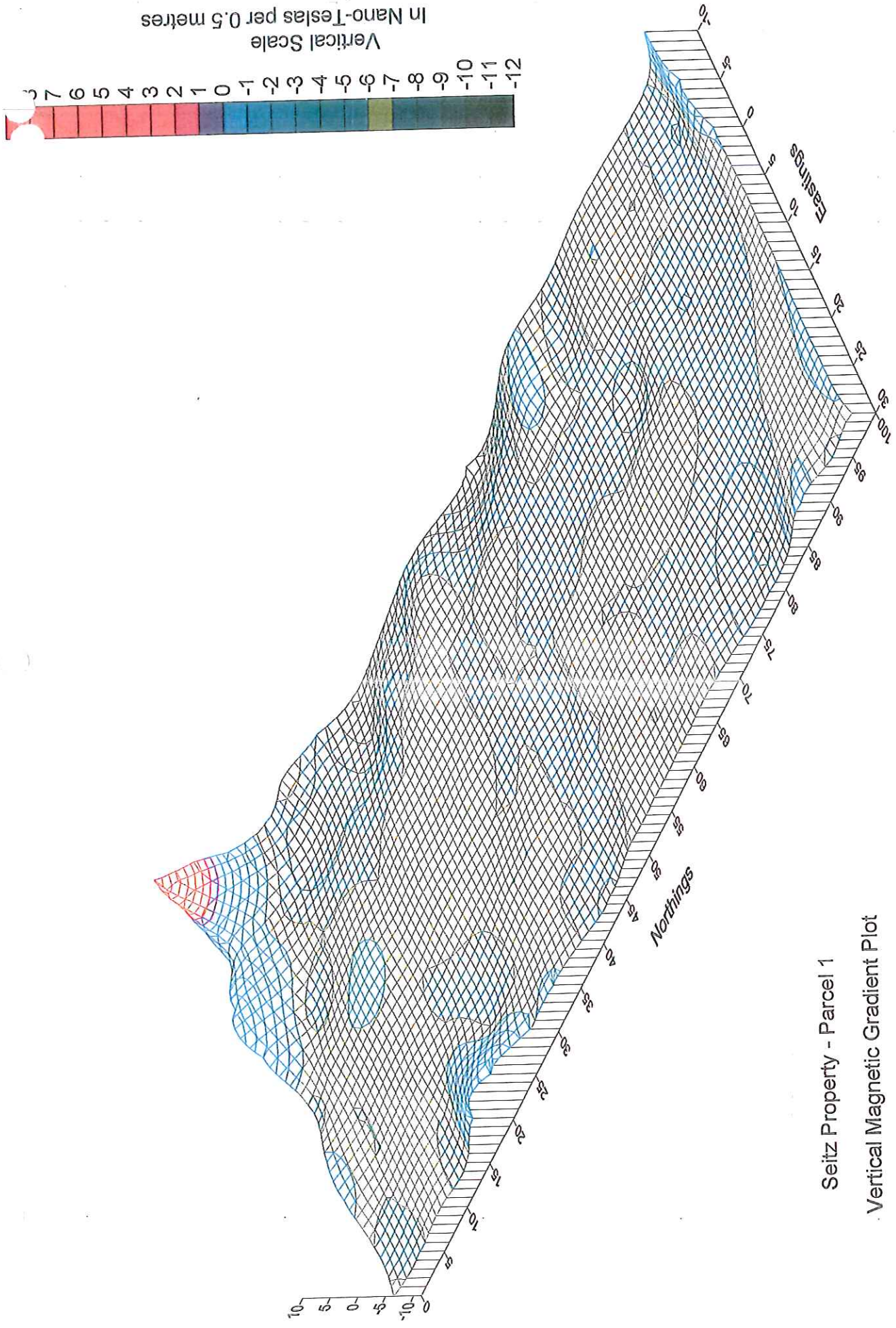
We trust that the above is sufficient for your requirements. Please let us know if you have any questions or if we may be of further assistance.

For Geo-Recon International


John M Musser
Principal Geophysicist



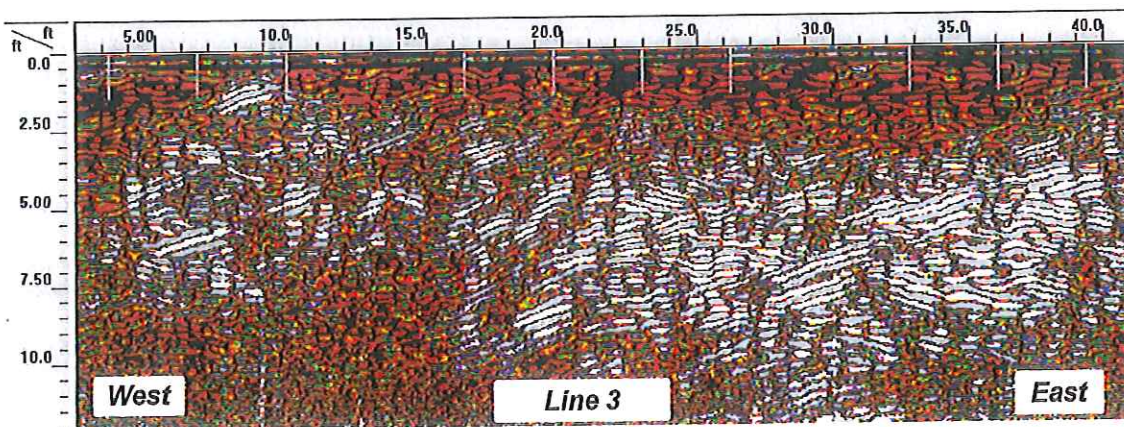
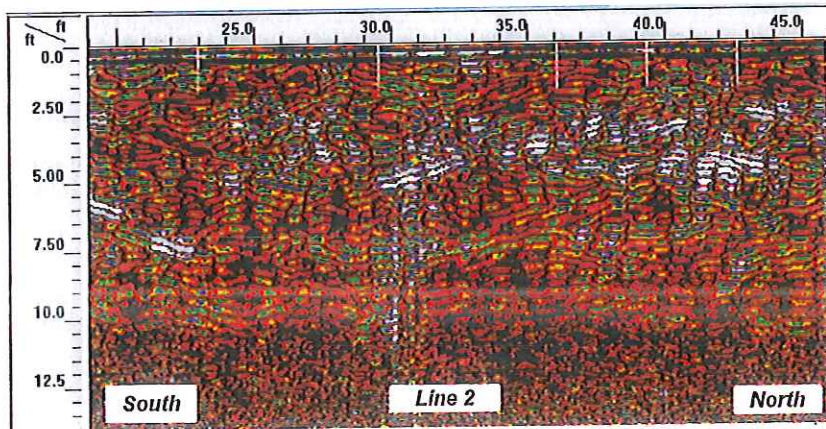
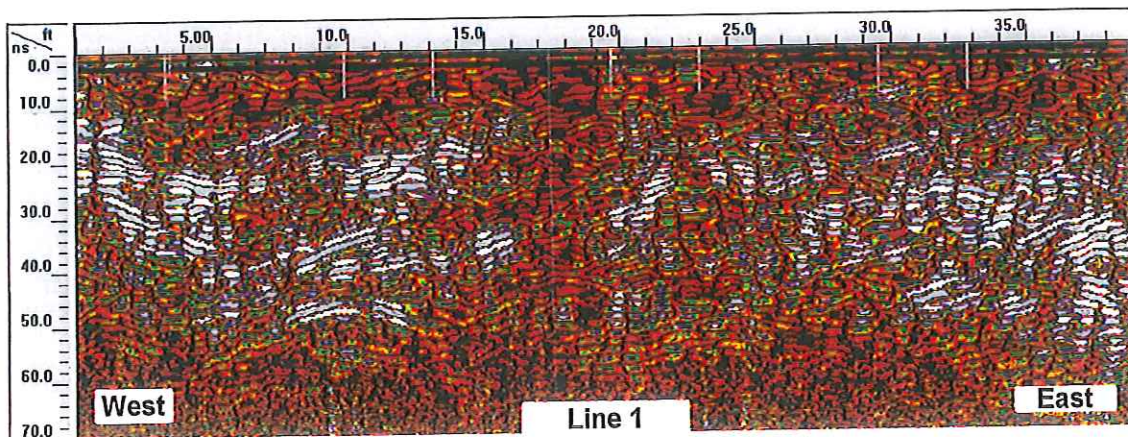
Location Plan	Seitz Property, Parcel 1, Bison/Brian Lane, Kitsap Cty, WA
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Seitz Property - Parcel 1
 Vertical Magnetic Gradient Plot

Figure 2

Ground Penetrating Radar Data – Seitz Property, Parcel 1





**SITE HAZARD ASSESSMENT
WORKSHEET 1
SUMMARY SCORE SHEET**

Site Name/Location (Street, City, County, Section /Township/Range, ID Number):

Seitz Property	Township:	25N
off Brian Lane	Range:	1E
Silverdale, WA 98383	Section:	8
	Longitude:	W122° 41' 49.6"
	Latitude:	N47° 40' 9.7"

Facility Site ID: 6865393

February 7, 2006

Site assessed for the February 22, 2006, update of the Site Register.

Site Description (Include management areas, substances of concern, and quantities):

The Seitz Property is a five (5) acre, undeveloped property located in central Kitsap County northwest of Silverdale.

On March 18, 2005, the Kitsap County Health District (Heath District) visited the site to investigate a complaint filed by a neighboring property owner of solid waste on the surface of the ground. Health District staff observed several piles of trash and rubbish that appeared to have been uncovered/unearthed by recent land clearing activity at the site. At that time, the Health District documented via photos that the complaint was valid and contacted the property owner to inquire about the status of the waste observed on the ground. The owner related that he was planning on developing the property, and on cleaning up the solid waste.

On March 25, 2005, the property owner informed the Health District that **he found several drums of unknown waste at the site.** The Health District inspected the site on March 28, 2005. **Seventeen (17) drums were identified.** All of the drums were sitting on the surface of the ground. **Four (4) of them had signs of leakage or spillage.** Several of the drums were labeled with "Roybond Primer". The area around the drums smelled of solvents, and all of the drums were found to be full or close to full. Results of the inspection were forwarded over to the Washington Department of Ecology (Ecology). (The property owner contracted for the removal of the drums from the site by Clean Harbors Environmental Services on August 17, 2005.)

On March 29, 2005, Ecology received a report of hazardous waste dumping at the site (ERTS #547121). The complaint alleged the dumping had occurred in 1985 or 1986 when the property was owned by a Mr. Ron Deno. Also, the complaint alleged that several drums with unknown contents were buried on the property.

Previously, in 1997, as the result of a complaint from the same person, Ecology and Environment, Inc. (E&E) conducted a survey of the property on behalf of the U.S.

Environmental Protection Agency (EPA). The geophysical survey and trench digging that occurred during the survey revealed no evidence of buried drums or cylinders.

Now the complainant maintains that the 1997 survey was done in the wrong area and that hazardous waste is still buried at the site. An initial investigation was started by the Health District as the result of the ERTS received from Ecology. The Initial Investigation was closed out on April 12, 2005, with agreement between Ecology and the Health District to conduct an SHA.

The site was listed on the Washington State Department of Ecology's (Ecology) Confirmed and Suspected Contaminated Sites (CSCS) list on April 19, 2005, based on confirmed releases of total petroleum hydrocarbons to soil and suspected releases of halogenated organic compounds, metals, and non-halogenated solvents to soil.

On August 26, 2006, a letter was sent to the owner of the property informing him that the site will undergo a site hazard assessment (SHA), under the Model Toxics Control Act (MTCA).

SHA INVESTIGATION

A ground penetrating radar and magnetic survey was conducted on August 16, and 17, 2005, at the site because of the possibility of buried drums on the site in areas not covered by the 1997 E&E study. The results were negative. No buried metallic objects and no signs of excavation were found.

On August 31, 2005, a site visit was conducted by Health District staff to familiarize one of the staff with the site. The five (5) acre site has about two (2) acres cleared on the west end.

SHA SOIL AND WATER SAMPLING

On November 16, 2005, the Health District conducted a sampling event at and near the Seitz Property. The sampling consisted of two (2) water samples from drinking water wells down slope of the site, and five (5) soil samples from the cleared area of the site. The drinking water samples were analyzed for NWTPH-Dx, VOCs, SVOCs, and metals. Two (2) of the soil samples were analyzed for NWTPH-Dx, VOCs, SVOCs, and metals. The other three (3) soil samples were analyzed for NWTPH-Dx, SVOCs, and metals.

Soil Results

Results from the soil and groundwater samples are listed below in Table 1.

The soil results indicate that sample SP2 contains carcinogenic polycyclic aromatic hydrocarbons (PAHs) above their MTCA Method A levels. SP1, SP3, SP4, SP5 all had detections of PAHs but they were within acceptable MTCA Method A levels. In addition, SP1 contained a number of phthalate compounds, all of which were below MTCA. One phthalate compound was found in the method blank for soils, indicating likely contamination of this compound in the method blank at the lab. No soil samples showed exceedances of MTCA for metals.

TABLE 1: SEITZ PROPERTY SOIL AND WELL WATER SAMPLING RESULTS

SVOCs	SP1 Soil (mg/kg)	SP2 Soil (mg/kg)	SP2 PAHs (mg/kg)	SP3 Soil (mg/kg)	SP4 Soil (mg/kg)	SP5 Soil (mg/kg)	Soil Cleanup Standard (mg/kg)	Soils Blank (mg/L)	SP7 Water (mg/L)	Water Blank (mg/L)
Phenol	ND	4.77	NA	ND	ND	ND	48000	ND	ND	ND
2,4-Dimethylphenol	ND	0.09	NA	ND	ND	ND	1600	ND	ND	ND
2-Methyl naphthalene	ND	0.12	NA	ND	ND	ND	320	ND	ND	ND
Dimethyl phthalate	0.06		NA	ND	ND	ND	80000	ND	ND	ND
Acenaphthene	ND	5.04	NA	ND	ND	ND	4800	ND	ND	ND
Dibenzofuran	ND	3.73	NA	ND	ND	ND	160	ND	ND	ND
Fluorene	ND	5.74	NA	ND	ND	ND	3200	ND	ND	ND
Diethyl phthalate	0.04		NA	ND	ND	ND	64000	ND	ND	ND
Phenanthrene	ND	55.8	NA	0.05	ND	ND	none	ND	ND	ND
Anthracene	ND	11.6	NA	ND	ND	ND	24000	ND	ND	ND
Di-n-butyl phthalate	0.09 ¹	ND	NA	0.09	0.08	ND	none	0.07	0.12	0.24
Fluoranthrene	ND	86.8	NA	0.26	0.09	0.05	3200	ND	ND	ND
Pyrene	ND	124.0	NA	0.29	0.1	0.06	2400	ND	ND	ND
Butyl benzenyl phthalate	0.06	ND	NA	ND	ND	ND	1600	ND	0.16	0.24
Benzo(a) anthracene	ND	99.0	9.9 ^{2,3}	0.17	0.09	0.07	0.1	ND	0.12	0.16
Chrysene	0.05	64.0	0.6	0.15	0.1	0.08	0.1	ND	0.1	0.15
Bis(2-ethylhexyl) phthalate	0.04		NA	0.28		0.05	71	ND	0.5	0.55
Benzo(b) fluoranthrene	ND	165	16.5	ND	ND	ND	0.1	ND	ND	ND
Benzo(k) fluoranthrene	ND	7.33	0.7	ND	ND	ND	0.1	ND	ND	ND
Benzo(a)pyrene	ND	63.2	63.2	ND	ND	ND	0.1	ND	ND	ND
TOTAL PAHs			91.0				0.1			
Metals										
Arsenic			NA	2.2	2.25		20	NA	0.012 ⁴	
Mercury	0.002	0.015	NA	0.025	0.031	0.010	2	NA	0.001	
Iron	14796	22165	NA	12604	14533	12314	none	NA	0.711 ⁵	
VOCs										
Methylene chloride	ND	ND	NA	ND	ND	ND	ND	24.8	0.5	1

1. Light shading indicates sample results invalid. The method blank was found to have been contaminated with the analyte.
2. Dark shading indicates sample results exceed the appropriate standard.
3. Carcinogenic PAH results are totaled together, and a toxicity equivalency factor applied. If the results exceed 0.1 mg/kg the sample is greater than MTCA Method A Cleanup Levels for PAHs.
4. The arsenic result exceeds the new MCL of 0.01 ppm. However, Health District files contain sample results for this water system that also exceed the new standard but are below the old standard of 0.05 ppm and no arsenic was found in the soil at the site. Therefore the Health District concludes that the result of 0.012 ppm is not from the contaminated site.
5. Exceeds the secondary MCL of 0.3 ppm. Secondary MCLs are advisory for taste and odor.

Ground Water Sampling Results

One of the two well water samples showed exceedances of Maximum Contaminant Levels (MCLs) for the Washington State Drinking Water Standards. Drinking water sample SP7, the Landsworth Creek Water System well, exceeded the MCL (0.01 mg/l) for arsenic at 0.012 mg/l and the MCL (0.3 mg/l) for iron at 0.711 mg/l. The MCL for iron is secondary, and is for taste and odor.

PATHWAY SCORING

Surface Water Route

The closest surface water to the site is approximately 1100 ft to the east-northeast and is Clear Creek. Clear Creek is a salmon stream that flows approximately two (2) miles into Dyes Inlet of Puget Sound. Clear Creek flows year around.

Air Route

Air emissions from PAHs in soil would be the primary air release pathway from the Seitz Property. The closest residence is located approximately 200 feet from the Seitz property. Approximately 135 homes with approximately 337 residents are situated within one-half mile of the site. No confirmed release of contaminants was scored for the air pathway.

Groundwater Route

The groundwater contaminant route was scored as a spill to the surface of the ground. Vertical depth to groundwater is believed to be between 50-100 feet bgs, based on local well logs and the area's topography. An unknown volume of contaminated soils was used in scoring as the extent of the spill is unknown.

The closest well is a small public well approximately 500 feet from the area of concern at the Seitz Property. This well was sampled as part of the SHA (See SP7 above in Table 1 and in the discussion on ground water sampling results.).

The arsenic standard was, until January 2006, 0.05 ppm. In January 2006, the US Environmental Protection Agency MCL was reduced to 0.01 ppm for Group A water systems. The Health District's Drinking Water Program is in the process of implementing the new arsenic standard in their regulations for Group B systems such as the Landsworth Creek Water System. Additionally, the Health District's file on the Landsworth Creek Water System contains historic arsenic results in the same range. For instance in 1987 the water system had a sample result of 0.017 ppm for arsenic. Based on historical data in the water system file and the lack of arsenic in the soils at the Seitz Property the Health District is of the opinion that the arsenic result from this well is not associated with contamination at the Seitz Property.

The iron standard is 0.3 ppm. This is a secondary drinking water standard for iron is 0.3 ppm, in place for odor and taste issues. There is no adverse health effects associated with this secondary MCL. Health District staff located four (4) Group A water systems, ten (10) Group B water systems, and 316 private wells within 2 miles of the landfill site. These wells served an estimated 8,463 persons with no alternative drinking water sources available.

The soil type that is mapped in the area of the Seitz Property is classified Alderwood very gravelly sandy loam. This soil type is typified by 6 to 15 percent slopes, is moderately deep and well drained. A silica cemented hardpan layer is found from 20 to 40 inches. The other major soil type in the immediate area is the Neilton gravelly loamy sand. This soil type has very gravelly loamy sand to 20 inches and very gravelly sand to 60 inches.

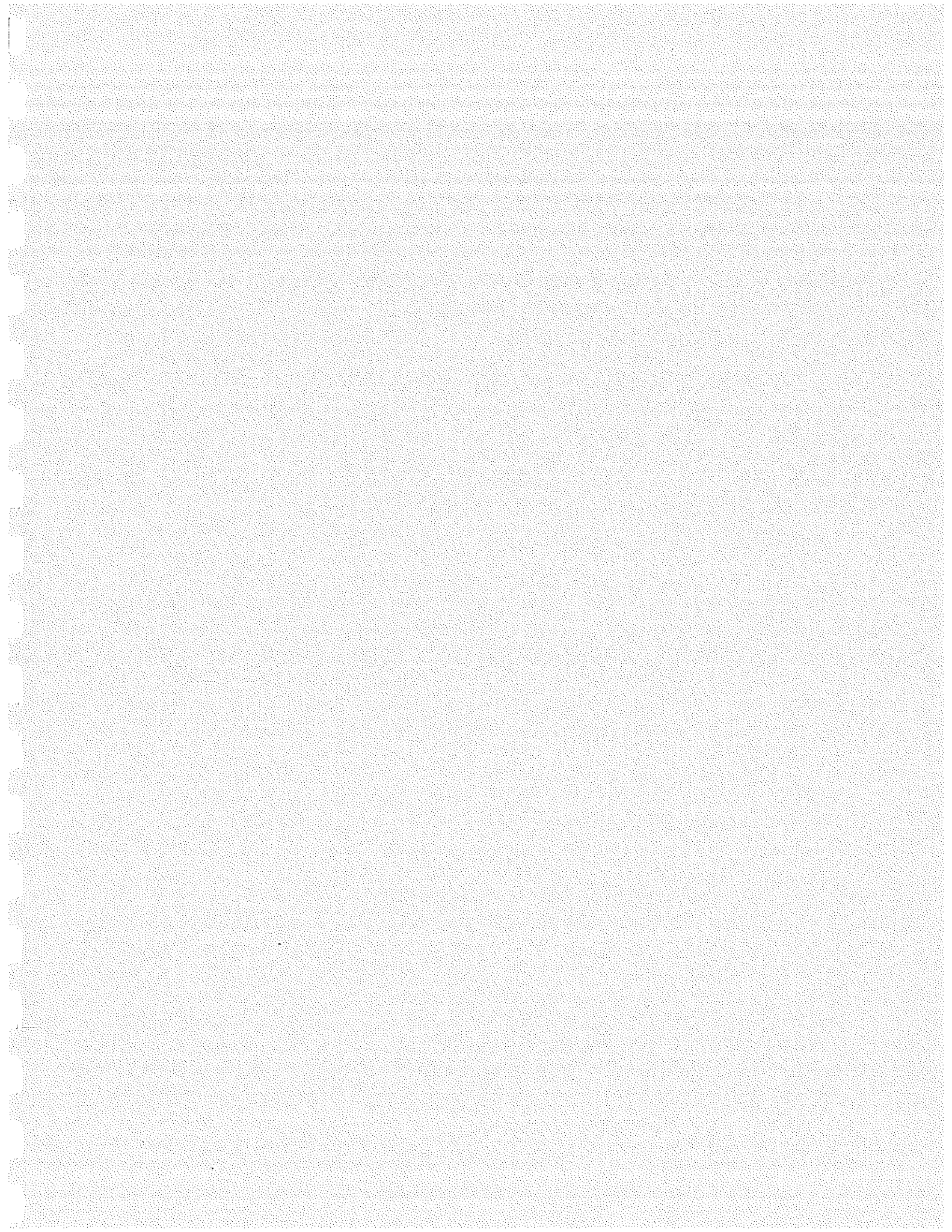
Special Considerations (Include limitations in site file data or data, which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site):

The Washington Ranking Method guidance assumes 3 people per household when scoring the air and groundwater pathways. However, the scoring for the Seitz Property site used the Kitsap County average of 2.5 people per household.

PATHWAY SCORES:

Surface Water/Human Health:	<u>16.1</u>	Surface Water/Environ:	<u>47.7</u>
Air/Human Health:	<u>8.0</u>	Air/Environmental:	<u>NS</u>
Groundwater/Human Health:	<u>45.9</u>		

OVERALL RANK: 2





SCOTT W. LINDQUIST, MD, MPH, DIRECTOR
345 6th STREET, SUITE 300
BREMERTON, WA 98337-1866
(360) 337-5236

August 22, 2005

Jeffrey L. Rowe-Hornbaker
Manager, Development Engineering
614 Division Street
Port Orchard, WA 98366

RE: Final Short Plat Subdivisions 7104 & 7105/ SDAP 02 3916

Dear Mr. Rowe-Hornbaker:

The Kitsap County Health District (Health District) is writing you at the request of Mr. Andrew Seitz. In a letter to him dated August 11th 2005 you requested a timeline and any supporting documents from him to explain what has been occurring at his property in recent months. What follows is my attempt to satisfy your request.

March 18th 2005- As the result of a citizen complaint, I visited the property in question (no addresses for the site as far as I know). I found what appeared to be recent landclearing activity at the site. The landclearing/vegetation removal had uncovered quite a bit of solid waste including junk vehicles, scrap metal, and what appeared to be a household waste dumping grounds. I've attached the photos I took during that initial visit.

March 21st 2005- First contact made with property owner. I spoke with Andy Seitz on the phone about what I had seen. He explained to me that he is in the process of developing the property. I told him that as the property owner he is responsible for properly disposing of all the solid waste he finds/generates during the development process. Mr. Seitz tells me that that is his intention.

March 25th 2005- Mr. Seitz calls me to tell me that while clearing vegetation on this property he has discovered several 55 gallon drums on the surface of the ground that he was previously unaware of. He asks me to investigate.

March 28th 2005- I visited the site along with coworker Grant Holdcroft. We found the drums (18 total) and took the attached photos during our site inspection.

March 29th 2005- A neighboring property owner calls the Washington State Department of Ecology (Ecology) to report the trash/drums on the site, and alleges that there are drums buried on the site in addition to the ones we already know about. As per procedure, Ecology refers the report to us to investigate and report. By this point I had already been to the site twice so I sent Ecology a narrative of what we had found.

April 12th 2005- Ecology asks the Health District to perform a Site Hazard Assessment (SHA) at the Seitz property.

Mr. Rowe-Hornbaker
August 22, 2005

April 18th 2005- Met with Mr. Seitz here at our offices. He tells me that this site was already investigated for allegations of buried waste in 1997. He brought me a copy of a report entitled *Silverdale Dump Site-Removal Site Assessment* dated October 1997, addressed to the Seattle offices of the EPA. I forwarded a copy on to Ecology.

May 2nd 2005- Ecology contacts me with the decision that another SHA is warranted at the Seitz property. We are currently scheduling SHA's for the month of August. This delay will prevent Mr. Seitz from further site development until we can get the site surveyed by a private contractor.

August 16th 2005- A private contractor (Geo-Recon) begins an electromagnetic and ground penetrating radar survey of the portion of the Seitz property where the waste/drums are alleged to be buried. Initial results are negative for any buried waste, currently awaiting final report from Geo-Recon.

August 17th 2005- The 18 drums discovered on the grounds surface are removed by Clean Harbors Environmental Services, currently awaiting invoices/receipts from them.

The next step is to take some soil samples from the property to assess if there are any impacts to the soil at the site. We haven't yet set a date for taking these samples, but my plan is to have the sampling done by mid-September. Further development at the site should be delayed until the soil samples are taken, and the results are known. The Health District will then submit our findings to the Dept. of Ecology for their review.

If you have any questions please feel free to call. I can be reached at (360) 337-5605.

Sincerely,

Steven J. Brown
Environmental Health Specialist
Solid and Hazardous Waste Program

sjb/swwqbcd/shw/common/sha/sites/seitzproperty

KITSAP COUNTY HEALTH DISTRICT

PHOTO LOG

Location: Seitz Property

Photo #: 1

Date: 3/28/05

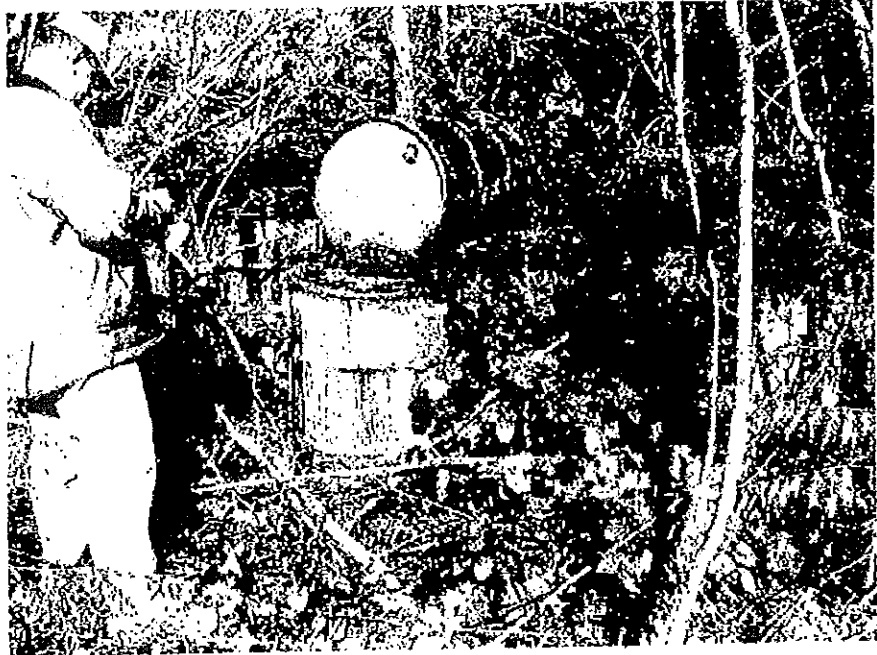
Time: 9:30 am

Taken by: Steve Brown

Witness: Grant H.

Film: Digital

Camera: Sony Mavica



Description: 55 gallon drums found in overgrown brush. Counted 17, all appear full, contents unknown; possibly primer or industrial adhesive.

Location: same

Photo #: 2,3

Date: 3/28/05

Time: 9:30 am

Taken by: Steve Brown

Witness: Grant H.

Film: Digital

Camera: Sony Mavica



Description: Contents? of blue drum solidified, no odor. Lower photo of sticks and branches stuck to top of drum, black sticky substance on lid smells like model airplane glue.

Time: 12:30 pm

Taken by: Steve Brown

Witness: _____

Film: Digital

Camera: Sony Mavica



Description: MSW debris uncovered by recent landclearing activity. Photo taken in same area as Photo 1.

Site name and site address

Film: Digital

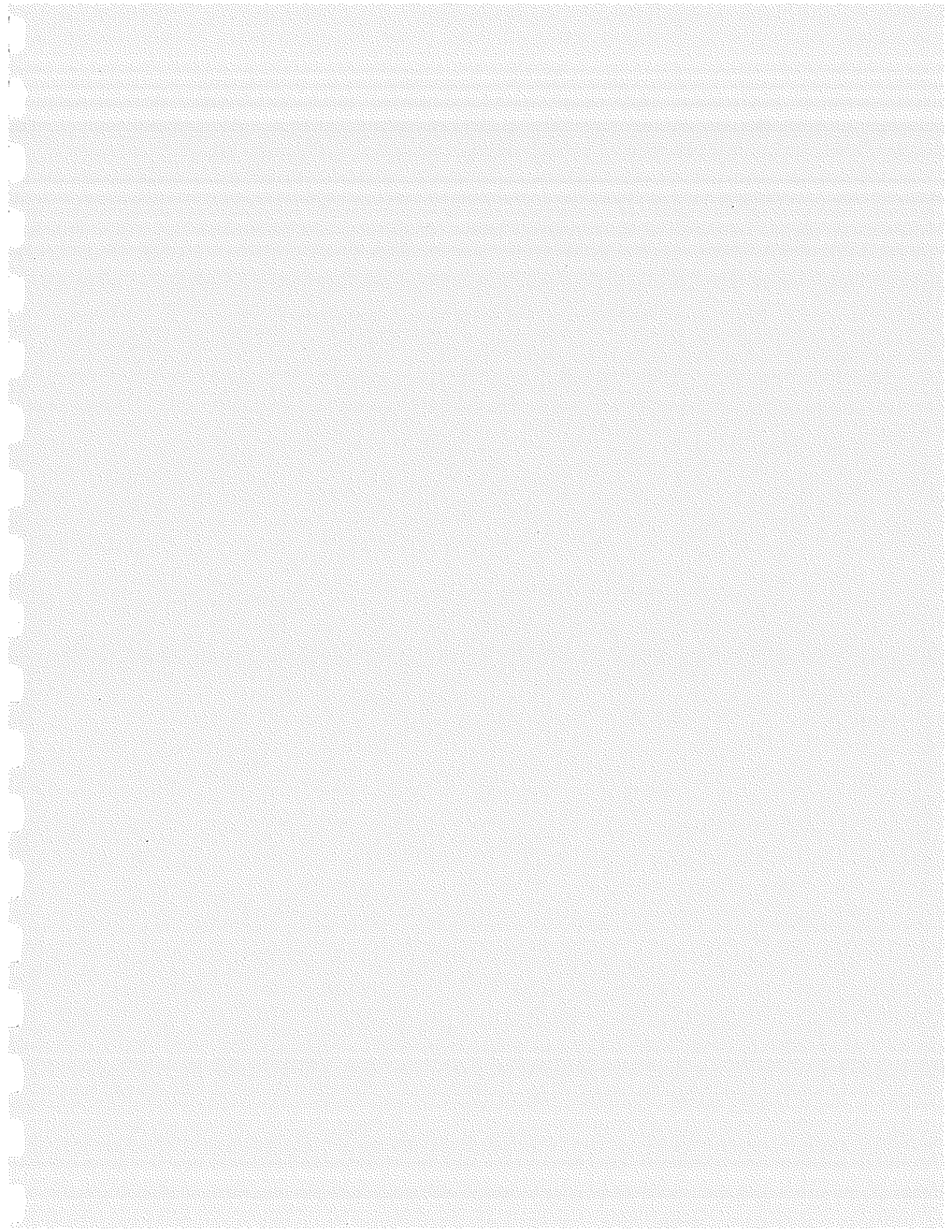
Camera: Sony Mavica



Description: Contents? of blue drum solidified, no odor. Lower photo of sticks and branches stuck to top of drum, black sticky substance on lid smells like model airplane glue.

Sj/5mvaqbed/15w/cont/mov

Sj/5mvaqbed/15w/cont/mov



**SITE HAZARD ASSESSMENT
WORKSHEET 1
SUMMARY SCORE SHEET**

Site Name/Location (Street, City, County, Section /Township/Range, ID Number):

Seitz Property
off Brian Lane
Silverdale, WA 98383

Township: 25N
Range: 1E
Section: 8
Longitude: W122° 41' 49.6"
Latitude: N47° 40' 9.7"

Facility Site ID: 6865393

February 7, 2006

Site assessed for the February 22, 2006, update of the Site Register.

Site Description (Include management areas, substances of concern, and quantities):

The Seitz Property is a five (5) acre, undeveloped property located in central Kitsap County northwest of Silverdale.

On March 18, 2005, the Kitsap County Health District (Heath District) visited the site to investigate a complaint filed by a neighboring property owner of solid waste on the surface of the ground. Health District staff observed several piles of trash and rubbish that appeared to have been uncovered/unearthed by recent land clearing activity at the site. At that time, the Health District documented via photos that the complaint was valid and contacted the property owner to inquire about the status of the waste observed on the ground. The owner related that he was planning on developing the property, and on cleaning up the solid waste.

On March 25, 2005, the property owner informed the Health District that he found several drums of unknown waste at the site. The Health District inspected the site on March 28, 2005. Seventeen (17) drums were identified. All of the drums were sitting on the surface of the ground. Four (4) of them had signs of leakage or spillage. Several of the drums were labeled with "Roybond Primer". The area around the drums smelled of solvents, and all of the drums were found to be full or close to full. Results of the inspection were forwarded over to the Washington Department of Ecology (Ecology). (The property owner contracted for the removal of the drums from the site by Clean Harbors Environmental Services on August 17, 2005.)

On March 29, 2005, Ecology received a report of hazardous waste dumping at the site (ERTS #547121). The complaint alleged the dumping had occurred in 1985 or 1986 when the property was owned by a Mr. Ron Deno. Also, the complaint alleged that several drums with unknown contents were buried on the property.

Previously, in 1997, as the result of a complaint from the same person, Ecology and Environment, Inc. (E&E) conducted a survey of the property on behalf of the U.S.

Location: Seitz Property

Photo #: 1

Date: 3/28/05

Time: 9:30 am

Taken by: Steve Brown

Witness: Grant H.

Film: Digital

Camera: Sony Mavica



Description: 55 gallon drums found in overgrown brush. Counted 17, all appear full, contents unknown; possibly primer or industrial adhesive.

Location: same

Photo #: 2,3

Date: 3/28/05

Time: 9:30 am

Taken by: Steve Brown

Witness: Grant H.

Film: Digital

Camera: Sony Mavica



Description: Contents? of blue drum solidified, no odor. Lower photo of sticks and branches stuck to top of drum, black sticky substance on lid smells like model airplane glue.

Location: Seitz Property

Photo #: 1,2,3,4

Date: 3/18/05

Time: 12:30 pm

Taken by: Steve Brown

Witness: _____

Film: Digital

Camera: Sony Mavica



Description: Clockwise from upper left, MSW debris, tire pile, decaying structure, tractor trailer cab.

Location: same

Photo #: 5

Date: 3/18/05

Time: 12:30 pm

Taken by: Steve Brown

Witness: _____

Film: Digital

Camera: Sony Mavica



Description: MSW debris uncovered by recent landclearing activity. Photo taken in same area as Photo 1.

Location: Seitz Property
Photo #: 1
Date: 3/28/05
Time: 9:30 am
Taken by: Steve Brown
Witness: Grant H.
Film: Digital
Camera: Sony Mavica



Description: 55 gallon drums found in overgrown brush. Counted 17, all appear full, contents unknown; possibly primer or industrial adhesive.

Location: same
Photo #: 2,3
Date: 3/28/05
Time: 9:30 am
Taken by: Steve Brown
Witness: Grant H.
Film: Digital
Camera: Sony Mavica



Description: Contents? of blue drum solidified, no odor. Lower photo of sticks and branches stuck to top of drum, black sticky substance on lid smells like model airplane glue.

Location: Seitz Property

Photo #: 1,2,3,4

Date: 3/18/05

Time: 12:30 pm

Taken by: Steve Brown

Witness: _____

Film: Digital

Camera: Sony Mavica



Description: Clockwise from upper left, MSW debris, tire pile, decaying structure, tractor trailer cab.

Location: same

Photo #: 5

Date: 3/18/05

Time: 12:30 pm

Taken by: Steve Brown

Witness: _____

Film: Digital

Camera: Sony Mavica



Description: MSW debris uncovered by recent landclearing activity. Photo taken in same area as Photo1.

Appendix B

HAND BORING ESC15-DSA-S1

Project Name: Seitz Property
 Client: Mr. Andrew Seitz
 Project Number: ESC15-E010

Hand Boring Elevation: 209.0
 Hand Boring Location: See Figure 3
 Depth to Groundwater: None Encountered

DEPTH (FT.)	USGS Classification	VISUAL PHYSICAL DESCRIPTION	SAMPLE NO.	SAMPLE TYPE	SAMPLE DEPTH (FT.)	LABORATORY TESTING RESULTS FOR SAMPLE
0	SM	Forest duff				
		Tan, loose, gravelly sandy SILT, dry, moisture increasing with depth No staining, no odors.	SL-01 SL-02	Grab Grab		
5		Total Depth: 1.0'				
10						
15						

Excavation Contractor: ESC
 Excavation Equipment: Hand Auger
 Operator: SW/AL

Excavation Date: 06-29-2015
 ESC Representative: SEW
 Page 1 of 1

HAND BORING ESC15-DSA-S2

Project Name: Seitz Property
 Client: Mr. Andrew Seitz
 Project Number: ESC15-E010

Hand Boring Elevation: 210.0
 Hand Boring Location: See Figure 3
 Depth to Groundwater: None Encountered

DEPTH (FT.)	USGS Classification	VISUAL PHYSICAL DESCRIPTION	SAMPLE NO.	SAMPLE TYPE	SAMPLE DEPTH (FT.)	LABORATORY TESTING RESULTS FOR SAMPLE
0		Forest Duff				
	SM	Tan, loose, very gravelly sandy SILT, dry, moisture increasing with depth. No staining, no odors.	SL-03 SL-04	Grab Grab		
		Total depth: 1.0'				
5						
10						
15						

Excavation Contractor: ESC
 Excavation Equipment: Hand Auger
 Operator: SW/AL

Excavation Date: 06-29-2015
 ESC Representative: SEW
 Page 1 of 1

HAND BORING ESC15-DSA-S3

Project Name: Seitz Property
 Client: Mr. Andrew Seitz
 Project Number: ESC15-E010

Hand Boring Elevation: 210.0
 Hand Boring Location: See Figure 3
 Depth to Groundwater: None Encountered

DEPTH (FT.)	USGS Classification	VISUAL PHYSICAL DESCRIPTION	SAMPLE NO.	SAMPLE TYPE	SAMPLE DEPTH (FT.)	LABORATORY TESTING RESULTS FOR SAMPLE
0		Forest Duff				
	SM	Tan, loose, very gravelly sandy SILT, with roots/rootlets, dry, moisture increasing with depth No staining, no odors.	SL-05 SL-06	Grab Grab		
		Total depth; 1.0'				
5						
10						
15						

Excavation Contractor: ESC
 Excavation Equipment: Hand Auger
 Operator: SW/AL

Excavation Date: 06-29-2015
 ESC Representative: SEW
 Page 1 of 1

HAND BORING ESC15-DP1-S5

Project Name: Seitz Property
 Client: Mr. Andrew Seitz
 Project Number: ESC15-E010

Hand Boring Elevation: 196.0
 Hand Boring Location: See Figure 3
 Depth to Groundwater: None Encountered

DEPTH (FT.)	USGS Classification	VISUAL PHYSICAL DESCRIPTION	SAMPLE NO.	SAMPLE TYPE	SAMPLE DEPTH (FT.)	LABORATORY TESTING RESULTS FOR SAMPLE
0		Forest duff	SL-09	Grab		
	SM	Tan, loose, gravelly sandy SILT, dry, no staining, no odors.	SL-10	Grab		
		Total depth: 1.0'				
5						
10						
15						

Excavation Contractor: ESC
 Excavation Equipment: Hand Auger
 Operator: SW/AL

Excavation Date: 06-29-2015
 ESC Representative: SEW
 Page 1 of 1

HAND BORING ESC15-DP2-S6

Project Name: Seitz Property
 Client: Mr. Andrew Seitz
 Project Number: ESC15-E010

Hand Boring Elevation: 202.0
 Hand Boring Location: See Figure 3
 Depth to Groundwater: None Encountered

DEPTH (FT.)	USGS Classification	VISUAL PHYSICAL DESCRIPTION	SAMPLE NO.	SAMPLE TYPE	SAMPLE DEPTH (FT.)	LABORATORY TESTING RESULTS FOR SAMPLE
0	SM	Forest duff, debris, small pieces of plastic	SL-11 SL-12	Grab Grab		
		Tan, loose, very gravelly sandy SILT, dry, moisture increasing with depth No staining, no odors.				
5		Total depth: 1.0'				
10						
15						

Excavation Contractor: ESC
 Excavation Equipment: Hand Auger
 Operator: SW/AL

Excavation Date: 06-29-2015
 ESC Representative: SEW
 Page 1 of 1

HAND BORING ESC15-SP5-S7

Project Name: Seitz Property
 Client: Mr. Andrew Seitz
 Project Number: ESC15-E010

Hand Boring Elevation: 213.0
 Hand Boring Location: See Figure 3
 Depth to Groundwater: None Encountered

DEPTH (FT.)	USGS Classification	VISUAL PHYSICAL DESCRIPTION	SAMPLE NO.	SAMPLE TYPE	SAMPLE DEPTH (FT.)	LABORATORY TESTING RESULTS FOR SAMPLE
0	SM	Forest duff	SL-13 SL-14	Grab Grab		
		Tan, loose, very gravelly sandy SILT, dry, no staining, no odors.				
		Total depth 1.0'				
5						
10						
15						

Excavation Contractor: ESC
 Excavation Equipment: Hand Auger
 Operator: SW/AL

Excavation Date: 06-29-2015
 ESC Representative: SEW
 Page 1 of 1

HAND BORING ESC15-DSA-S5-1.5'

Project Name: Seitz Property
 Client: Mr. Andrew Seitz
 Project Number: ESC15-E010

Hand Boring Elevation: 209.0
 Hand Boring Location: See Figure 3
 Depth to Groundwater: None Encountered

DEPTH (FT.)	USGS Classification	VISUAL PHYSICAL DESCRIPTION	SAMPLE NO.	SAMPLE TYPE	SAMPLE DEPTH (FT.)	LABORATORY TESTING RESULTS FOR SAMPLE
0	SM	Brown, loose to medium dense, gravelly silty SAND, dry, no staining, no odors.	S5-1.5	Grab		
		Total depth 1.5'				
5						
10						
15						

Excavation Contractor: ESC
 Excavation Equipment: Hand Auger
 Operator: AL

Excavation Date: 10-19-2015
 ESC Representative: SEW
 Page 1 of 1

HAND BORING ESC15-DSA-S6-1.5'

Project Name: Seitz Property
 Client: Mr. Andrew Seitz
 Project Number: ESC15-E010

Hand Boring Elevation: 209.0
 Hand Boring Location: See Figure 3
 Depth to Groundwater: None Encountered

DEPTH (FT.)	USGS Classification	VISUAL PHYSICAL DESCRIPTION	SAMPLE NO.	SAMPLE TYPE	SAMPLE DEPTH (FT.)	LABORATORY TESTING RESULTS FOR SAMPLE
0	SM	Brown, loose to medium dense, gravelly silty SAND, dry, no staining, no odors.	S6-1.5	Grab		
		Total depth 1.5'				
5						
10						
15						

Excavation Contractor: ESC
 Excavation Equipment: Hand Auger
 Operator: AL

Excavation Date: 10-19-2015
 ESC Representative: SEW
 Page 1 of 1

Appendix C

SPECTRA Laboratories

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

07/13/2015

Twiss Laboratories ^{NP}
 26276 Twelve Trees Lane
 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DSA-S1-SL-01
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 1

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,2,4-Trichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Bromophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.083	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloroaniline	<0.083	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	4-Methylphenol	<0.083	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitroaniline	<0.083	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitrophenol	<0.083	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.083	mg/Kg	SW846 8270D	Acenaphthene	<0.033	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.083	mg/Kg	SW846 8270D	Acenaphthylene	<0.033	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<0.33	mg/Kg	SW846 8270D	Aniline	<0.33	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Anthracene	<0.033	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Azobenzene	<0.083	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.083	mg/Kg	SW846 8270D	Benzidine	<0.66	mg/Kg	SW846 8270D
2-Chlorophenol	<0.083	mg/Kg	SW846 8270D	Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
2-Methylphenol	<0.083	mg/Kg	SW846 8270D	Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
2-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
2-Nitrophenol	<0.083	mg/Kg	SW846 8270D	Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
3,3-Dichlorobenzidine	<0.66	mg/Kg	SW846 8270D	Benzoic Acid	<0.33	mg/Kg	SW846 8270D
3-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzyl Alcohol	<0.083	mg/Kg	SW846 8270D
4,6-Dinitro-2-Methylphenol	<0.33	mg/Kg	SW846 8270D	Biphenyl	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2-Fluorophenol	53	SW846 8270D
Nitrobenzene-d6	74	SW846 8270D
Phenol-d6	74	SW846 8270D
2-Fluorobiphenyl	73	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	44	SW846 8270D
p-Terphenyl-d14	77	SW846 8270D

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Steve Hibbs, Laboratory Manager
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07/13/2015

Twiss Laboratories ^{VP}
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 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DSA-S1-SL-01
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 1

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Bis(2-Chloroethyl)Ether	<0.083	mg/Kg	SW846 8270D	N-nitrosodimethylamine	<0.083	mg/Kg	SW846 8270D
Butylbenzylphthalate	<0.083	mg/Kg	SW846 8270D	Naphthalene	<0.033	mg/Kg	SW846 8270D
Carbazole	<0.083	mg/Kg	SW846 8270D	Nitrobenzene	<0.083	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D	Pentachlorophenol	<0.083	mg/Kg	SW846 8270D
Di-n-Butylphthalate	<0.083	mg/Kg	SW846 8270D	Phenanthrene	<0.033	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	<0.083	mg/Kg	SW846 8270D	Phenol	<0.083	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D	Pyrene	<0.033	mg/Kg	SW846 8270D
Dibenzofuran	<0.083	mg/Kg	SW846 8270D	Pyridine	<0.33	mg/Kg	SW846 8270D
Dibenzothiophene	<0.083	mg/Kg	SW846 8270D	Tetrachlorophenol	<0.083	mg/Kg	SW846 8270D
Diethylphthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Chloroethoxy)Methane	<0.083	mg/Kg	SW846 8270D
Dimethyl Phthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Ethylhexyl)Phthalate	<0.083	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D	bis(2-chloroisopropyl)Ether	<0.083	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D				
Hexachlorobenzene	<0.083	mg/Kg	SW846 8270D				
Hexachlorobutadiene	<0.083	mg/Kg	SW846 8270D				
Hexachlorocyclopentadiene	<0.083	mg/Kg	SW846 8270D				
Hexachloroethane	<0.083	mg/Kg	SW846 8270D				
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D				
Isophorone	<0.083	mg/Kg	SW846 8270D				
N-Nitroso-Di-n-Propylamine	<0.083	mg/Kg	SW846 8270D				
N-Nitrosodiphenylamine	<0.083	mg/Kg	SW846 8270D				

Surrogate	Recovery	Method
2-Fluorophenol	53	SW846 8270D
Nitrobenzene-d6	74	SW846 8270D
Phenol-d6	74	SW846 8270D
2-Fluorobiphenyl	73	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	44	SW846 8270D
p-Terphenyl-d14	77	SW846 8270D

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07/13/2015

Twiss Laboratories *WP*
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 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DSA-S1-SL-02
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 2

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,2,4-Trichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Bromophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.083	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloroaniline	<0.083	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	4-Methylphenol	<0.083	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitroaniline	<0.083	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitrophenol	<0.083	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.083	mg/Kg	SW846 8270D	Acenaphthene	<0.033	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.083	mg/Kg	SW846 8270D	Acenaphthylene	<0.033	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<0.33	mg/Kg	SW846 8270D	Aniline	<0.33	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Anthracene	<0.033	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Azobenzene	<0.083	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.083	mg/Kg	SW846 8270D	Benzydine	<0.66	mg/Kg	SW846 8270D
2-Chlorophenol	<0.083	mg/Kg	SW846 8270D	Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
2-Methylphenol	<0.083	mg/Kg	SW846 8270D	Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
2-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
2-Nitrophenol	<0.083	mg/Kg	SW846 8270D	Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
3,3-Dichlorobenzidine	<0.66	mg/Kg	SW846 8270D	Benzoic Acid	<0.33	mg/Kg	SW846 8270D
3-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzyl Alcohol	<0.083	mg/Kg	SW846 8270D
4,6-Dinitro-2-Methylphenol	<0.33	mg/Kg	SW846 8270D	Biphenyl	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	46	SW846 8270D
2-Fluorobiphenyl	72	SW846 8270D
2-Fluorophenol	51	SW846 8270D
Nitrobenzene-d6	71	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	72	SW846 8270D
p-Terphenyl-d14	80	SW846 8270D

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07/13/2015

Twiss Laboratories
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 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DSA-S1-SL-02
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number:2

Analyte	Result	Units	Method
Bis(2-Chloroethyl)Ether	<0.083	mg/Kg	SW846 8270D
Butylbenzylphthalate	<0.083	mg/Kg	SW846 8270D
Carbazole	<0.083	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D
Di-n-Butylphthalate	<0.083	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	<0.083	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D
Dibenzofuran	<0.083	mg/Kg	SW846 8270D
Dibenzothiophene	<0.083	mg/Kg	SW846 8270D
Diethylphthalate	<0.083	mg/Kg	SW846 8270D
Dimethyl Phthalate	<0.083	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D
Hexachlorobenzene	<0.083	mg/Kg	SW846 8270D
Hexachlorobutadiene	<0.083	mg/Kg	SW846 8270D
Hexachlorocyclopentadiene	<0.083	mg/Kg	SW846 8270D
Hexachloroethane	<0.083	mg/Kg	SW846 8270D
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D
Isophorone	<0.083	mg/Kg	SW846 8270D
N-Nitroso-Di-n-Propylamine	<0.083	mg/Kg	SW846 8270D
N-Nitrosodiphenylamine	<0.083	mg/Kg	SW846 8270D

Analyte	Result	Units	Method
N-nitrosodimethylamine	<0.083	mg/Kg	SW846 8270D
Naphthalene	<0.033	mg/Kg	SW846 8270D
Nitrobenzene	<0.083	mg/Kg	SW846 8270D
Pentachlorophenol	<0.083	mg/Kg	SW846 8270D
Phenanthrene	<0.033	mg/Kg	SW846 8270D
Phenol	<0.083	mg/Kg	SW846 8270D
Pyrene	<0.033	mg/Kg	SW846 8270D
Pyridine	<0.33	mg/Kg	SW846 8270D
Tetrachlorophenol	<0.083	mg/Kg	SW846 8270D
bis(2-Chloroethoxy)Methane	<0.083	mg/Kg	SW846 8270D
bis(2-Ethylhexyl)Phthalate	0.234	mg/Kg	SW846 8270D
bis(2-chloroisopropyl)Ether	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	46	SW846 8270D
2-Fluorobiphenyl	72	SW846 8270D
2-Fluorophenol	51	SW846 8270D
Nitrobenzene-d6	71	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	72	SW846 8270D
p-Tempbenyl-d14	80	SW846 8270D

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07/13/2015

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Suite C
Poulsbo, WA 98370

P.O.#: 150586
Project: Seitz Property
Client ID: ESC15-DSA-S2-SL-03
Sample Matrix: Soil
Date Sampled: 06/25/2015
Date Received: 06/29/2015
Spectra Project: 2015060768
Spectra Number:3

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,2,4-Trichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Bromophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.083	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloroaniline	<0.083	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	4-Methylphenol	<0.083	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitroaniline	<0.083	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitrophenol	<0.083	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.083	mg/Kg	SW846 8270D	Acenaphthene	<0.033	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.083	mg/Kg	SW846 8270D	Acenaphthylene	<0.033	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<0.33	mg/Kg	SW846 8270D	Aniline	<0.33	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Anthracene	<0.033	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Azobenzene	<0.083	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.083	mg/Kg	SW846 8270D	Benzydine	<0.66	mg/Kg	SW846 8270D
2-Chlorophenol	<0.083	mg/Kg	SW846 8270D	Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	Benzo(a)Pyrene	0.056	mg/Kg	SW846 8270D
2-Methylphenol	<0.083	mg/Kg	SW846 8270D	Benzo(b)Fluoranthene	0.119	mg/Kg	SW846 8270D
2-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
2-Nitrophenol	<0.083	mg/Kg	SW846 8270D	Benzo(k)Fluoranthene	0.059	mg/Kg	SW846 8270D
3,3-Dichlorobenzidine	<0.66	mg/Kg	SW846 8270D	Benzoic Acid	<0.33	mg/Kg	SW846 8270D
3-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzyl Alcohol	<0.083	mg/Kg	SW846 8270D
4,6-Dinitro-2-Methylphenol	<0.33	mg/Kg	SW846 8270D	Biphenyl	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	41	SW846 8270D
2-Fluorobiphenyl	69	SW846 8270D
2-Fluorophenol	46	SW846 8270D
Nitrobenzene-d6	64	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	66	SW846 8270D
p-Terphenyl-d14	79	SW846 8270D

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Steve Hibbs, Laboratory Manager
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07/13/2015

Twiss Laboratories *WP*
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 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: BSC15-DSA-S2-SL-03
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number:3

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Bis(2-Chloroethyl)Ether	<0.083	mg/Kg	SW846 8270D	N-nitrosodimethylamine	<0.083	mg/Kg	SW846 8270D
Butylbenzylphthalate	<0.083	mg/Kg	SW846 8270D	Naphthalene	<0.033	mg/Kg	SW846 8270D
Carbazole	<0.083	mg/Kg	SW846 8270D	Nitrobenzene	<0.083	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D	Pentachlorophenol	<0.083	mg/Kg	SW846 8270D
Di-n-Butylphthalate	<0.083	mg/Kg	SW846 8270D	Phenanthrene	<0.033	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	<0.083	mg/Kg	SW846 8270D	Phenol	<0.083	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D	Pyrene	<0.033	mg/Kg	SW846 8270D
Dibenzofuran	<0.083	mg/Kg	SW846 8270D	Pyridine	<0.33	mg/Kg	SW846 8270D
Dibenzothiophene	<0.083	mg/Kg	SW846 8270D	Tetrachlorophenol	<0.083	mg/Kg	SW846 8270D
Diethylphthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Chloroethoxy)Methane	<0.083	mg/Kg	SW846 8270D
Dimethyl Phthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Ethylhexyl)Phthalate	<0.083	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D	bis(2-chloroisopropyl)Ether	<0.083	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D				
Hexachlorobenzene	<0.083	mg/Kg	SW846 8270D				
Hexachlorobutadiene	<0.083	mg/Kg	SW846 8270D				
Hexachlorocyclopentadiene	<0.083	mg/Kg	SW846 8270D				
Hexachloroethane	<0.083	mg/Kg	SW846 8270D				
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D				
Isophorone	<0.083	mg/Kg	SW846 8270D				
N-Nitroso-Di-n-Propylamine	<0.083	mg/Kg	SW846 8270D				
N-Nitrosodiphenylamine	<0.083	mg/Kg	SW846 8270D				

Surrogate	Recovery	Method
2,4,6-Tribromophenol	41	SW846 8270D
2-Fluorobiphenyl	69	SW846 8270D
2-Fluorophenol	46	SW846 8270D
Nitrobenzene-d6	64	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	66	SW846 8270D
p-Terphenyl-d14	79	SW846 8270D

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 26276 Twelve Trees Lane
 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DSA-S2-SL-04
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 4

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,2,4-Trichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.083	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloroaniline	<0.083	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Methylphenol	<0.083	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitroaniline	<0.083	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitrophenol	<0.083	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.083	mg/Kg	SW846 8270D	Acenaphthene	<0.033	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.083	mg/Kg	SW846 8270D	Acenaphthylene	<0.033	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<0.33	mg/Kg	SW846 8270D	Aniline	<0.33	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Anthracene	<0.033	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Azobenzene	<0.083	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.083	mg/Kg	SW846 8270D	Benzidine	<0.66	mg/Kg	SW846 8270D
2-Chlorophenol	<0.083	mg/Kg	SW846 8270D	Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
2-Methylphenol	<0.083	mg/Kg	SW846 8270D	Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
2-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
2-Nitrophenol	<0.083	mg/Kg	SW846 8270D	Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
3,3-Dichlorobenzidine	<0.66	mg/Kg	SW846 8270D	Benzoic Acid	<0.33	mg/Kg	SW846 8270D
3-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzyl Alcohol	<0.083	mg/Kg	SW846 8270D
4,6-Dinitro-2-Methylphenol	<0.33	mg/Kg	SW846 8270D	Biphenyl	<0.083	mg/Kg	SW846 8270D
4-Bromophenyl-phenylether	<0.083	mg/Kg	SW846 8270D	Bis(2-Chloroethyl)Ether	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2-Fluorophenol	57	SW846 8270D
Nitrobenzene-d6	78	SW846 8270D
Phenol-d6	79	SW846 8270D
2-Fluorobiphenyl	76	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	44	SW846 8270D
p-Terphenyl-d14	89	SW846 8270D

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 a14/sgh



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07/13/2015

Twiss Laboratories *WP*
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 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DSA-S2-SL-04
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number:4

Analyte	Result	Units	Method
Butylbenzylphthalate	<0.083	mg/Kg	SW846 8270D
Carbazole	<0.083	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D
Di-n-Butylphthalate	<0.083	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	<0.083	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D
Dibenzofuran	<0.083	mg/Kg	SW846 8270D
Dibenzothiophene	<0.083	mg/Kg	SW846 8270D
Diethylphthalate	<0.083	mg/Kg	SW846 8270D
Dimethyl Phthalate	<0.083	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D
Hexachlorobenzene	<0.083	mg/Kg	SW846 8270D
Hexachlorobutadiene	<0.083	mg/Kg	SW846 8270D
Hexachlorocyclopentadiene	<0.083	mg/Kg	SW846 8270D
Hexachloroethane	<0.083	mg/Kg	SW846 8270D
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D
Isophorone	<0.083	mg/Kg	SW846 8270D
N-Nitroso-Di-n-Propylamine	<0.083	mg/Kg	SW846 8270D
N-Nitrosodiphenylamine	<0.083	mg/Kg	SW846 8270D
N-nitrosodimethylamine	<0.083	mg/Kg	SW846 8270D

Analyte	Result	Units	Method
Naphthalene	<0.033	mg/Kg	SW846 8270D
Nitrobenzene	<0.083	mg/Kg	SW846 8270D
Pentachlorophenol	<0.083	mg/Kg	SW846 8270D
Phenanthrene	<0.033	mg/Kg	SW846 8270D
Phenol	<0.083	mg/Kg	SW846 8270D
Pyrene	<0.033	mg/Kg	SW846 8270D
Pyridine	<0.33	mg/Kg	SW846 8270D
Tetrachlorophenol	<0.083	mg/Kg	SW846 8270D
bis(2-Chloroethoxy)Methane	<0.083	mg/Kg	SW846 8270D
bis(2-Ethylhexyl)Phthalate	<0.083	mg/Kg	SW846 8270D
bis(2-chloroisopropyl)Ether	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2-Fluorophenol	57	SW846 8270D
Nitrobenzene-d6	78	SW846 8270D
Phenol-d6	79	SW846 8270D
2-Fluorobiphenyl	76	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	44	SW846 8270D
p-Terphenyl-d14	89	SW846 8270D

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07/13/2015

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 26276 Twelve Trees Lane
 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DSA-S3-SL-05
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number:5

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,2,4-Trichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Bromophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.083	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloroaniline	<0.083	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	4-Methylphenol	<0.083	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitroaniline	<0.083	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitrophenol	<0.083	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.083	mg/Kg	SW846 8270D	Acenaphthene	<0.033	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.083	mg/Kg	SW846 8270D	Acenaphthylene	<0.033	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<0.33	mg/Kg	SW846 8270D	Aniline	<0.33	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Anthracene	<0.033	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Azobenzene	<0.083	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.083	mg/Kg	SW846 8270D	Benzidine	<0.66	mg/Kg	SW846 8270D
2-Chlorophenol	<0.083	mg/Kg	SW846 8270D	Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
2-Methylphenol	<0.083	mg/Kg	SW846 8270D	Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
2-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
2-Nitrophenol	<0.083	mg/Kg	SW846 8270D	Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
3,3-Dichlorobenzidine	<0.66	mg/Kg	SW846 8270D	Benzoic Acid	<0.33	mg/Kg	SW846 8270D
3-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzyl Alcohol	<0.083	mg/Kg	SW846 8270D
4,6-Dinitro-2-Methylphenol	<0.33	mg/Kg	SW846 8270D	Biphenyl	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	50	SW846 8270D
2-Fluorobiphenyl	82	SW846 8270D
2-Fluorophenol	58	SW846 8270D
Nitrobenzene-d6	80	SW846 8270D

Surrogate	Recovery	Method
Pbenol-d6	81	SW846 8270D
p-Terphenyl-d14	82	SW846 8270D

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Twiss Laboratories ^{7P}
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 Suite C
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P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DSA-S3-SL-05
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 5

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
Bis(2-Chloroethyl)Ether	<0.083	mg/Kg	SW846 8270D	N-nitrosodimethylamine	<0.083	mg/Kg	SW846 8270D
Butylbenzylphthalate	<0.083	mg/Kg	SW846 8270D	Naphthalene	<0.033	mg/Kg	SW846 8270D
Carbazole	<0.083	mg/Kg	SW846 8270D	Nitrobenzene	<0.083	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D	Pentachlorophenol	<0.083	mg/Kg	SW846 8270D
Di-n-Butylphthalate	<0.083	mg/Kg	SW846 8270D	Phenanthrene	<0.033	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	<0.083	mg/Kg	SW846 8270D	Phenol	<0.083	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D	Pyrene	<0.033	mg/Kg	SW846 8270D
Dibenzofuran	<0.083	mg/Kg	SW846 8270D	Pyridine	<0.33	mg/Kg	SW846 8270D
Dibenzothiophene	<0.083	mg/Kg	SW846 8270D	Tetrachlorophenol	<0.083	mg/Kg	SW846 8270D
Diethylphthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Chloroethoxy)Methane	<0.083	mg/Kg	SW846 8270D
Dimethyl Phthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Ethylhexyl)Phthalate	<0.083	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D	bis(2-chloroisopropyl)Ether	<0.083	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D				
Hexachlorobenzene	<0.083	mg/Kg	SW846 8270D				
Hexachlorobutadiene	<0.083	mg/Kg	SW846 8270D				
Hexachlorocyclopentadiene	<0.083	mg/Kg	SW846 8270D				
Hexachloroethane	<0.083	mg/Kg	SW846 8270D				
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D				
Isophorone	<0.083	mg/Kg	SW846 8270D				
N-Nitroso-Di-n-Propylamine	<0.083	mg/Kg	SW846 8270D				
N-Nitrosodiphenylamine	<0.083	mg/Kg	SW846 8270D				

Surrogate	Recovery	Method
2,4,6-Tribromophenol	50	SW846 8270D
2-Fluorobiphenyl	82	SW846 8270D
2-Fluorophenol	58	SW846 8270D
Nitrobenzene-d6	80	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	81	SW846 8270D
p-Terphenyl-d14	82	SW846 8270D

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07/13/2015

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 26276 Twelve Trees Lane
 Suite C
 Poulsbo, WA 98370


P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DSA-S4-SL-07
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 7

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,2,4-Trichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Bromophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.083	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloroaniline	<0.083	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	4-Methylphenol	<0.083	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitroaniline	<0.083	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitrophenol	<0.083	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.083	mg/Kg	SW846 8270D	Acenaphthene	<0.033	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.083	mg/Kg	SW846 8270D	Acenaphthylene	<0.033	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<0.33	mg/Kg	SW846 8270D	Aniline	<0.33	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Anthracene	<0.033	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Azobenzene	<0.083	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.083	mg/Kg	SW846 8270D	Benzidine	<0.66	mg/Kg	SW846 8270D
2-Chlorophenol	<0.083	mg/Kg	SW846 8270D	Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
2-Methylphenol	<0.083	mg/Kg	SW846 8270D	Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
2-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
2-Nitrophenol	<0.083	mg/Kg	SW846 8270D	Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
3,3-Dichlorobenzidine	<0.66	mg/Kg	SW846 8270D	Benzoic Acid	<0.33	mg/Kg	SW846 8270D
3-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzyl Alcohol	<0.083	mg/Kg	SW846 8270D
4,6-Dinitro-2-Methylphenol	<0.33	mg/Kg	SW846 8270D	Biphenyl	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	45	SW846 8270D
2-Fluorobiphenyl	77	SW846 8270D
2-Fluorophenol	54	SW846 8270D
Nitrobenzene-d6	76	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	78	SW846 8270D
p-Terphenyl-d14	76	SW846 8270D

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07/13/2015

Twiss Laboratories 
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 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DSA-S4-SL-07
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 7

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Bis(2-Chloroethyl)Ether	<0.083	mg/Kg	SW846 8270D	N-nitrosodimethylamine	<0.083	mg/Kg	SW846 8270D
Butylbenzylphthalate	<0.083	mg/Kg	SW846 8270D	Naphthalene	<0.033	mg/Kg	SW846 8270D
Carbazole	<0.083	mg/Kg	SW846 8270D	Nitrobenzene	<0.083	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D	Pentachlorophenol	<0.083	mg/Kg	SW846 8270D
Di-n-Butylphthalate	<0.083	mg/Kg	SW846 8270D	Phenanthrene	<0.033	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	<0.083	mg/Kg	SW846 8270D	Phenol	<0.083	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D	Pyrene	<0.033	mg/Kg	SW846 8270D
Dibenzofuran	<0.083	mg/Kg	SW846 8270D	Pyridine	<0.33	mg/Kg	SW846 8270D
Dibenzothiophene	<0.083	mg/Kg	SW846 8270D	Tetrachlorophenol	<0.083	mg/Kg	SW846 8270D
Diethylphthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Chloroethoxy)Methane	<0.083	mg/Kg	SW846 8270D
Dimethyl Phthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Ethylhexyl)Phthalate	<0.083	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D	bis(2-chloroisopropyl)Ether	<0.083	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D				
Hexachlorobenzene	<0.083	mg/Kg	SW846 8270D				
Hexachlorobutadiene	<0.083	mg/Kg	SW846 8270D				
Hexachlorocyclopentadiene	<0.083	mg/Kg	SW846 8270D				
Hexachloroethane	<0.083	mg/Kg	SW846 8270D				
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D				
Isophorone	<0.083	mg/Kg	SW846 8270D				
N-Nitroso-Di-n-Propylamine	<0.083	mg/Kg	SW846 8270D				
N-Nitrosodiphenylamine	<0.083	mg/Kg	SW846 8270D				

Surrogate	Recovery	Method
2,4,6-Tribromophenol	45	SW846 8270D
2-Fluorobiphenyl	77	SW846 8270D
2-Fluorophenol	54	SW846 8270D
Nitrobenzene-d6	76	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	78	SW846 8270D
p-Terphenyl-d14	76	SW846 8270D

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07/13/2015

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 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DPI-S5-SL-09
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number:9

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,2,4-Trichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Bromophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.083	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloroaniline	<0.083	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	4-Methylphenol	<0.083	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitroaniline	<0.083	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitrophenol	<0.083	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.083	mg/Kg	SW846 8270D	Acenaphthene	<0.033	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.083	mg/Kg	SW846 8270D	Acenaphthylene	<0.033	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<0.33	mg/Kg	SW846 8270D	Aniline	<0.33	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Anthracene	<0.033	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Azobenzene	<0.083	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.083	mg/Kg	SW846 8270D	Benzidine	<0.66	mg/Kg	SW846 8270D
2-Chlorophenol	<0.083	mg/Kg	SW846 8270D	Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
2-Methylphenol	<0.083	mg/Kg	SW846 8270D	Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
2-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
2-Nitrophenol	<0.083	mg/Kg	SW846 8270D	Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
3,3-Dichlorobenzidine	<0.66	mg/Kg	SW846 8270D	Benzoic Acid	<0.33	mg/Kg	SW846 8270D
3-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzyl Alcohol	<0.083	mg/Kg	SW846 8270D
4,6-Dinitro-2-Methylphenol	<0.33	mg/Kg	SW846 8270D	Biphenyl	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	50	SW846 8270D
2-Fluorobiphenyl	79	SW846 8270D
2-Fluorophenol	55	SW846 8270D
Nitrobenzene-d6	76	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	78	SW846 8270D
p-Terphenyl-d14	86	SW846 8270D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
 a14/sgh



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07/13/2015

Twiss Laboratories *WP*
 26276 Twelve Trees Lane
 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DPI-S5-SL-09
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 9

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Bis(2-Chloroethyl)Ether	<0.083	mg/Kg	SW846 8270D	N-nitrosodimethylamine	<0.083	mg/Kg	SW846 8270D
Butylbenzylphthalate	<0.083	mg/Kg	SW846 8270D	Naphthalene	<0.033	mg/Kg	SW846 8270D
Carbazole	<0.083	mg/Kg	SW846 8270D	Nitrobenzene	<0.083	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D	Pentachlorophenol	<0.083	mg/Kg	SW846 8270D
Di-n-Butylphthalate	<0.083	mg/Kg	SW846 8270D	Phenanthrene	<0.033	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	<0.083	mg/Kg	SW846 8270D	Phenol	<0.083	mg/Kg	SW846 8270D
Dibenz(a,l)Anthracene	<0.033	mg/Kg	SW846 8270D	Pyrene	<0.033	mg/Kg	SW846 8270D
Dibenzofuran	<0.083	mg/Kg	SW846 8270D	Pyridine	<0.33	mg/Kg	SW846 8270D
Dibenzothiophene	<0.083	mg/Kg	SW846 8270D	Tetrachlorophenol	<0.083	mg/Kg	SW846 8270D
Diethylphthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Chloroethoxy)Methane	<0.083	mg/Kg	SW846 8270D
Dimethyl Phthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Ethylhexyl)Phthalate	<0.083	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D	bis(2-chloroisopropyl)Ether	<0.083	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D				
Hexachlorobenzene	<0.083	mg/Kg	SW846 8270D				
Hexachlorobutadiene	<0.083	mg/Kg	SW846 8270D				
Hexachlorocyclopentadiene	<0.083	mg/Kg	SW846 8270D				
Hexachloroethane	<0.083	mg/Kg	SW846 8270D				
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D				
Isophorone	<0.083	mg/Kg	SW846 8270D				
N-Nitroso-Di-n-Propylamine	<0.083	mg/Kg	SW846 8270D				
N-Nitrosodiphenylamine	<0.083	mg/Kg	SW846 8270D				

Surrogate	Recovery	Method
2,4,6-Tribromophenol	50	SW846 8270D
2-Fluorobiphenyl	79	SW846 8270D
2-Fluorophenol	55	SW846 8270D
Nitrobenzene-d6	76	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	78	SW846 8270D
p-Terphenyl-d14	86	SW846 8270D

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 a14/sgh

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07/13/2015

Twiss Laboratories *WP*
 26276 Twelve Trees Lane
 Suite C
 Poulsbo, WA 98370


P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-DP2-S6-SL-11
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 11

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,2,4-Trichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Bromophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.083	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloroaniline	<0.083	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	4-Methylphenol	<0.083	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitroaniline	<0.083	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitrophenol	<0.083	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.083	mg/Kg	SW846 8270D	Acenaphthene	<0.033	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.083	mg/Kg	SW846 8270D	Acenaphthylene	<0.033	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<0.33	mg/Kg	SW846 8270D	Aniline	<0.33	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Anthracene	<0.033	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Azobenzene	<0.083	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.083	mg/Kg	SW846 8270D	Benzidine	<0.66	mg/Kg	SW846 8270D
2-Chlorophenol	<0.083	mg/Kg	SW846 8270D	Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
2-Methylphenol	<0.083	mg/Kg	SW846 8270D	Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
2-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
2-Nitrophenol	<0.083	mg/Kg	SW846 8270D	Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
3,3-Dichlorobenzidine	<0.66	mg/Kg	SW846 8270D	Benzoic Acid	<0.33	mg/Kg	SW846 8270D
3-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzyl Alcohol	<0.083	mg/Kg	SW846 8270D
4,6-Dinitro-2-Methylphenol	<0.33	mg/Kg	SW846 8270D	Biphenyl	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	44	SW846 8270D
2-Fluorobiphenyl	71	SW846 8270D
2-Fluorophenol	50	SW846 8270D
Nitrobenzene-d6	70	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	71	SW846 8270D
p-Terphenyl-d14	74	SW846 8270D

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 Steve Hibbs, Laboratory Manager
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07/13/2015

Twiss Laboratories *TP*
26276 Twelve Trees Lane
Suite C
Poulsbo, WA 98370

P.O.#: 150586
Project: Seitz Property
Client ID: ESC15-DP2-S6-SL-11
Sample Matrix: Soil
Date Sampled: 06/25/2015
Date Received: 06/29/2015
Spectra Project: 2015060768
Spectra Number: 11

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Bis(2-Chloroethyl)Ether	<0.083	mg/Kg	SW846 8270D	N-nitrosodimethylamine	<0.083	mg/Kg	SW846 8270D
Butylbenzylphthalate	<0.083	mg/Kg	SW846 8270D	Naphthalene	<0.033	mg/Kg	SW846 8270D
Carbazole	<0.083	mg/Kg	SW846 8270D	Nitrobenzene	<0.083	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D	Pentachlorophenol	<0.083	mg/Kg	SW846 8270D
Di-n-Butylphthalate	<0.083	mg/Kg	SW846 8270D	Phenanthrene	<0.033	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	<0.083	mg/Kg	SW846 8270D	Phenol	<0.083	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D	Pyrene	<0.033	mg/Kg	SW846 8270D
Dibenzofuran	<0.083	mg/Kg	SW846 8270D	Pyridine	<0.33	mg/Kg	SW846 8270D
Dibenzothiophene	<0.083	mg/Kg	SW846 8270D	Tetrachlorophenol	<0.083	mg/Kg	SW846 8270D
Diethylphthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Chloroethoxy)Methane	<0.083	mg/Kg	SW846 8270D
Dimethyl Phthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Ethylhexyl)Phthalate	<0.083	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D	bis(2-chloroisopropyl)Ether	<0.083	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D				
Hexachlorobenzene	<0.083	mg/Kg	SW846 8270D				
Hexachlorobutadiene	<0.083	mg/Kg	SW846 8270D				
Hexachlorocyclopentadiene	<0.083	mg/Kg	SW846 8270D				
Hexachloroethane	<0.083	mg/Kg	SW846 8270D				
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D				
Isophorone	<0.083	mg/Kg	SW846 8270D				
N-Nitroso-Di-n-Propylamine	<0.083	mg/Kg	SW846 8270D				
N-Nitrosodiphenylamine	<0.083	mg/Kg	SW846 8270D				

Surrogate	Recovery	Method
2,4,6-Tribromophenol	44	SW846 8270D
2-Fluorobiphenyl	71	SW846 8270D
2-Fluorophenol	50	SW846 8270D
Nitrobenzene-d6	70	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	71	SW846 8270D
p-Terphenyl-d14	74	SW846 8270D

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Steve Hibbs, Laboratory Manager
a14/sgb



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07/16/2015

Twiss Laboratories ^{NP}
 26276 Twelve Trees Lane
 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-SP5-S7-SL-13
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 13

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,2,4-Trichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Bromophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.083	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloroaniline	<0.083	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	4-Methylphenol	<0.083	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitroaniline	<0.083	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitrophenol	<0.083	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.083	mg/Kg	SW846 8270D	Acenaphthene	<0.033	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.083	mg/Kg	SW846 8270D	Acenaphthylene	<0.033	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<0.33	mg/Kg	SW846 8270D	Aniline	<0.33	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Anthracene	<0.033	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Azobenzene	<0.083	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.083	mg/Kg	SW846 8270D	Benzidine	<0.66	mg/Kg	SW846 8270D
2-Chlorophenol	<0.083	mg/Kg	SW846 8270D	Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
2-Methylphenol	<0.083	mg/Kg	SW846 8270D	Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
2-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
2-Nitrophenol	<0.083	mg/Kg	SW846 8270D	Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
3,3-Dichlorobenzidine	<0.66	mg/Kg	SW846 8270D	Benzoic Acid	<0.33	mg/Kg	SW846 8270D
3-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzyl Alcohol	<0.083	mg/Kg	SW846 8270D
4,6-Dinitro-2-Methylphenol	<0.33	mg/Kg	SW846 8270D	Biphenyl	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	53	SW846 8270D
2-Fluorobiphenyl	88	SW846 8270D
2-Fluorophenol	60	SW846 8270D
Nitrobenzene-d6	83	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	86	SW846 8270D
p-Terphenyl-d14	94	SW846 8270D

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
Steve Hibbs, Laboratory Manager
 a14/mlh



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07/16/2015

Twiss Laboratories 
 26276 Twelve Trees Lane
 Suite C
 Poulsbo, WA 98370

P.O.#: 150586
 Project: Seitz Property
 Client ID: ESC15-SP5-S7-SL-13
 Sample Matrix: Soil
 Date Sampled: 06/25/2015
 Date Received: 06/29/2015
 Spectra Project: 2015060768
 Spectra Number: 13

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Bis(2-Chloroethyl)Ether	<0.083	mg/Kg	SW846 8270D	N-nitrosodimethylamine	<0.083	mg/Kg	SW846 8270D
Butylbenzylphthalate	<0.083	mg/Kg	SW846 8270D	Naphthalene	<0.033	mg/Kg	SW846 8270D
Carbazole	<0.083	mg/Kg	SW846 8270D	Nitrobenzene	<0.083	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D	Pentachlorophenol	<0.083	mg/Kg	SW846 8270D
Di-n-Butylphthalate	<0.083	mg/Kg	SW846 8270D	Phenanthrene	<0.033	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	<0.083	mg/Kg	SW846 8270D	Phenol	<0.083	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D	Pyrene	<0.033	mg/Kg	SW846 8270D
Dibenzofuran	<0.083	mg/Kg	SW846 8270D	Pyridine	<0.33	mg/Kg	SW846 8270D
Dibenzothiophene	<0.083	mg/Kg	SW846 8270D	Tetrachlorophenol	<0.083	mg/Kg	SW846 8270D
Diethylphthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Chloroethoxy)Methane	<0.083	mg/Kg	SW846 8270D
Dimethyl Phthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Ethylhexyl)Phthalate	<0.083	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D	bis(2-chloroisopropyl)Ether	<0.083	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D				
Hexachlorobenzene	<0.083	mg/Kg	SW846 8270D				
Hexachlorobutadiene	<0.083	mg/Kg	SW846 8270D				
Hexachlorocyclopentadiene	<0.083	mg/Kg	SW846 8270D				
Hexachloroethane	<0.083	mg/Kg	SW846 8270D				
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D				
Isophorone	<0.083	mg/Kg	SW846 8270D				
N-Nitroso-Di-n-Propylamine	<0.083	mg/Kg	SW846 8270D				
N-Nitrosodiphenylamine	<0.083	mg/Kg	SW846 8270D				

Surrogate	Recovery	Method
2,4,6-Tribromophenol	53	SW846 8270D
2-Fluorobiphenyl	88	SW846 8270D
2-Fluorophenol	60	SW846 8270D
Nitrobenzene-d6	83	SW846 8270D

Surrogate	Recovery	Method
Phenol-d6	86	SW846 8270D
p-Terphenyl-d14	94	SW846 8270D

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Steve Hibbs, Laboratory Manager
 a14/mlh



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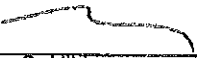
July 13, 2015

Twiss Laboratories *MP*
26276 Twelve Trees Ln, Suite C
Poulsbo, WA 98370

Spectra Project # 2015060768
Sample Spiked: Method Blank
Date Extracted: 7/10/2015
Date Analyzed: 7/10/2015
Units: mg/Kg
Applies to Spectra #s: #4

GCMS Semi-Volatile Organic Analysis, Method 8270D (Scan Mode) Blank Spike (LCS) Results in Soil/ Solids

Compound	Blank Conc.	Spike Added	LCS Conc.	LCS %Rec
Phenol	<0.08	2.50	1.52	61
2-Chlorophenol	<0.08	2.50	1.38	55
1,4-Dichlorobenzene	<0.08	1.67	0.82	49
N-Nitroso-Di-N-Propylamine	<0.08	1.67	1.21	73
1,2,4-Trichlorobenzene	<0.08	1.67	0.87	52
4-Chloro-3-Methylphenol	<0.08	2.50	1.63	65
Acenaphthene	<0.03	1.67	0.95	57
2,4-Dinitrotoluene	<0.08	1.67	0.81	49
4-Nitrophenol	<0.08	2.50	1.68	67
Pentachlorophenol	<0.08	2.50	0.37	15
Pyrene	<0.03	1.67	1.24	74
Surrogates				%Rec
2-Fluorophenol				61
Phenol-d5				72
Nitrobenzene-d5				71
2-Fluorobiphenyl				72
2,4,6-Tribromophenol				42
p-Terphenyl-d14				83


Steven G. Hibbs
Laboratory Manager

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July 13, 2015

Twiss Laboratories
26276 Twelve Trees Ln, Suite C
Poulsbo, WA 98370

Sample Matrix:
Spectra Project:
Applies to:

Bolt
2015060755
#4

Date Extracted:
Date Analyzed:
Dilution:
< = less than

7/10/2015
7/10/2015
1

SEMIVOLATILE ORGANIC ANALYSIS METHOD BLANK RESULTS

Compound	mg/Kg	Compound	METHOD 8270 mg/Kg
Pyridine	< 0.33	Acenaphthene	< 0.03
N-Nitrosodimethylamine	< 0.08	2,4-Dinitrophenol	< 0.33
Aniline	< 0.33	4-Nitrophenol	< 0.08
Phenol	< 0.08	Dibenzofuran	< 0.08
bis(2-Chloroethyl)Ether	< 0.08	2,4-Dinitrotoluene	< 0.08
2-Chlorophenol	< 0.08	2,6-Dinitrotoluene	< 0.08
1,3-Dichlorobenzene	< 0.08	Diethylphthalate	< 0.08
1,4-Dichlorobenzene	< 0.08	4-Chlorophenyl-phenylether	< 0.08
Benzyl Alcohol	< 0.08	Fluorene	< 0.03
1,2-Dichlorobenzene	< 0.08	4-Nitroaniline	< 0.08
2-Methylphenol	< 0.08	4,6-Dinitro-2-Methylphenol	< 0.33
bis(2-Chloroisopropyl)Ether	< 0.08	Ni-Nitrosodiphenylamine	< 0.08
4-Methylphenol	< 0.08	4-Bromophenyl-phenylether	< 0.08
N-Nitroso-di-n-Propylamine	< 0.08	Hexachlorobenzene	< 0.08
Hexachloroethane	< 0.08	Pentachlorophenol	< 0.08
Nitrobenzene	< 0.08	Phenanthrene	< 0.03
Isophorone	< 0.08	Anthracene	< 0.03
2-Nitrophenol	< 0.08	Di-n-butylphthalate	< 0.08
2,4-Dimethylphenol	< 0.08	Fluoranthene	< 0.03
Benzoic Acid	< 0.33	Benzo(a)pyrene	< 0.67
bis(2-Chloroethoxy)methane	< 0.08	Pyrene	< 0.03
2,4-Dichlorophenol	< 0.08	Butylbenzylphthalate	< 0.08
1,2,4-Trichlorobenzene	< 0.08	3,3-Dichlorobenzidine	< 0.67
Naphthalene	< 0.03	Benzo(a)anthracene	< 0.03
4-Chloroaniline	< 0.08	bis(2-ethylhexyl)phthalate	< 0.08
Hexachlorobutadiene	< 0.08	Chrysene	< 0.03
4-Chloro-3-Methylphenol	< 0.08	Di-n-octyl phthalate	< 0.08
2-Methylnaphthalene	< 0.03	Benzo(b)fluoranthene	< 0.03
Hexachlorocyclopentadiene	< 0.08	Benzo(k)fluoranthene	< 0.03
2,4,6-Trichlorophenol	< 0.08	Benzo(a)pyrene	< 0.03
2,4,6-Trichlorophenol	< 0.08	Indeno(1,2,3-c,d)pyrene	< 0.03
2-Chloronaphthalene	< 0.08	Dibenzo(a,h)anthracene	< 0.03
2-Nitroaniline	< 0.08	Benzo(g,h,i)perylene	< 0.03
Dimethyl Phthalate	< 0.08	Carbazole	< 0.08
Acenaphthylene	< 0.03	Biphenyl	< 0.08
3-Nitroaniline	< 0.08	1-Methylnaphthalene	< 0.08
		Dibenzothophene	< 0.08
		Tetrachlorophenol	< 0.08

SURROGATE RECOVERIES

Nitrobenzene-d5	69 %	2-Fluorophenol	49 %
2-Fluorobiphenyl	68 %	Phenol-d5	70 %
p-Terphenyl-d14	84 %	2,4,6-Tribromophenol	35 %

Steven G. Hibbs
Laboratory Manager

Company/Client: Enviro Sound Consulting

Address: 3388 Byron Street Ste 200

City: Silverdale State: WA Zip: 98383

Project Manager/Report To: Shawn Williams

Project Name: Seitz Property Sampled by: SEW/AL

Telephone No: 360.698.5950 Fax No: 360.698.5929

Email address: Shawn@EnviroSound.net

Test Parameters Requested

Number of Containers	RCRA Metals: As Ba Cd Cr Pb Hg Se Ag	Priority Pollutant Metals:	Sb As Be Cr Cu Pb Hg Ni Se Ag Tl Zn	503 Regs: As Cd Cu Pb Hg Mo Ni Se Zn	Metals (Specify):	BOD CBOD COD	HEM SGT (Oil & Grease/TPH)	Solids: TDS TSS TVS TVSS TS	Turbidity pH	Nitrate-N Ammonia-N Orthophosphate-P	Nitrate+Nitrite-N	TKN Total Phosphorous	Fecal Coliform: MPN or MF	Ag Soil: SAP Initial SAP crop:
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Circle the test results that are above the applicable regulatory standard	Lab ID	Date	Time	Matrix	Hazardous
2 X	150586-01	6-15-15	0850	Soil	no
1	-02		0905		
2 X	-03		0920		
1	-04		0935		
1	-05		0942		
1	-06		0955		
1	-07		1005		
1	-08		1012		
2 X	-09		1020		
1	-10		1030		
2 X	-11		1040		
1	-12		1047		

Special Instructions: Hold all samples pending initial test results.

Signature/Name, Supply Date, Time

Relinquished by: Shawn Williams (print) Company: ESC Date: 6-25 Time: 1340
 Received by: Angela Barcus (print) Company: Twiss Date: 6/25/15 Time: 140
 Relinquished by: _____ (print) Company: _____ Date: _____ Time: _____
 Received by: _____ (print) Company: _____ Date: _____ Time: _____

Routine Disposal
 Return to Client
 Hazardous sample disposal (Cost of disposal will be billed to client)

Sample Receipt:
 Total # of containers _____
 COC seals present? intact?
 Temp at receipt? _____ °C
 Samples intact?
 Received Via: _____
 Standard (10 Business days)
 Rush (specify date needed):
 Other (specify) _____
 ‡ additional charges may apply

Company/Client: Enviro Sound Consulting

Address: 3388 Byron Street Ste 200

City: Silverdale State: WA Zip: 98383

Project Information

Project Manager/Report To: Shawn Williams
 Project Name: Seitz Property Sampled by: SEW/AL
 Telephone No: 360.698.5950 Fax No: 360.698.5929
 Email address: Shawn@EnviroSound.net

Test Parameters Required

Number of Containers	RCRA Metals: As Ba Cd Cr Pb Hg Se Ag
Priority Pollutant Metals:	SD As Be Cr Cu Pb Hg Ni Se Ag Tl Zn
503 Regs: As Cd Cu Pb Hg Mo Ni Se Zn	
Metals (Specify):	
BOD CBOD COD	
HEM SGT	(Oil & Grease/TPH)
Solids: TSS TVS TVSS TS	
Turbidity pH	
Nitrate-N Ammonia-N Orthophosphate-P	
Nitrate+Nitrite-N	
TKN Total Phosphorus	
Fecal Coliform: MPN or MF	
Ag Soil: SAP Initial SAP crop:	

Circle the desired parameters above (multiple parameters are allowed for the same line)	
1	ESC 15-SP5-57-5L-13 6-23-15 1105 50:1 150586-13 2 X
2	ESC 15-SP5-57-5L-14 6-23-15 1115 50:1 150586-14 1
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Special Instructions: Hold all samples pending initial test results

Signature/Date

Relinquished by: Shawn Williams Company: ESC Date: 6-25-15 Time: 1340
 Received by: Angela Barcus (print) Company: Twiss Date: 6/25/15 Time: 140
 Relinquished by: _____ Company: _____ Date: _____ Time: _____
 Received by: _____ Company: _____ Date: _____ Time: _____

Sample Receipt:
 Total # of containers: _____
 COC seals present? intact? _____
 Temp at receipt? _____ °C
 Samples intact? _____
 Received Via: _____
 Standard (10 Business days)
 Rush (specify date needed): # _____
 Other (specify) _____
 † additional charges may apply



Certificate of Analysis

Enviro Sound Consulting
 3388 Byron St Ste 200
 Silverdale, WA 98383

Date Received: 6/25/2015
 Date Reported: 7/13/2015
 Sampler: Shawn Williams

Project: Seitz Property

Test	Result	Units	Method	Test Date	Initials
150586-01	ESC15-DSA-S1-SL-01			Date Sampled: 6/25/2015	
Arsenic	35.1	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Barium	82.8	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Cadmium	<0.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Chromium	19.2	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Lead	1.75	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Mercury	0.04	mg/kg	EPA 7471B	6/29/2015	KW
Selenium	<1.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Silver	<0.2	mg/kg	EPA 3050B/6010 C	6/30/2015	KW

150586-03	ESC15-DSA-S2-SL-03			Date Sampled: 6/25/2015	
Arsenic	42.1	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Barium	81.0	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Cadmium	<0.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Chromium	25.1	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Lead	<0.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Mercury	<0.03	mg/kg	EPA 7471B	6/29/2015	KW
Selenium	<1.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Silver	<0.2	mg/kg	EPA 3050B/6010 C	6/30/2015	KW



Certificate of Analysis

Enviro Sound Consulting
 3388 Byron St Ste 200
 Silverdale, WA 98383

Date Received: 6/25/2015
 Date Reported: 7/13/2015
 Sampler: Shawn Williams

Project: Seitz Property

Test	Result	Units	Method	Test Date	Initials
150586-09	ESC15-DS1-S5-SL-09			Date Sampled: 6/25/2015	
Arsenic	31.3	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Barium	79.8	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Cadmium	<0.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Chromium	21.2	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Lead	3.45	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Mercury	0.04	mg/kg	EPA 7471B	6/29/2015	KW
Selenium	<1.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Silver	<0.2	mg/kg	EPA 3050B/6010 C	6/30/2015	KW

150586-11	ESC15-DP2-S6-SL-11			Date Sampled: 6/25/2015	
Arsenic	34.0	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Barium	60.8	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Cadmium	<0.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Chromium	21.9	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Lead	5.21	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Mercury	0.05	mg/kg	EPA 7471B	6/29/2015	KW
Selenium	<1.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Silver	<0.2	mg/kg	EPA 3050B/6010 C	6/30/2015	KW



Certificate of Analysis

Enviro Sound Consulting
3388 Byron St Ste 200
Silverdale, WA 98383

Date Received: 6/25/2015
Date Reported: 7/13/2015
Sampler: Shawn Williams

Project: Seitz Property

Test	Result	Units	Method	Test Date	Initials
150586-13	ESC15-SP5-S7-SL-13			Date Sampled: 6/25/2015	
Arsenic	33.8	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Barium	72.2	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Cadmium	<0.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Chromium	24.3	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Lead	<0.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Mercury	0.03	mg/kg	EPA 7471B	6/29/2015	KW
Selenium	<1.4	mg/kg	EPA 3050B/6010 C	6/30/2015	KW
Silver	<0.2	mg/kg	EPA 3050B/6010 C	6/30/2015	KW

Approved For Release

Steven G. Hibbs, Laboratory Manager



Shawn Williams
 Enviro Sound Consulting
 3388 Byron St Ste 200
 Silverdale, WA 98383

July 10, 2015

Project: Seitz Property
 Sample Date: 6/25/15 0850

Lab Work Order#: 150586
 Sample Received: 6/25/15 1340

Quality Control Report
 Laboratory Check Standard

Test Parameter	QC Sample ID	True Value mg/kg	Result mg/kg	% Recovery	Date Analyzed	Method
Arsenic	ERA Soil 90	129	117	90.6	6/30/15	EPA 3050B/6010C
Barium	ERA Soil 90	334	313	93.7	6/30/15	EPA 3050B/6010C
Cadmium	ERA Soil 90	85.2	81.2	95.3	6/30/15	EPA 3050B/6010C
Chromium	ERA Soil 90	117	111	94.7	6/30/15	EPA 3050B/6010C
Lead	ERA Soil 90	107	95.1	88.9	6/30/15	EPA 3050B/6010C
Mercury	ERA Soil 90	21.1	22.5	107	6/29/15	EPA 7471B
Selenium	ERA Soil 90	183	174	94.8	6/30/15	EPA 3050B/6010C
Silver	ERA Soil 90	54.7	47.4	86.6	6/30/15	EPA 3050B/6010C

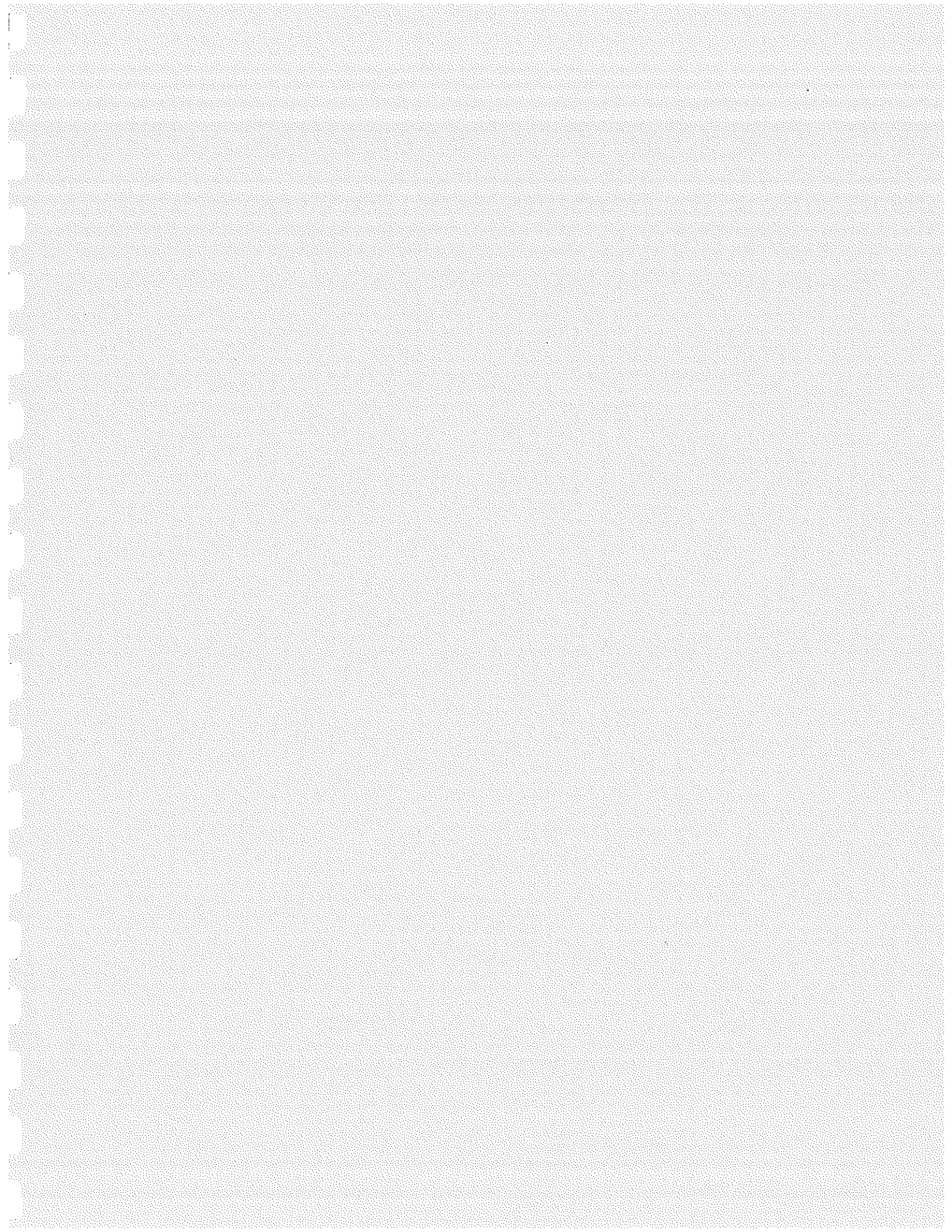
Digest Blank

Test Parameter	Blank ID	Result mg/kg	Date Analyzed	Method
Arsenic	PB27.173	<0.7	6/30/15	EPA 3050B/6010C
Barium	PB27.173	<0.4	6/30/15	EPA 3050B/6010C
Cadmium	PB27.173	<0.4	6/30/15	EPA 3050B/6010C
Chromium	PB27.173	<0.4	6/30/15	EPA 3050B/6010C
Lead	PB27.173	<0.4	6/30/15	EPA 3050B/6010C
Mercury	PB27.172	<0.03	6/29/15	EPA 7471B
Selenium	PB27.173	<1.4	6/30/15	EPA 3050B/6010C
Silver	PB27.173	<0.2	6/30/15	EPA 3050B/6010C

Approved for Release,

Steve G. Hibbs
 Laboratory Manager
 WDOE Accreditation #C594

This report is issued solely for the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis according to industry accepted practice. Twiss Laboratories or its employees are not responsible for consequential damages in any kind or in any amount.





SPECTRA Laboratories

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

08/06/2015

Twiss Laboratories *NP*
26276 Twelve Trees Lane
Suite C
Poulsbo, WA 98370

P.O.#: 151462
Project: Seitz Property
Client ID: BSC15-DSA S1-SL-1.5
Sample Matrix: Soil
Date Sampled: 07/27/2015
Date Received: 07/28/2015
Spectra Project: 2015070651
Spectra Number: 1

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,2,4-Trichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloro-3-Methylphenol	<0.083	mg/Kg	SW846 8270D
1,2-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chloroaniline	<0.083	mg/Kg	SW846 8270D
1,3-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Chlorophenyl-phenylether	<0.083	mg/Kg	SW846 8270D
1,4-Dichlorobenzene	<0.083	mg/Kg	SW846 8270D	4-Methylphenol	<0.083	mg/Kg	SW846 8270D
2,4,5-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitroaniline	<0.083	mg/Kg	SW846 8270D
2,4,6-Trichlorophenol	<0.083	mg/Kg	SW846 8270D	4-Nitrophenol	<0.083	mg/Kg	SW846 8270D
2,4-Dichlorophenol	<0.083	mg/Kg	SW846 8270D	Acenaphthene	<0.033	mg/Kg	SW846 8270D
2,4-Dimethylphenol	<0.083	mg/Kg	SW846 8270D	Acenaphthylene	<0.033	mg/Kg	SW846 8270D
2,4-Dinitrophenol	<0.33	mg/Kg	SW846 8270D	Aniline	<0.33	mg/Kg	SW846 8270D
2,4-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Anthracene	<0.033	mg/Kg	SW846 8270D
2,6-Dinitrotoluene	<0.083	mg/Kg	SW846 8270D	Azobenzene	<0.083	mg/Kg	SW846 8270D
2-Chloronaphthalene	<0.083	mg/Kg	SW846 8270D	Benzidine	<0.66	mg/Kg	SW846 8270D
2-Chlorophenol	<0.083	mg/Kg	SW846 8270D	Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D	Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
2-Methylphenol	<0.083	mg/Kg	SW846 8270D	Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
2-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
2-Nitrophenol	<0.083	mg/Kg	SW846 8270D	Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
3,3-Dichlorobenzidine	<0.66	mg/Kg	SW846 8270D	Benzoic Acid	<0.33	mg/Kg	SW846 8270D
3-Nitroaniline	<0.083	mg/Kg	SW846 8270D	Benzyl Alcohol	<0.083	mg/Kg	SW846 8270D
4,6-Dinitro-2-Methylphenol	<0.33	mg/Kg	SW846 8270D	Biphenyl	<0.083	mg/Kg	SW846 8270D
4-Bromophenyl-phenylether	<0.083	mg/Kg	SW846 8270D	Bis(2-Chloroethyl)Ether	<0.083	mg/Kg	SW846 8270D

Surrogate	Recovery	Method
2-Fluorophenol	42	SW846 8270D
Nitrobenzene-d6	66	SW846 8270D
Phenol-d6	56	SW846 8270D
2-Fluorobiphenyl	55	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Trichlorophenol	45	SW846 8270D
p-Terphenyl-d14	62	SW846 8270D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a14/sgb

SPECTRA Laboratories

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

08/06/2015

Twiss Laboratories ^{HP}
 26276 Twelve Trees Lane
 Suite C
 Poulsbo, WA 98370

P.O.#: 151462
 Project: Seitz Property
 Client ID: ESC15-DSA S1-SL-1.5
 Sample Matrix: Soil
 Date Sampled: 07/27/2015
 Date Received: 07/28/2015
 Spectra Project: 2015070651
 Spectra Number: 1

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Butylbenzylphthalate	<0.083	mg/Kg	SW846 8270D	Naphthalene	<0.033	mg/Kg	SW846 8270D
Carbazole	<0.083	mg/Kg	SW846 8270D	Nitrobenzene	<0.083	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D	Pentachlorophenol	<0.083	mg/Kg	SW846 8270D
Di-n-Butylphthalate	<0.083	mg/Kg	SW846 8270D	Phenanthrene	<0.033	mg/Kg	SW846 8270D
Di-n-Octyl Phthalate	<0.083	mg/Kg	SW846 8270D	Phenol	<0.083	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D	Pyrene	<0.033	mg/Kg	SW846 8270D
Dibenzofuran	<0.083	mg/Kg	SW846 8270D	Pyridine	<0.33	mg/Kg	SW846 8270D
Dibenzothiophene	<0.083	mg/Kg	SW846 8270D	Tetrachlorophenol	<0.083	mg/Kg	SW846 8270D
Diethylphthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Chloroethoxy)Methane	<0.083	mg/Kg	SW846 8270D
Dimethyl Phthalate	<0.083	mg/Kg	SW846 8270D	bis(2-Ethylhexyl)Phthalate	<0.083	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D	bis(2-chloroisopropyl)Ether	<0.083	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D				
Hexachlorobenzene	<0.083	mg/Kg	SW846 8270D				
Hexachlorobutadiene	<0.083	mg/Kg	SW846 8270D				
Hexachlorocyclopentadiene	<0.083	mg/Kg	SW846 8270D				
Hexachloroethane	<0.083	mg/Kg	SW846 8270D				
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D				
Isophorone	<0.083	mg/Kg	SW846 8270D				
N-Nitroso-Di-n-Propylamine	<0.083	mg/Kg	SW846 8270D				
N-Nitrosodiphenylamine	<0.083	mg/Kg	SW846 8270D				
N-nitrosodimethylamine	<0.083	mg/Kg	SW846 8270D				

Surrogate	Recovery	Method
2-Fluorophenol	42	SW846 8270D
Nitrobenzene-d6	66	SW846 8270D
Phenol-d6	56	SW846 8270D
2-Fluorobiphenyl	55	SW846 8270D

Surrogate	Recovery	Method
2,4,6-Tribromophenol	45	SW846 8270D
p-Terphenyl-d14	62	SW846 8270D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
 sl4/hgh

SPECTRA Laboratories

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August 6, 2015

Twiss Laboratories ^{MP}
28276 Twelve Trees Ln., Ste. C
Poulsbo, WA 98370

Spectra Project # 2015070651
Sample Spiked: Method Blank
Date Extracted: 8/3/2015
Date Analyzed: 8/3/2015
Units: mg/Kg
Applies to Spectra #'s: #1

GCMS Semi-Volatile Organic Analysis, Method 8270D (Scan Mode) Blank Spike (LCS) Results In Soil/ Solids

Compound	Blank Conc.	Spike Added	LCS Conc.	LCS %Rec
Phenol	<0.08	2.50	1.77	71
2-Chlorophenol	<0.08	2.50	1.59	63
1,4-Dichlorobenzene	<0.08	1.67	0.71	43
N-Nitroso-Di-N-Propylamine	<0.08	1.67	1.49	89
1,2,4-Trichlorobenzene	<0.08	1.67	0.88	53
4-Chloro-3-Methylphenol	<0.08	2.50	1.91	76
Acenaphthene	<0.03	1.67	1.04	62
2,4-Dinitrotoluene	<0.08	1.67	0.84	50
4-Nitrophenol	<0.08	2.50	1.82	73
Pentachlorophenol	<0.08	2.50	1.73	69
Pyrene	<0.03	1.67	1.51	90
Surrogates				%Rec
2-Fluorophenol				64
Phenol-d5				87
Nitrobenzene-d5				101
2-Fluorobiphenyl				84
2,4,6-Tribromophenol				80
p-Terphenyl-d14				108


Steven G. Hibbs
Laboratory Manager



SPECTRA Laboratories

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August 6, 2015

Twiss Laboratories
28278 Twiss Ln., Ste. C
Poulsbo, WA 98370

Sample Matrix:
Spectra Project:
Applies to:

Soil
2015070451
#1

Date Extracted:
Data Analyzed:
Dilution:
< = less than

8/3/2015
8/3/2015
1

SEMIVOLATILE ORGANIC ANALYSIS METHOD BLANK RESULTS

Compound	mg/Kg	Compound	METHOD 8270 mg/Kg
Pyridine	< 0.03	Acenaphthene	< 0.03
N-Nitrosodimethylamine	< 0.08	2,4-Dinitrophenol	< 0.03
Aniline	< 0.03	4-Nitrophenol	< 0.08
Phenol	< 0.08	Dibenzofuran	< 0.08
bis(2-Chloroethyl)Ether	< 0.08	2,4-Dinitrotoluene	< 0.08
2-Chlorophenol	< 0.08	2,6-Dinitrotoluene	< 0.08
1,3-Dichlorobenzene	< 0.08	Diethylphthalate	< 0.08
1,4-Dichlorobenzene	< 0.08	4-Chlorophenyl-phenylether	< 0.08
Benzyl Alcohol	< 0.08	Fluorene	< 0.03
1,2-Dichlorobenzene	< 0.08	4-Nitroaniline	< 0.08
2-Methylphenol	< 0.08	4,6-Dinitro-2-Methylphenol	< 0.03
bis(2-Chloroisopropyl)Ether	< 0.08	N-Nitrosodiphenylamine	< 0.08
4-Methylphenol	< 0.08	4-Bromophenyl-phenylether	< 0.08
N-Nitroso-di-n-Propylamine	< 0.08	Hexachlorobenzene	< 0.08
Hexachloroethane	< 0.08	Pentachlorophenol	< 0.08
Nitrobenzene	< 0.08	Phenanthrene	< 0.03
Isophorone	< 0.03	Anthracene	< 0.03
2-Nitrophenol	< 0.03	D-n-butylphthalate	< 0.03
2,4-Dimethylphenol	< 0.03	Fluoranthene	< 0.03
Benzole Acid	< 0.03	Benzidine	< 0.07
bis(2-Chloroethoxy)methane	< 0.08	Pyrene	< 0.03
2,4-Dichlorophenol	< 0.08	Butylbenzylphthalate	< 0.08
1,2,4-Trichlorobenzene	< 0.08	3,3-Dichlorobenzidine	< 0.07
Naphthalene	< 0.03	Benzo(a)anthracene	< 0.03
4-Chloroaniline	< 0.08	bis(2-ethylhexyl)phthalate	< 0.08
Hexachlorobutadiene	< 0.08	Chrysene	< 0.03
4-Chloro-3-Methylphenol	< 0.08	Di-n-octyl phthalate	< 0.08
2-Methylnaphthalene	< 0.03	Benzo(b)fluoranthene	< 0.03
Hexachlorocyclopentadiene	< 0.08	Benzo(k)fluoranthene	< 0.03
2,4,6-Trichlorophenol	< 0.08	Benzo(e)pyrene	< 0.03
2,4,5-Trichlorophenol	< 0.08	Indeno(1,2,3-c,d)pyrene	< 0.03
2-Chloronaphthalene	< 0.08	Dibenz(o,e,h)anthracene	< 0.03
2-Nitroaniline	< 0.08	Benzo(g,h,i)perylene	< 0.03
Dimethyl Phthalate	< 0.08	Carbazole	< 0.08
Acenaphthylene	< 0.03	Biphenyl	< 0.08
3-Nitroaniline	< 0.08	1-Methylnaphthalene	< 0.08
		Dibenzofluorene	< 0.08
		Tetrachlorophenol	< 0.08

SURROGATE RECOVERIES

Nitrobenzene-d5	87 %	2-Fluorophenol	52 %
2-Fluorobiphenyl	70 %	Phenol-d5	73 %
p-Terphenyl-d14	66 %	2,4,6-Tribromophenol	48 %

Steven G. Hibbs
Laboratory Manager



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

August 6, 2015

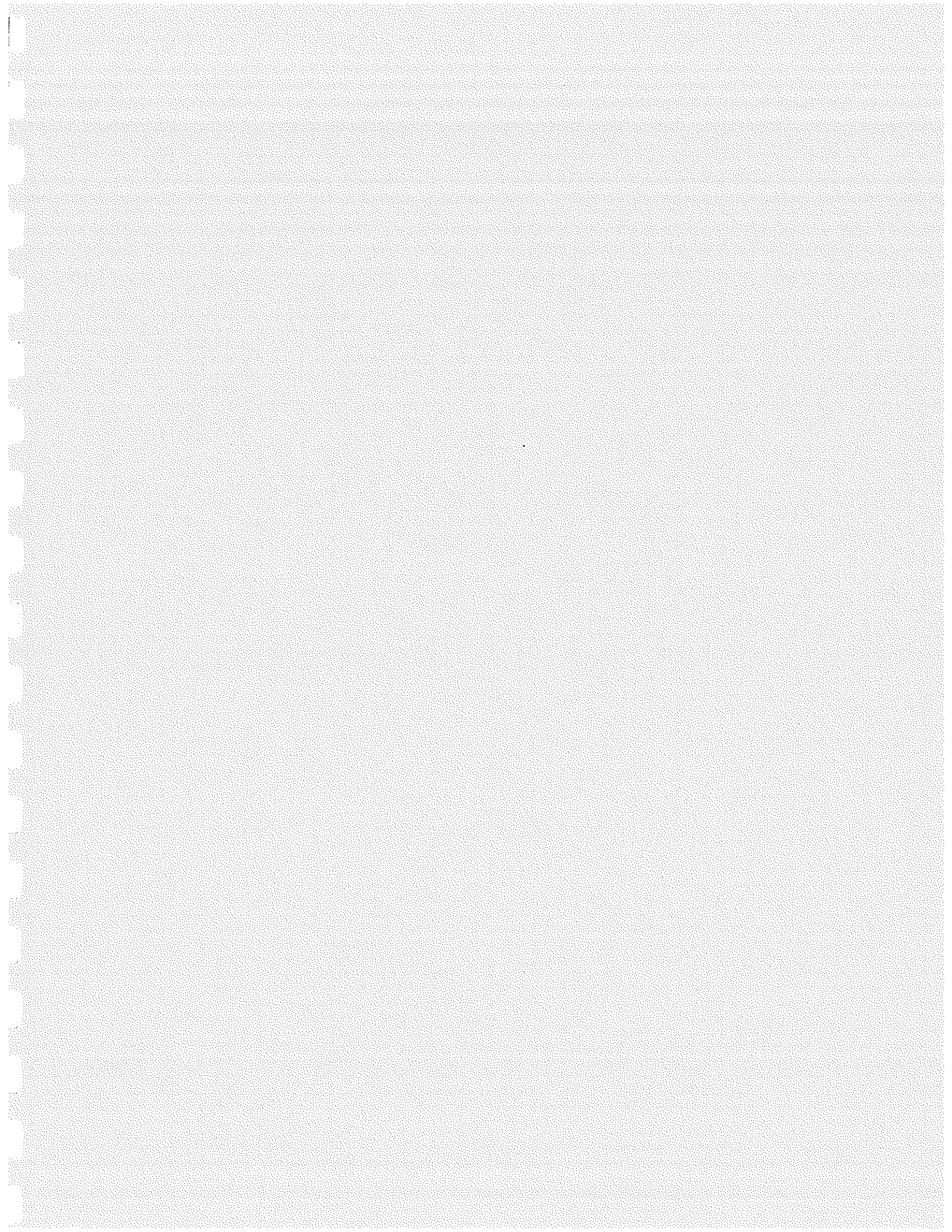
Twiss Laboratories *TP*
26276 Twelve Trees Ln., Ste. C
Poulsbo, WA 98370

Spectra Project # 2015070651
Sample Spiked: 2015070651-1
Date Extracted: 8/4/2015
Date Analyzed: 8/4/2015
Units: mg/kg wet wt.
Applies to Spectra #'s: #1

**GCMS Semi-Volatile Organic Analysis, Method 8270D (Scan Mode)
Matrix Spike/ Matrix Spike Duplicate Results In Soil**

Compound	Sample Conc.	Spike Added	MS Conc.	MS %Rec	MSD Conc	MSD %Rec	RPD
Phenol	<0.08	2.50	1.38	55	1.43	57	3.3
2-Chlorophenol	<0.08	2.50	1.17	47	1.21	48	3.6
1,4-Dichlorobenzene	<0.08	1.67	0.77	46	0.80	48	3.8
N-Nitroso-Di-N-Propylamine	<0.08	1.67	1.11	66	1.17	70	5.0
1,2,4-Trichlorobenzene	<0.08	1.67	0.77	46	0.80	48	3.8
4-Chloro-3-Methylphenol	<0.08	2.50	1.49	59	1.55	62	4.2
Acenaphthene	<0.03	1.67	0.80	48	0.80	48	0.8
2,4-Dinitrotoluene	<0.08	1.67	0.69	41	0.68	40	2.1
4-Nitrophenol	<0.08	2.50	1.58	63	1.61	64	1.9
Pentachlorophenol	<0.08	2.50	1.48	59	1.61	61	2.6
Pyrene	<0.03	1.67	1.00	60	1.03	61	2.6


Steven G. Hibbs
Laboratory Manager





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11/03/2015

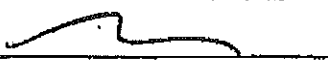
Spectra Laboratories-Kitsap, LLC *NP*
26276 Twelve Trees Lane
Suite C
Poulsbo, WA 98370

P.O.#: 153795
Project: Seitz Property
Client ID: ESC15-DSA-S5-1.5'
Sample Matrix: Soil
Date Sampled: 10/19/2015
Date Received: 10/20/2015
Spectra Project: 2015100564
Spectra Number: 1

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>
1-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D
Acenaphthene	<0.033	mg/Kg	SW846 8270D
Acenaphthylene	<0.033	mg/Kg	SW846 8270D
Anthracene	<0.033	mg/Kg	SW846 8270D
Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D
Naphthalene	<0.033	mg/Kg	SW846 8270D
Phenanthrene	<0.033	mg/Kg	SW846 8270D
Pyrene	<0.033	mg/Kg	SW846 8270D

<u>Surrogate</u>	<u>% Recovery</u>	<u>Method</u>
Nitrobenzene-d6	61	SW846 8270D
2-Fluorobiphenyl	72	SW846 8270D
p-Terphenyl-d14	86	SW846 8270D

SPECTRA LABORATORIES


Steve Hibbs, Laboratory Manager
a5/mlh

SPECTRA Laboratories

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11/03/2015

Spectra Laboratories-Kitsap, LLC ^{97P}
 26276 Twelve Trees Lane
 Suite C
 Poulsbo, WA 98370

P.O.#: 153795
 Project: Seitz Property
 Client ID: BSC15-DSA-S6-1.5'
 Sample Matrix: Soil
 Date Sampled: 10/19/2015
 Date Received: 10/20/2015
 Spectra Project: 2015100564
 Spectra Number: 2

Analyte	Result	Units	Method
1-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D
2-Methylnaphthalene	<0.033	mg/Kg	SW846 8270D
Acenaphthene	<0.033	mg/Kg	SW846 8270D
Acenaphthylene	<0.033	mg/Kg	SW846 8270D
Anthracene	<0.033	mg/Kg	SW846 8270D
Benzo(a)Anthracene	<0.033	mg/Kg	SW846 8270D
Benzo(a)Pyrene	<0.033	mg/Kg	SW846 8270D
Benzo(b)Fluoranthene	<0.033	mg/Kg	SW846 8270D
Benzo(ghi)Perylene	<0.033	mg/Kg	SW846 8270D
Benzo(k)Fluoranthene	<0.033	mg/Kg	SW846 8270D
Chrysene	<0.033	mg/Kg	SW846 8270D
Dibenz(a,h)Anthracene	<0.033	mg/Kg	SW846 8270D
Fluoranthene	<0.033	mg/Kg	SW846 8270D
Fluorene	<0.033	mg/Kg	SW846 8270D
Indeno(1,2,3-cd)Pyrene	<0.033	mg/Kg	SW846 8270D
Naphthalene	<0.033	mg/Kg	SW846 8270D
Phenanthrene	<0.033	mg/Kg	SW846 8270D
Pyrene	<0.033	mg/Kg	SW846 8270D

Surrogate	% Recovery	Method
2-Fluorobiphenyl	70	SW846 8270D
Nitrobenzene-d6	59	SW846 8270D
p-Terphenyl-d14	86	SW846 8270D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
 a5/mlh

Appendix D

KITSAP COUNTY PUBLIC WORKS
OLYMPIC VIEW TRANSFER STATION
360-337-5777

CUSTOMER: 0000 TICKET# 808007
BILL TO: CASH
TRUCK: 2167

DATE: 10/15/15
TIME IN: 15:30
TIME OUT: 15:49
OPERATOR: LAR

GR: 16280 TR: 9960 NET: 6320
ADJUSTED NET LBS: 6320
GR: 8.14 TR: 4.98 NET: 3.16
NET WEIGHT 6320 @
RATE: \$40.47/TN OR .0340/LB
Contaminated Soils CS
TIP FEE: 127.89
SPEC FEE: 0.00
TAX FEE: 4.60
TOTAL FEE: \$132.49
TENDERED: 132.49
CHANGE: 0.00

PAYMENT:
5 - Credit Car \$132.49
NOTE:
ORIG: 10 - Kitsap County
PROFILE: 110494 FUEL IMPACTED

Andy

KITSAP COUNTY PUBLIC WORKS
OLYMPIC VIEW TRANSFER STATION
360-337-5777

CUSTOMER: 0000 TICKET# 808007
BILL TO: CASH
TRUCK: 2167

DATE: 10/15/15
TIME IN: 15:30
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NET WEIGHT 6320 @
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