Phase II Environmental Site Assessment, Soil Sampling Report
State Route (SR) 509
Foreman Property 18451 12th Avenue South

Prepared for

Washington State Department of Transportation
SR 509 Project Office

Prepared by

Headquarters Hazardous Materials and Solid Waste Program
Environmental Services Office

Washington State Department of Transportation

January 24, 2019

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Acronyms and Abbreviations

ASTM E 1903-11	American Society for Testing and Materials Standard Practice for Environmental Site Assessments: Phase II Environmental Assessment Process, Designation: E 1903-11
bgs	Below ground surface
CUL	Cleanup Level
Ecology	Washington State Department of Ecology
ESA	Environmental Site Assessment
ESO	Environmental Services Office
HazMat Program	Hazardous Materials and Solid Waste Program
HQ	Headquarters
MTCA	Model Toxics Control Act
NFA	No Further Action
NWR	Northwest Region
RCRA	Resource Conservation and Recovery Act
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

1.0 INTRODUCTION

The Washington State Department of Transportation (WSDOT) Headquarters (HQ) Hazardous Materials and Solid Waste (HazMat) Program prepared this Phase II Environmental Site Assessment (ESA) Report to provide a summary of information associated with soil investigation and excavation activities within existing unconstructed WSDOT right-of-way (ROW) at 18451 12th Avenue South in Des Moines, WA (Site) (See Appendix 1).. The Site is associated with the WSDOT 509 Project Office in support of the future construction of the State Route (SR) 509 Roadway Project.

The Phase II ESA soil sampling activities assesses soil conditions within the property and confirms the presence or absence of contaminated soil after cleanup activities. A contractor, Marine Vacuum Incorporated (Marine Vac.) remediated two areas of confirmed and suspected contaminated materials.

HazMat conducted this Phase II ESA in general accordance with the American Society for Testing and Materials Standard Practice for Environmental Site Assessments (ASTM): Phase II Environmental Site Assessment Process, Designation: E 1903-11 (ASTM 1903-1) and the WSDOT Environmental Manual (EM) 31-11, Chapter 447.

1.1 SITE INFORMATION

The following sections provide information pertaining to the background, physical, geological and hydrogeological setting of the site.

1.1.1 Physical Setting and Historical Background

WSDOT purchased this Site as part of the future SR 509 Project, and leased the property to tenants since 2000. The Site is located near the intersection of Des Moines Memorial Drive and South 188 Street and the intersection of SR 509 and South 188 Street. The previous tenant, Mr. Foreman, conducted welding activities on this property from 2000 through 2016. In the summer of 2016, WSDOT allowed the Washington State Patrol (WSP) to use a portion of the property to dismantle seized vehicles. Currently, A-1 Towing leases the property as a towing yard, which includes parking vehicles throughout the site and repairing the vehicles within the garage structure.

1.2.1 Geologic and Hydrogeologic Setting

Based upon review available information near the Site vicinity, soils from surface to six feet (ft.) below ground surface (bgs) are defined as poorly graded sand, medium dense, olive gray, moist and homogenous. Soils from six to 10 ft. are defined as poorly graded sand, medium dense, olive gray, moist, and homogeneous. Soils from 10 to 15 ft. are defined as silty sand, dense, grayish brown, moist, and homogenous.

Groundwater depth varied across the Site; although, it was encountered as shallow as three ft. bgs in select locations.

2.0 BACKGROUND INFORMATION

The following provides a chronological order of the relevant events that led up to the cleanup of contaminated soils on the Site. The background describes two separate sample events prior to the contaminated soil remedial activities and confirmation sampling.

In October 2016, WSDOT Northwest Region (NWR) Real Estate Services (RES) requested the WSDOT NWR Hazardous Materials Specialist to perform a limited Phase II Environmental Site Assessment (ESA) after MR. Foreman's lease terminated. WSDOT NWR sampled four locations (A, B, C, & D) (See Appendix 1) of suspected contaminated soil identified on the property. NWR HazMat identified two relatively large heavily stained areas, numerous small stains located on the north end of the site, and abandoned solid waste debris and trash scattered throughout. WSDOT collected a total of four representative samples (SS1 in Area A, SS2 in Area B, SS3 in Area C, and SS4 in Area D). WSDOT collected samples in areas where large stains were evident (A and C), numerous small stains (D), unusual odors (A-D), and solid wastes like trash and debris were abandoned (B and D). The soil samples were analyzed using the following methods:

- Northwest Total Petroleum Hydrocarbons - Method NWTPH – Benzene, Toluene, Ethylbenzene, and Xylene (BTEX))
- Diesel and Heavy Oil - Method NWTPH (Dx)
- SVOCs - EPA Method 8270
- RCRA 8 Metals - EPA Method 6010

Analytical results of one the four soil samples indicated that that lube range petroleum hydrocarbons were detected at a concentration greater than current Model Toxics Control Act (MTCA) Method A cleanup level (CUL) of 2,000 milligrams per kilograms (SS-3 31,000 mg/kg). WSDOT considered this asphalt. The analytical results of another sample indicated that arsenic were detected at a concentration greater the current MTCA Method A CUL of 20 milligrams per kilograms (SS-2 35 mg/kg). The remaining analytes sampled were either non-detect or below MTCA Method A cleanup levels. Based upon the sample results, field remediation of contaminated soils was needed in area B (SS-2) and C (SS-3).

In April 2017, WSDOT contracted Marine Vacuum Incorporated (Marine Vac.) to cleanup areas on the Site with trash, debris, and soils with notable detectable analytes below MTCA Method A CULs.

In January 2018 A-1 Towing, the lessee, graded and displaced Site soils. Some soils were contaminated. The soils were displaced from previously sampled areas A and B. There also was a new stockpile located just north of area D.

On March 15, 2018, WSDOT Headquarters (HQ) HazMat Program collected four soil samples (SS1a, SS2a, SS3a, and SS4a) on the Site in areas previously defined as A, B, and in a new location. The HazMat Program collected a sample if there was an indication of grading with known or suspected soil contamination, or where displaced/graded soils appeared to be consolidated into a stock pile generated by the lessee. Areas C and D did not have these indicators and did not warrant additional sampling. The stock pile location is just north of area D and was estimated to contain approximately 25 cubic yards of material.

The analytical results from the March 2018 investigative sampling, individual chemical constituents detected in each soil sample were analyzed using:

- NWTPH-Gx,
- NWTPH-Dx,
- Volatiles EPA Method 8260C,
- Semi-Volatiles Method 8270D,
- Total metals EPA Method 6010D.

No sample results were above MTCA Method A cleanup standards.

3.0 FIELD INVESTIGATION

On September 21, 2018, HQ HazMat collected two soil confirmation samples (Fcl1 and Fcl2) using a pre-cleaned stainless steel spoon. HQ HazMat decontaminated the stainless steel spoon with a phosphate free cleaner (Alconox) and rinsed it with distilled water between the confirmation sample locations. HQ HazMat collected the two confirmation samples in areas remediated where:

- Soils were previously identified in concentrations that exceeded MTCA Method A cleanup levels (CULs) for lube oil; and
- Numerous stains were located throughout the area.

The Fcl1 confirmation sample was collected at the bottom from the center of where the crushed asphalt was removed.

The depth of the excavation trench for the 2nd confirmation sample could not safely be accessed. Therefore, the Fcl2 confirmation sample was collected from soil excavated with a backhoe bucket taken from the center of the bottom of the excavation.

4.0 ANALYTICAL SAMPLING RESULTS

The analytical data was reviewed and deemed acceptable. The individual chemical constituents in each soil sample was evaluated against the MTCA Method A cleanup levels for unrestricted land use. The sample results were below MTCA Method A cleanup levels. All chemical results from each of the soil sample events are presented in its entirety in Appendix 3. All of the soil samples were delivered to OnSite Environmental Incorporated located in Redmond, WA.

The analytical results from the September 2018 confirmation samples, individual constituents detected in each soil sample was evaluated against:

- NWTPH-Dx
- Semi-Volatiles EPA Method 8260C
- MTCA Metals

The laboratory analytical results from the two confirmation samples were either non-detect or at concentrations below MTCA Method A CULs.

5.0FIELD ACTIVITIES

On September 20 and 21, 2018, Marine Vac. conducted excavation activities to address lube oil concentrations exceeding MTCA Method A CULs. Additionally, Marine Vac. excavated an area to remediate suspected contaminated materials (See Appendix 1 areas C and D). During site cleanup activities, excavated soils were segregated based on field screening results. Soils included in the direct haul to Marine Vac. for disposal as contaminated included soils based up sight, olfactory indicators, and/or had Photoionization Indication Detector (PID) levels above 10 ppm. The non-suspect soils were placed off to the side in a designated area lined and covered with 6 mil polyethylene sheeting. On September 24, 2018, Marine Vac. filled and graded the excavation areas with the existing non-suspect soils.

A total of about 8.4 cubic yards of suspected and/or confirmed contaminated material was excavated and transported for disposal by Marine Vac. Waste disposal receipts are located in Appendix 4.

No groundwater was encountered during cleanup activities.

6.0 SUMMARY AND CONCLUSIONS

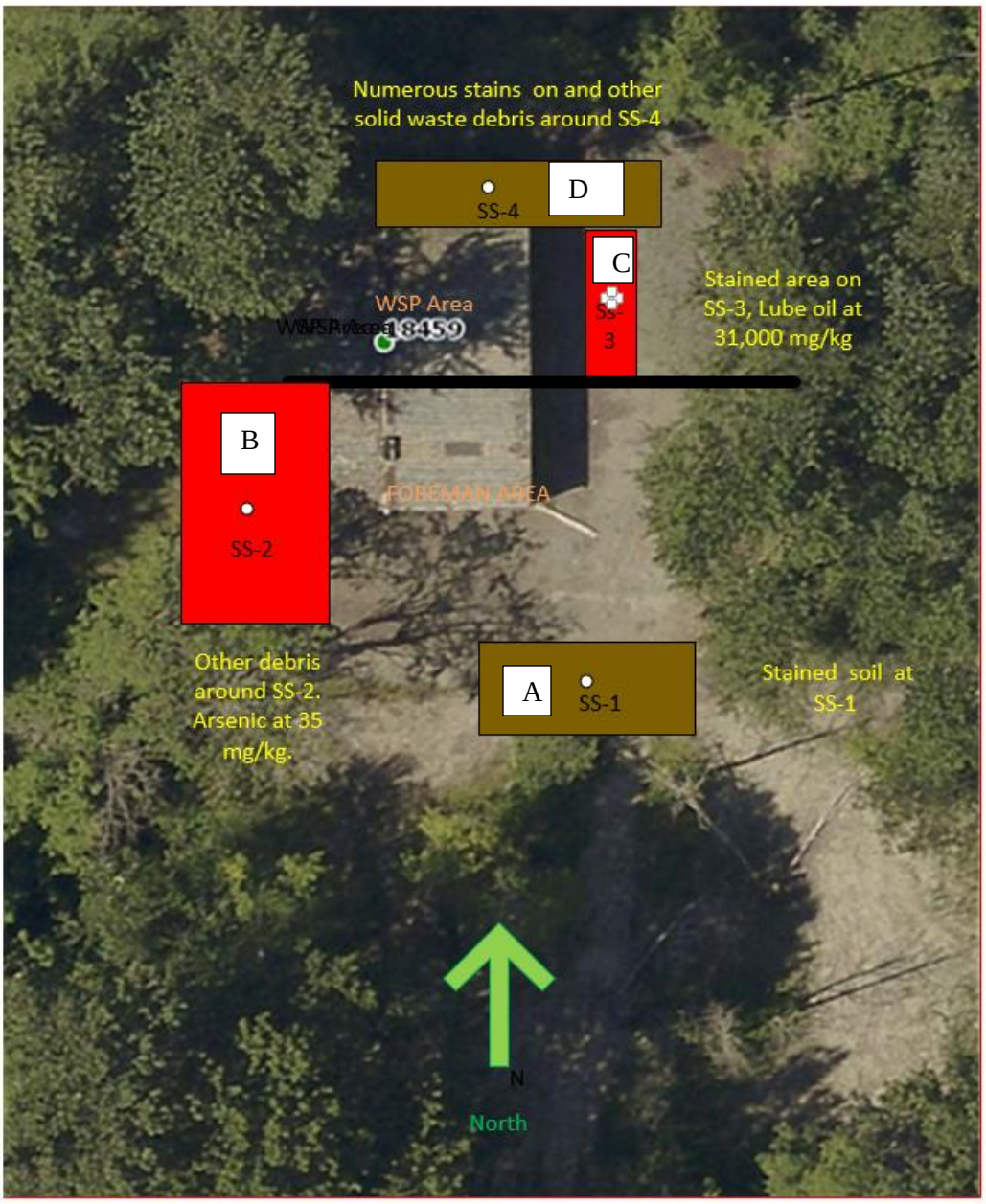
WSDOT completed soil investigation and excavation activities within the Site. WSDOT investigated the soils on the Site at the end of an existing long term lease and also after the new lessee displaced and graded soils. Confirmed and suspect contamination existed on the site. Approximately 8.4 cubic yards of confirmed and suspected contaminated soil was disposed. Based on the laboratory analytical results from the confirmation sample locations, it was determined that no contamination remains on the property.

Based on the cleanup activities and the laboratory analytical results, it appears that the subsequent environmental investigation removed the confirmed or suspected contamination; therefore, with no immediate threat to human health or the environment no additional environmental investigation appears warranted at this time. WSDOT recommends Washington State Department of Ecology to accept this Site as a No Further Action.

APPENDIX 1 – VICINITY MAP and SAMPLE POINTS & BACKGROUND

VICINITY MAP WITH SAMPLE POINTS

BACKGROUND AREA



○ Sample locations

APPENDIX 2 SUMMARY TABLES

BACKGROUND CONDITION

Sample Collected (10/2016)	Gasoline mg/kg	Diesel mg/kg	Lube Oil mg/kg	Benzene mg/kg	Chromium mg/kg	Arsenic mg/kg
SS 1	ND	ND	1900	ND	48	ND
SS 2	ND	ND	220	0.022 (0.03)	46	**35**
SS 3	ND	ND	**31,000**	ND	22	ND
SS 4 *MTCA Method A Cleanup levels mg/kg*	ND *30 mg/kg with Benzene 100 mg/kg without Benzene*	ND *2000 mg/kg*	60 *2000 mg/kg*	ND *0.03*	42 *100 mg/kg(replaced by values for III (2000) and VI (19))*	ND *20 mg/kg*

MARCH 2018 INVESTIGATION

Sample Collected (10/2016)	Gasoline mg/kg	Diesel mg/kg	Lube Oil mg/kg	Benzene mg/kg	Chromium mg/kg	Arsenic mg/kg
SS 1	ND	ND	82	ND	41	ND
SS 2	ND	58	370	ND	52	ND
SS 3 (STOCKPILE)	ND	ND	470	ND	47	ND
SS 4 (STOCKPILE)	ND	ND	260	ND	60	ND
MTCA Method A Cleanup levels mg/kg	*30 mg/kg with Benzene 100 mg/kg without Benzene*	*2000 mg/kg*	*2000 mg/kg*	*0.03 mg/kg*	*100 mg/kg(replaced by values for III (2000) and VI (19))*	*5 mg/kg*

CONFIRMATION SAMPLE

Sample Collected 8/21/2018	Lube Oil
FC1-1 (Baseline ss3)	590
FC1-2 (Baseline ss4)	ND
MTCA Method A cleanup level mg/kg	*2000 mg/kg*

APPENDIX 3 LABORATORY REPORTS

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 8, 2016

Patrick Svoboda
WSDOT
15700 Dayton Avenue North
NB82-138
P.O. Box 330310
Seattle, WA 98133-9710

Re: Analytical Data for Project SR 509 - 12th Street
Laboratory Reference No. 1610-295

Dear Pat:

Enclosed are the analytical results and associated quality control data for samples submitted on October 26, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

Case Narrative

Samples were collected on October 25, 2016 and received by the laboratory on October 26, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH Gx/BTEX Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Semivolatiles EPA 8270D/SIM Analysis

Sample SS 4 had one surrogate recovery out of control limits. This was due to a large co-eluting non-target analyte peak, tentatively identified as 2-butoxy ethanol by spectral library search.

The Spike Blank/Spike Blank Duplicate had one recovery slightly above control limits, due to a small upward bias in the instruments' calibration and the sample was non-detect for this analyte. No further action was taken.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Soil Sample 1**					
Laboratory ID:	10-295-01					
Benzene	**ND**	0.020	EPA 8021B	10-28-16	10-31-16	
Toluene	**ND**	0.051	EPA 8021B	10-28-16	10-31-16	
Ethyl Benzene	**ND**	0.051	EPA 8021B	10-28-16	10-31-16	
m,p-Xylene	**ND**	0.051	EPA 8021B	10-28-16	10-31-16	
o-Xylene	**ND**	0.051	EPA 8021B	10-28-16	10-31-16	
Gasoline	**ND**	5.1	NWTPH-Gx	10-28-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*63-124*				
Client ID:	**Soil Sample 2**					
Laboratory ID:	10-295-02					
Benzene	**0.022**	0.020	EPA 8021B	10-28-16	11-1-16	
Toluene	**ND**	0.094	EPA 8021B	10-28-16	11-1-16	
Ethyl Benzene	**ND**	0.094	EPA 8021B	10-28-16	11-1-16	
m,p-Xylene	**ND**	0.094	EPA 8021B	10-28-16	11-1-16	
o-Xylene	**ND**	0.094	EPA 8021B	10-28-16	11-1-16	
Gasoline	**ND**	9.4	NWTPH-Gx	10-28-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*80*	*63-124*				
Client ID:	**Soil Sample 3**					
Laboratory ID:	10-295-03					
Benzene	**ND**	0.020	EPA 8021B	10-28-16	11-1-16	
Toluene	**ND**	0.048	EPA 8021B	10-28-16	11-1-16	
Ethyl Benzene	**ND**	0.048	EPA 8021B	10-28-16	11-1-16	
m,p-Xylene	**ND**	0.048	EPA 8021B	10-28-16	11-1-16	
o-Xylene	**ND**	0.048	EPA 8021B	10-28-16	11-1-16	
Gasoline	**ND**	4.8	NWTPH-Gx	10-28-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*63-124*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS 4**					
Laboratory ID:	10-295-04					
Benzene	**ND**	0.020	EPA 8021B	10-28-16	11-1-16	
Toluene	**ND**	0.055	EPA 8021B	10-28-16	11-1-16	
Ethyl Benzene	**ND**	0.055	EPA 8021B	10-28-16	11-1-16	
m,p-Xylene	**ND**	0.055	EPA 8021B	10-28-16	11-1-16	
o-Xylene	**ND**	0.055	EPA 8021B	10-28-16	11-1-16	
Gasoline	**ND**	5.5	NWTPH-Gx	10-28-16	11-1-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*63-124*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1028S1					
Benzene	**ND**	0.020	EPA 8021B	10-28-16	10-28-16	
Toluene	**ND**	0.050	EPA 8021B	10-28-16	10-28-16	
Ethyl Benzene	**ND**	0.050	EPA 8021B	10-28-16	10-28-16	
m,p-Xylene	**ND**	0.050	EPA 8021B	10-28-16	10-28-16	
o-Xylene	**ND**	0.050	EPA 8021B	10-28-16	10-28-16	
Gasoline	**ND**	5.0	NWTPH-Gx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*63-124*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-293-16										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethyl Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*100*	*95*	*63-124*			
SPIKE BLANKS											
Laboratory ID:	SB1028S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.929**	**0.914**	1.00	1.00		**93**	**91**	70-124	2	12	
Toluene	**0.935**	**0.927**	1.00	1.00		**94**	**93**	73-119	1	12	
Ethyl Benzene	**0.953**	**0.942**	1.00	1.00		**95**	**94**	74-117	1	12	
m,p-Xylene	**0.905**	**0.907**	1.00	1.00		**91**	**91**	75-117	0	13	
o-Xylene	**0.943**	**0.932**	1.00	1.00		**94**	**93**	75-116	1	12	
Surrogate:											
Fluorobenzene						*95*	*91*	*63-124*			

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Soil Sample 1**					
Laboratory ID:	10-295-01					
Diesel Range Organics	**ND**	550	NWTPH-Dx	10-28-16	10-28-16	U1
Lube Oil	**1900**	56	NWTPH-Dx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				
Client ID:	**Soil Sample 2**					
Laboratory ID:	10-295-02					
Diesel Range Organics	**ND**	46	NWTPH-Dx	10-28-16	10-28-16	U1
Lube Oil Range Organics	**220**	70	NWTPH-Dx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*107*	*50-150*				
Client ID:	**Soil Sample 3**					
Laboratory ID:	10-295-03					
Diesel Range Organics	**ND**	6000	NWTPH-Dx	10-28-16	10-31-16	U1
Lube Oil	**31000**	1100	NWTPH-Dx	10-28-16	10-31-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				S
Client ID:	**SS 4**					
Laboratory ID:	10-295-04					
Diesel Range Organics	**ND**	30	NWTPH-Dx	10-28-16	10-28-16	
Lube Oil Range Organics	**60**	59	NWTPH-Dx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1028S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	10-28-16	10-28-16	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	10-28-16	10-28-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	10-295-01									
	ORIG	DUP								
Diesel Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	U1
Lube Oil	**1670**	**1670**	NA	NA		NA	NA	0	NA	
Surrogate:										
o-Terphenyl						*84* *100*	*50-150*			

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
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SEMIVOLATILES EPA 8270D/SIM
page 1 of 2

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Soil Sample 1**					
Laboratory ID:	10-295-01					
n-Nitrosodimethylamine	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Pyridine	**ND**	0.37	EPA 8270D	11-2-16	11-3-16	
Phenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Aniline	**ND**	0.19	EPA 8270D	11-2-16	11-3-16	
bis(2-Chloroethyl)ether	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2-Chlorophenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
1,3-Dichlorobenzene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
1,4-Dichlorobenzene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Benzyl alcohol	**ND**	0.19	EPA 8270D	11-2-16	11-3-16	
1,2-Dichlorobenzene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2-Methylphenol (o-Cresol)	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
bis(2-Chloroisopropyl)ether	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
n-Nitroso-di-n-propylamine	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Hexachloroethane	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Nitrobenzene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Isophorone	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2-Nitrophenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2,4-Dimethylphenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
bis(2-Chloroethoxy)methane	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2,4-Dichlorophenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
1,2,4-Trichlorobenzene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Naphthalene	**ND**	0.0075	EPA 8270D/SIM	11-2-16	11-3-16	
4-Chloroaniline	**ND**	0.19	EPA 8270D	11-2-16	11-3-16	
Hexachlorobutadiene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
4-Chloro-3-methylphenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2-Methylnaphthalene	**0.0099**	0.0075	EPA 8270D/SIM	11-2-16	11-3-16	
1-Methylnaphthalene	**ND**	0.0075	EPA 8270D/SIM	11-2-16	11-3-16	
Hexachlorocyclopentadiene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2,4,6-Trichlorophenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2,3-Dichloroaniline	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2,4,5-Trichlorophenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2-Chloronaphthalene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2-Nitroaniline	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
1,4-Dinitrobenzene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Dimethylphthalate	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
1,3-Dinitrobenzene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2,6-Dinitrotoluene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
1,2-Dinitrobenzene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Acenaphthylene	**ND**	0.0075	EPA 8270D/SIM	11-2-16	11-3-16	
3-Nitroaniline	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	

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Samples Submitted: October 26, 2016
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Soil Sample 1**					
Laboratory ID:	10-295-01					
2,4-Dinitrophenol	**ND**	0.19	EPA 8270D	11-2-16	11-3-16	
Acenaphthene	**ND**	0.0075	EPA 8270D/SIM	11-2-16	11-3-16	
4-Nitrophenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2,4-Dinitrotoluene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Dibenzofuran	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2,3,5,6-Tetrachlorophenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
2,3,4,6-Tetrachlorophenol	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Diethylphthalate	**ND**	0.19	EPA 8270D	11-2-16	11-3-16	
4-Chlorophenyl-phenylether	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
4-Nitroaniline	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Fluorene	**0.0088**	0.0075	EPA 8270D/SIM	11-2-16	11-3-16	
4,6-Dinitro-2-methylphenol	**ND**	0.19	EPA 8270D	11-2-16	11-3-16	
n-Nitrosodiphenylamine	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
1,2-Diphenylhydrazine	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
4-Bromophenyl-phenylether	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Hexachlorobenzene	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Pentachlorophenol	**ND**	0.19	EPA 8270D	11-2-16	11-3-16	
Phenanthrene	**0.014**	0.0075	EPA 8270D/SIM	11-2-16	11-3-16	
Anthracene	**ND**	0.0075	EPA 8270D/SIM	11-2-16	11-3-16	
Carbazole	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Di-n-butylphthalate	**ND**	0.19	EPA 8270D	11-2-16	11-3-16	
Fluoranthene	**0.011**	0.0075	EPA 8270D/SIM	11-2-16	11-3-16	
Benzidine	**ND**	0.37	EPA 8270D	11-2-16	11-3-16	
Pyrene	**0.018**	0.0075	EPA 8270D/SIM	11-2-16	11-3-16	
Butylbenzylphthalate	**0.053**	0.037	EPA 8270D	11-2-16	11-3-16	
bis-2-Ethylhexyladipate	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
3,3'-Dichlorobenzidine	**ND**	0.19	EPA 8270D	11-2-16	11-3-16	
Benzo[a]anthracene	**ND**	0.015	EPA 8270D/SIM	11-2-16	11-4-16	
Chrysene	**ND**	0.015	EPA 8270D/SIM	11-2-16	11-4-16	
bis(2-Ethylhexyl)phthalate	**0.26**	0.037	EPA 8270D	11-2-16	11-3-16	
Di-n-octylphthalate	**ND**	0.037	EPA 8270D	11-2-16	11-3-16	
Benzo[b]fluoranthene	**ND**	0.015	EPA 8270D/SIM	11-2-16	11-4-16	
Benzo(j,k)fluoranthene	**ND**	0.015	EPA 8270D/SIM	11-2-16	11-4-16	
Benzo[a]pyrene	**ND**	0.015	EPA 8270D/SIM	11-2-16	11-4-16	
Indeno[1,2,3-cd]pyrene	**ND**	0.015	EPA 8270D/SIM	11-2-16	11-4-16	
Dibenz[a,h]anthracene	**ND**	0.015	EPA 8270D/SIM	11-2-16	11-4-16	
Benzo[g,h,i]perylene	**ND**	0.015	EPA 8270D/SIM	11-2-16	11-4-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*51*	*18 - 109*				
Phenol-d6	*63*	*25 - 111*				
Nitrobenzene-d5	*64*	*22 - 113*				
2-Fluorobiphenyl	*82*	*30 - 114*				
2,4,6-Tribromophenol	*88*	*22 - 116*				
Terphenyl-d14	*78*	*33 - 114*				

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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Soil Sample 2**					
Laboratory ID:	10-295-02					
n-Nitrosodimethylamine	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Pyridine	**ND**	0.46	EPA 8270D	11-2-16	11-3-16	
Phenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Aniline	**ND**	0.23	EPA 8270D	11-2-16	11-3-16	
bis(2-Chloroethyl)ether	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2-Chlorophenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
1,3-Dichlorobenzene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
1,4-Dichlorobenzene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Benzyl alcohol	**0.30**	0.23	EPA 8270D	11-2-16	11-3-16	
1,2-Dichlorobenzene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2-Methylphenol (o-Cresol)	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
bis(2-Chloroisopropyl)ether	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
n-Nitroso-di-n-propylamine	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Hexachloroethane	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Nitrobenzene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Isophorone	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2-Nitrophenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2,4-Dimethylphenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
bis(2-Chloroethoxy)methane	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2,4-Dichlorophenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
1,2,4-Trichlorobenzene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Naphthalene	**0.044**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
4-Chloroaniline	**ND**	0.23	EPA 8270D	11-2-16	11-3-16	
Hexachlorobutadiene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
4-Chloro-3-methylphenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2-Methylnaphthalene	**0.026**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
1-Methylnaphthalene	**0.014**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Hexachlorocyclopentadiene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2,4,6-Trichlorophenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2,3-Dichloroaniline	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2,4,5-Trichlorophenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2-Chloronaphthalene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2-Nitroaniline	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
1,4-Dinitrobenzene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Dimethylphthalate	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
1,3-Dinitrobenzene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2,6-Dinitrotoluene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
1,2-Dinitrobenzene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Acenaphthylene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
3-Nitroaniline	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Soil Sample 2**					
Laboratory ID:	10-295-02					
2,4-Dinitrophenol	**ND**	0.23	EPA 8270D	11-2-16	11-3-16	
Acenaphthene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
4-Nitrophenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2,4-Dinitrotoluene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Dibenzofuran	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2,3,5,6-Tetrachlorophenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
2,3,4,6-Tetrachlorophenol	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Diethylphthalate	**ND**	0.23	EPA 8270D	11-2-16	11-3-16	
4-Chlorophenyl-phenylether	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
4-Nitroaniline	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Fluorene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
4,6-Dinitro-2-methylphenol	**ND**	0.23	EPA 8270D	11-2-16	11-3-16	
n-Nitrosodiphenylamine	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
1,2-Diphenylhydrazine	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
4-Bromophenyl-phenylether	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Hexachlorobenzene	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Pentachlorophenol	**ND**	0.23	EPA 8270D	11-2-16	11-3-16	
Phenanthrene	**0.012**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Anthracene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Carbazole	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Di-n-butylphthalate	**ND**	0.23	EPA 8270D	11-2-16	11-3-16	
Fluoranthene	**0.0098**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Benzidine	**ND**	0.46	EPA 8270D	11-2-16	11-3-16	
Pyrene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Butylbenzylphthalate	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
bis-2-Ethylhexyladipate	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
3,3'-Dichlorobenzidine	**ND**	0.23	EPA 8270D	11-2-16	11-3-16	
Benzo[a]anthracene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Chrysene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
bis(2-Ethylhexyl)phthalate	**0.059**	0.046	EPA 8270D	11-2-16	11-3-16	
Di-n-octylphthalate	**ND**	0.046	EPA 8270D	11-2-16	11-3-16	
Benzo[b]fluoranthene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Benzo(j,k)fluoranthene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Benzo[a]pyrene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Indeno[1,2,3-cd]pyrene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Dibenz[a,h]anthracene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Benzo[g,h,i]perylene	**ND**	0.0093	EPA 8270D/SIM	11-2-16	11-3-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*28*	*18 - 109*				
Phenol-d6	*29*	*25 - 111*				
Nitrobenzene-d5	*49*	*22 - 113*				
2-Fluorobiphenyl	*57*	*30 - 114*				
2,4,6-Tribromophenol	*51*	*22 - 116*				
Terphenyl-d14	*57*	*33 - 114*				

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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Soil Sample 3**					
Laboratory ID:	10-295-03					
n-Nitrosodimethylamine	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Pyridine	**ND**	1.8	EPA 8270D	11-2-16	11-4-16	
Phenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Aniline	**ND**	0.92	EPA 8270D	11-2-16	11-4-16	
bis(2-Chloroethyl)ether	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2-Chlorophenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
1,3-Dichlorobenzene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
1,4-Dichlorobenzene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Benzyl alcohol	**ND**	0.92	EPA 8270D	11-2-16	11-4-16	
1,2-Dichlorobenzene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2-Methylphenol (o-Cresol)	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
bis(2-Chloroisopropyl)ether	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
n-Nitroso-di-n-propylamine	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Hexachloroethane	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Nitrobenzene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Isophorone	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2-Nitrophenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2,4-Dimethylphenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
bis(2-Chloroethoxy)methane	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2,4-Dichlorophenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
1,2,4-Trichlorobenzene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Naphthalene	**0.011**	0.0074	EPA 8270D/SIM	11-2-16	11-3-16	
4-Chloroaniline	**ND**	0.92	EPA 8270D	11-2-16	11-4-16	
Hexachlorobutadiene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
4-Chloro-3-methylphenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2-Methylnaphthalene	**0.042**	0.0074	EPA 8270D/SIM	11-2-16	11-3-16	
1-Methylnaphthalene	**0.030**	0.0074	EPA 8270D/SIM	11-2-16	11-3-16	
Hexachlorocyclopentadiene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2,4,6-Trichlorophenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2,3-Dichloroaniline	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2,4,5-Trichlorophenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2-Chloronaphthalene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2-Nitroaniline	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
1,4-Dinitrobenzene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Dimethylphthalate	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
1,3-Dinitrobenzene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2,6-Dinitrotoluene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
1,2-Dinitrobenzene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Acenaphthylene	**ND**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
3-Nitroaniline	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Soil Sample 3**					
Laboratory ID:	10-295-03					
2,4-Dinitrophenol	**ND**	0.92	EPA 8270D	11-2-16	11-4-16	
Acenaphthene	**ND**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
4-Nitrophenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2,4-Dinitrotoluene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Dibenzofuran	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2,3,5,6-Tetrachlorophenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
2,3,4,6-Tetrachlorophenol	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Diethylphthalate	**ND**	0.92	EPA 8270D	11-2-16	11-4-16	
4-Chlorophenyl-phenylether	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
4-Nitroaniline	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Fluorene	**0.15**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
4,6-Dinitro-2-methylphenol	**ND**	0.92	EPA 8270D	11-2-16	11-4-16	
n-Nitrosodiphenylamine	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
1,2-Diphenylhydrazine	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
4-Bromophenyl-phenylether	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Hexachlorobenzene	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Pentachlorophenol	**ND**	0.92	EPA 8270D	11-2-16	11-4-16	
Phenanthrene	**ND**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
Anthracene	**ND**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
Carbazole	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Di-n-butylphthalate	**ND**	0.92	EPA 8270D	11-2-16	11-4-16	
Fluoranthene	**0.18**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
Benzidine	**ND**	1.8	EPA 8270D	11-2-16	11-4-16	
Pyrene	**0.30**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
Butylbenzylphthalate	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
bis-2-Ethylhexyladipate	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
3,3'-Dichlorobenzidine	**ND**	0.92	EPA 8270D	11-2-16	11-4-16	
Benzo[a]anthracene	**0.21**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
Chrysene	**ND**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
bis(2-Ethylhexyl)phthalate	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Di-n-octylphthalate	**ND**	0.18	EPA 8270D	11-2-16	11-4-16	
Benzo[b]fluoranthene	**ND**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
Benzo(j,k)fluoranthene	**ND**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
Benzo[a]pyrene	**0.12**	0.037	EPA 8270D/SIM	11-2-16	11-4-16	
Indeno[1,2,3-cd]pyrene	**0.078**	0.037	EPA 8270D/SIM	11-2-16	11-4-16	
Dibenz[a,h]anthracene	**ND**	0.037	EPA 8270D/SIM	11-2-16	11-4-16	
Benzo[g,h,i]perylene	**0.15**	0.15	EPA 8270D/SIM	11-2-16	11-4-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*53*	*18 - 109*				
Phenol-d6	*62*	*25 - 111*				
Nitrobenzene-d5	*67*	*22 - 113*				
2-Fluorobiphenyl	*68*	*30 - 114*				
2,4,6-Tribromophenol	*76*	*22 - 116*				
Terphenyl-d14	*38*	*33 - 114*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

SEMIVOLATILES EPA 8270D/SIM
page 1 of 2

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS 4**					
Laboratory ID:	10-295-04					
n-Nitrosodimethylamine	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Pyridine	**ND**	0.40	EPA 8270D	11-2-16	11-7-16	
Phenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Aniline	**ND**	0.20	EPA 8270D	11-2-16	11-7-16	
bis(2-Chloroethyl)ether	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2-Chlorophenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
1,3-Dichlorobenzene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
1,4-Dichlorobenzene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Benzyl alcohol	**ND**	0.20	EPA 8270D	11-2-16	11-7-16	
1,2-Dichlorobenzene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2-Methylphenol (o-Cresol)	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
bis(2-Chloroisopropyl)ether	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
n-Nitroso-di-n-propylamine	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Hexachloroethane	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Nitrobenzene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Isophorone	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2-Nitrophenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2,4-Dimethylphenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
bis(2-Chloroethoxy)methane	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2,4-Dichlorophenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
1,2,4-Trichlorobenzene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Naphthalene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
4-Chloroaniline	**ND**	0.20	EPA 8270D	11-2-16	11-7-16	
Hexachlorobutadiene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
4-Chloro-3-methylphenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2-Methylnaphthalene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
1-Methylnaphthalene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Hexachlorocyclopentadiene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2,4,6-Trichlorophenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2,3-Dichloroaniline	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2,4,5-Trichlorophenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2-Chloronaphthalene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2-Nitroaniline	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
1,4-Dinitrobenzene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Dimethylphthalate	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
1,3-Dinitrobenzene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2,6-Dinitrotoluene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
1,2-Dinitrobenzene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Acenaphthylene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
3-Nitroaniline	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

SEMIVOLATILES EPA 8270D/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS 4**					
Laboratory ID:	10-295-04					
2,4-Dinitrophenol	**ND**	0.20	EPA 8270D	11-2-16	11-7-16	
Acenaphthene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
4-Nitrophenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2,4-Dinitrotoluene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Dibenzofuran	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2,3,5,6-Tetrachlorophenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
2,3,4,6-Tetrachlorophenol	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Diethylphthalate	**ND**	0.20	EPA 8270D	11-2-16	11-7-16	
4-Chlorophenyl-phenylether	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
4-Nitroaniline	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Fluorene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
4,6-Dinitro-2-methylphenol	**ND**	0.20	EPA 8270D	11-2-16	11-7-16	
n-Nitrosodiphenylamine	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
1,2-Diphenylhydrazine	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
4-Bromophenyl-phenylether	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Hexachlorobenzene	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Pentachlorophenol	**ND**	0.20	EPA 8270D	11-2-16	11-7-16	
Phenanthrene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Anthracene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Carbazole	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Di-n-butylphthalate	**ND**	0.20	EPA 8270D	11-2-16	11-7-16	
Fluoranthene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Benzidine	**ND**	0.40	EPA 8270D	11-2-16	11-7-16	
Pyrene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Butylbenzylphthalate	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
bis-2-Ethylhexyladipate	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
3,3'-Dichlorobenzidine	**ND**	0.20	EPA 8270D	11-2-16	11-7-16	
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
bis(2-Ethylhexyl)phthalate	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Di-n-octylphthalate	**ND**	0.040	EPA 8270D	11-2-16	11-7-16	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Indeno[1,2,3-cd]pyrene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Benzo[g,h,i]perylene	**ND**	0.0079	EPA 8270D/SIM	11-2-16	11-7-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*1.6*	*18 - 109*				Q
Phenol-d6	*75*	*25 - 111*				
Nitrobenzene-d5	*78*	*22 - 113*				
2-Fluorobiphenyl	*83*	*30 - 114*				
2,4,6-Tribromophenol	*92*	*22 - 116*				
Terphenyl-d14	*85*	*33 - 114*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

SEMIVOLATILES EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1102S1					
n-Nitrosodimethylamine	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Pyridine	**ND**	0.33	EPA 8270D	11-2-16	11-3-16	
Phenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Aniline	**ND**	0.17	EPA 8270D	11-2-16	11-3-16	
bis(2-Chloroethyl)ether	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2-Chlorophenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
1,3-Dichlorobenzene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
1,4-Dichlorobenzene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Benzyl alcohol	**ND**	0.17	EPA 8270D	11-2-16	11-3-16	
1,2-Dichlorobenzene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2-Methylphenol (o-Cresol)	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
bis(2-Chloroisopropyl)ether	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
n-Nitroso-di-n-propylamine	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Hexachloroethane	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Nitrobenzene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Isophorone	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2-Nitrophenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2,4-Dimethylphenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
bis(2-Chloroethoxy)methane	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2,4-Dichlorophenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
1,2,4-Trichlorobenzene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
4-Chloroaniline	**ND**	0.17	EPA 8270D	11-2-16	11-3-16	
Hexachlorobutadiene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
4-Chloro-3-methylphenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Hexachlorocyclopentadiene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2,4,6-Trichlorophenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2,3-Dichloroaniline	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2,4,5-Trichlorophenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2-Chloronaphthalene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2-Nitroaniline	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
1,4-Dinitrobenzene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Dimethylphthalate	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
1,3-Dinitrobenzene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2,6-Dinitrotoluene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
1,2-Dinitrobenzene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
3-Nitroaniline	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

SEMIVOLATILES EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1102S1					
2,4-Dinitrophenol	**ND**	0.17	EPA 8270D	11-2-16	11-3-16	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
4-Nitrophenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2,4-Dinitrotoluene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Dibenzofuran	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2,3,5,6-Tetrachlorophenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
2,3,4,6-Tetrachlorophenol	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Diethylphthalate	**ND**	0.17	EPA 8270D	11-2-16	11-3-16	
4-Chlorophenyl-phenylether	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
4-Nitroaniline	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
4,6-Dinitro-2-methylphenol	**ND**	0.17	EPA 8270D	11-2-16	11-3-16	
n-Nitrosodiphenylamine	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
1,2-Diphenylhydrazine	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
4-Bromophenyl-phenylether	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Hexachlorobenzene	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Pentachlorophenol	**ND**	0.17	EPA 8270D	11-2-16	11-3-16	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Carbazole	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Di-n-butylphthalate	**ND**	0.17	EPA 8270D	11-2-16	11-3-16	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Benzidine	**ND**	0.33	EPA 8270D	11-2-16	11-3-16	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Butylbenzylphthalate	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
bis-2-Ethylhexyladipate	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
3,3'-Dichlorobenzidine	**ND**	0.17	EPA 8270D	11-2-16	11-3-16	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
bis(2-Ethylhexyl)phthalate	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Di-n-octylphthalate	**ND**	0.033	EPA 8270D	11-2-16	11-3-16	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Indeno[1,2,3-cd]pyrene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	11-2-16	11-3-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*69*	*18 - 109*				
Phenol-d6	*70*	*25 - 111*				
Nitrobenzene-d5	*72*	*22 - 113*				
2-Fluorobiphenyl	*74*	*30 - 114*				
2,4,6-Tribromophenol	*76*	*22 - 116*				
Terphenyl-d14	*81*	*33 - 114*				

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

SEMIVOLATILES EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1102S1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	**1.07**	**1.02**	1.33	1.33	80	77	37 - 107	5	39	
2-Chlorophenol	**1.08**	**1.01**	1.33	1.33	81	76	36 - 107	7	40	
1,4-Dichlorobenzene	**0.503**	**0.485**	0.667	0.667	75	73	28 - 108	4	41	
n-Nitroso-di-n-propylamine	**0.488**	**0.465**	0.667	0.667	73	70	28 - 113	5	33	
1,2,4-Trichlorobenzene	**0.505**	**0.489**	0.667	0.667	76	73	33 - 106	3	38	
4-Chloro-3-methylphenol	**1.15**	**1.11**	1.33	1.33	86	83	52 - 106	4	30	
Acenaphthene	**0.525**	**0.510**	0.667	0.667	79	76	52 - 90	3	30	
4-Nitrophenol	**1.44**	**1.48**	1.33	1.33	108	111	30 - 109	3	32	I
2,4-Dinitrotoluene	**0.576**	**0.569**	0.667	0.667	86	85	50 - 101	1	32	
Pentachlorophenol	**0.981**	**0.855**	1.33	1.33	74	64	21 - 114	14	40	
Pyrene	**0.590**	**0.592**	0.667	0.667	88	89	52 - 104	0	30	
Surrogate:										
2-Fluorophenol					*79*	*75*	*18 - 109*			
Phenol-d6					*84*	*78*	*25 - 111*			
Nitrobenzene-d5					*81*	*76*	*22 - 113*			
2-Fluorobiphenyl					*87*	*80*	*30 - 114*			
2,4,6-Tribromophenol					*90*	*94*	*22 - 116*			
Terphenyl-d14					*95*	*92*	*33 - 114*			

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

TOTAL METALS
EPA 6010C/7471B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-295-01					
Client ID:	**Soil Sample 1**					
Arsenic	**ND**	11	6010C	10-27-16	10-27-16	
Barium	**79**	2.8	6010C	10-27-16	10-27-16	
Cadmium	**ND**	0.56	6010C	10-27-16	10-27-16	
Chromium	**48**	0.56	6010C	10-27-16	10-27-16	
Lead	**6.2**	5.6	6010C	10-27-16	10-27-16	
Mercury	**ND**	0.28	7471B	10-27-16	10-27-16	
Selenium	**ND**	11	6010C	10-27-16	10-27-16	
Silver	**ND**	1.1	6010C	10-27-16	10-27-16	
Lab ID:	10-295-02					
Client ID:	**Soil Sample 2**					
Arsenic	**35**	14	6010C	10-27-16	10-27-16	
Barium	**170**	3.5	6010C	10-27-16	10-27-16	
Cadmium	**0.77**	0.70	6010C	10-27-16	10-27-16	
Chromium	**45**	0.70	6010C	10-27-16	10-27-16	
Lead	**37**	7.0	6010C	10-27-16	10-27-16	
Mercury	**ND**	0.35	7471B	10-27-16	10-27-16	
Selenium	**ND**	14	6010C	10-27-16	10-27-16	
Silver	**ND**	1.4	6010C	10-27-16	10-27-16	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

TOTAL METALS
EPA 6010C/7471B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-295-03					
Client ID:	**Soil Sample 3**					
Arsenic	**ND**	11	6010C	10-27-16	10-27-16	
Barium	**55**	2.8	6010C	10-27-16	10-27-16	
Cadmium	**ND**	0.55	6010C	10-27-16	10-27-16	
Chromium	**22**	0.55	6010C	10-27-16	10-27-16	
Lead	**45**	5.5	6010C	10-27-16	10-27-16	
Mercury	**ND**	0.28	7471B	10-27-16	10-27-16	
Selenium	**ND**	11	6010C	10-27-16	10-27-16	
Silver	**ND**	1.1	6010C	10-27-16	10-27-16	
Lab ID:	10-295-04					
Client ID:	**SS 4**					
Arsenic	**ND**	12	6010C	10-27-16	10-27-16	
Barium	**73**	3.0	6010C	10-27-16	10-27-16	
Cadmium	**ND**	0.59	6010C	10-27-16	10-27-16	
Chromium	**42**	0.59	6010C	10-27-16	10-27-16	
Lead	**ND**	5.9	6010C	10-27-16	10-27-16	
Mercury	**ND**	0.30	7471B	10-27-16	10-27-16	
Selenium	**ND**	12	6010C	10-27-16	10-27-16	
Silver	**ND**	1.2	6010C	10-27-16	10-27-16	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

TOTAL METALS
EPA 6010C/7471B
METHOD BLANK QUALITY CONTROL

Date Extracted:	10-27-16
Date Analyzed:	10-27-16
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB1027SM1,MB1027SM2&MB1027S1

Analyte	Method	Result	PQL
Arsenic	6010C	**ND**	10
Barium	6010C	**ND**	2.5
Cadmium	6010C	**ND**	0.50
Chromium	6010C	**ND**	0.50
Lead	6010C	**ND**	5.0
Mercury	7471B	**ND**	0.25
Selenium	6010C	**ND**	10
Silver	6010C	**ND**	1.0

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

TOTAL METALS
EPA 6010C/7471B
DUPLICATE QUALITY CONTROL

Date Extracted: 10-27-16
Date Analyzed: 10-27-16

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 10-289-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	10	
Barium	**47.1**	**46.5**	1	2.5	
Cadmium	**ND**	**ND**	NA	0.50	
Chromium	**50.1**	**48.5**	3	0.50	
Lead	**ND**	**ND**	NA	5.0	
Mercury	**ND**	**ND**	NA	0.25	
Selenium	**ND**	**ND**	NA	10	
Silver	**ND**	**ND**	NA	1.0	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

TOTAL METALS
EPA 6010C/7471B
MS/MSD QUALITY CONTROL

Date Extracted: 10-27-16
Date Analyzed: 10-27-16

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 10-289-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	**92.3**	92	**91.8**	92	0	
Barium	100	**148**	101	**142**	95	4	
Cadmium	50.0	**48.7**	97	**48.3**	97	1	
Chromium	100	**135**	85	**137**	86	1	
Lead	250	**265**	106	**250**	100	6	
Mercury	0.500	**0.535**	107	**0.542**	108	1	
Selenium	100	**92.3**	92	**91.9**	92	0	
Silver	25.0	**20.8**	83	**21.0**	84	1	

Date of Report: November 8, 2016
Samples Submitted: October 26, 2016
Laboratory Reference: 1610-295
Project: SR 509 - 12th Street

% MOISTURE

Date Analyzed: 10-27-16

Client ID	Lab ID	% Moisture
Soil Sample 1	10-295-01	11
Soil Sample 2	10-295-02	28
Soil Sample 3	10-295-03	10
SS 4	10-295-04	16

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page (of)

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 10-295

Company: WSDOT
Project Number:
Project Name: SR509 - 12TH St
Project Manager: PAT SVOBODA
Sampled by: WSDOT

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☑ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs) SVOCs	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A						% Moisture
1	Soil Sample 1	10/25/16	3:10	SOIL	3		X		X			X						X				NO					X
2	Soil Sample 2	10/25/16	3:20																			DX					X
3	Soil Sample 3	10/25/16	3:30																								X
4	SS 4	10/25/16	3:45																								X

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	Patti Sloan	WSDOT	10/26/2016	8:15A	
Received	Diane Wyatt	SPEEDY	10-26-16	8:15A	
Relinquished	Diane Wyatt	SPEEDY	10-26-16	11:10A	
Received		OASE	10/26/16	1110	
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

March 27, 2018

Patrick Svoboda
WSDOT
15700 Dayton Avenue North
NB82-138
P.O. Box 330310
Seattle, WA 98133-9710

Re: Analytical Data for Project SR509 Foreman Property
Laboratory Reference No. 1803-152

Dear Pat:

Enclosed are the analytical results and associated quality control data for samples submitted on March 16, 2018.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

Case Narrative

Samples were collected on March 15, 2018 and received by the laboratory on March 16, 2018. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Semivolatiles EPA 8270D/SIM Analysis

The spike blank duplicate had one recovery slightly above control limits. The samples were non-detect for this analyte, further action was taken.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

NWTPH-Gx

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS1 N A'**					
Laboratory ID:	03-152-01					
Gasoline	**ND**	7.3	NWTPH-Gx	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*101*	*66-130*				
Client ID:	**SS2**					
Laboratory ID:	03-152-02					
Gasoline	**ND**	12	NWTPH-Gx	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*66-130*				
Client ID:	**SS3**					
Laboratory ID:	03-152-03					
Gasoline	**ND**	5.4	NWTPH-Gx	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*95*	*66-130*				
Client ID:	**SS4**					
Laboratory ID:	03-152-04					
Gasoline	**ND**	10	NWTPH-Gx	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*66-130*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

NWTPH-Gx
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0319S1					
Gasoline	**ND**	5.0	NWTPH-Gx	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*66-130*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	03-145-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*95*	*97*	*66-130*			

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS1 N A'**					
Laboratory ID:	03-152-01					
Diesel Range Organics	**ND**	35	NWTPH-Dx	3-19-18	3-19-18	
Lube Oil Range Organics	**82**	71	NWTPH-Dx	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				
Client ID:	**SS2**					
Laboratory ID:	03-152-02					
Diesel Range Organics	**58**	34	NWTPH-Dx	3-19-18	3-19-18	N
Lube Oil Range Organics	**370**	68	NWTPH-Dx	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**SS3**					
Laboratory ID:	03-152-03					
Diesel Range Organics	**ND**	60	NWTPH-Dx	3-19-18	3-20-18	
Lube Oil	**470**	120	NWTPH-Dx	3-19-18	3-20-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				
Client ID:	**SS4**					
Laboratory ID:	03-152-04					
Diesel Range Organics	**ND**	33	NWTPH-Dx	3-19-18	3-19-18	U1
Lube Oil	**260**	61	NWTPH-Dx	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0319S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	3-19-18	3-19-18	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	03-145-01										
	ORIG	DUP									
Diesel Range Organics	**64.2**	**42.0**	NA	NA		NA		NA	42	NA	
Lube Oil Range Organics	**188**	**137**	NA	NA		NA		NA	31	NA	
Surrogate:											
o-Terphenyl						*88*	*81*	*50-150*			

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

VOLATILES EPA 8260C
page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS1 N A'**					
Laboratory ID:	03-152-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Chloromethane	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
Vinyl Chloride	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Bromomethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Chloroethane	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Acetone	0.023	0.0054	EPA 8260C	3-19-18	3-19-18	
Iodomethane	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
Carbon Disulfide	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Methylene Chloride	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Vinyl Acetate	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
2-Butanone	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
Bromochloromethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Chloroform	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Benzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Trichloroethene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Dibromomethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Bromodichloromethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
Toluene	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS1 N A'**					
Laboratory ID:	03-152-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Tetrachloroethene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
2-Hexanone	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
Dibromochloromethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Chlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Ethylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
m,p-Xylene	ND	0.0022	EPA 8260C	3-19-18	3-19-18	
o-Xylene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Styrene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Bromoform	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
Isopropylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Bromobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
n-Propylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
2-Chlorotoluene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
4-Chlorotoluene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
tert-Butylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
sec-Butylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
n-Butylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	3-19-18	3-19-18	
Naphthalene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*120*	*75-131*				
Toluene-d8	*119*	*83-130*				
4-Bromofluorobenzene	*115*	*78-130*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS2**					
Laboratory ID:	03-152-02					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Chloromethane	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
Vinyl Chloride	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Bromomethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Chloroethane	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Acetone	0.0075	0.0063	EPA 8260C	3-19-18	3-19-18	
Iodomethane	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
Carbon Disulfide	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Methylene Chloride	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Vinyl Acetate	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
2-Butanone	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
Bromochloromethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Chloroform	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Benzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Trichloroethene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Dibromomethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Bromodichloromethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Methyl Isobutyl Ketone	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
Toluene	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS2**					
Laboratory ID:	03-152-02					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Tetrachloroethene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
2-Hexanone	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
Dibromochloromethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Chlorobenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Ethylbenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
m,p-Xylene	ND	0.0025	EPA 8260C	3-19-18	3-19-18	
o-Xylene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Styrene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Bromoform	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
Isopropylbenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Bromobenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
n-Propylbenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
2-Chlorotoluene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
4-Chlorotoluene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,3,5-Trimethylbenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
tert-Butylbenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
sec-Butylbenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
p-Isopropyltoluene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
n-Butylbenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,2-Dibromo-3-chloropropane	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Hexachlorobutadiene	ND	0.0063	EPA 8260C	3-19-18	3-19-18	
Naphthalene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*107*	*75-131*				
Toluene-d8	*104*	*83-130*				
4-Bromofluorobenzene	*100*	*78-130*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS3**					
Laboratory ID:	03-152-03					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Chloromethane	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
Vinyl Chloride	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Bromomethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Chloroethane	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Acetone	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
Iodomethane	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
Carbon Disulfide	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Methylene Chloride	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Vinyl Acetate	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
2-Butanone	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
Bromochloromethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Chloroform	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Benzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Trichloroethene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Dibromomethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Bromodichloromethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Methyl Isobutyl Ketone	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
Toluene	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	

Date of Report: March 27, 2018
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS3**					
Laboratory ID:	03-152-03					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Tetrachloroethene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
2-Hexanone	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
Dibromochloromethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Chlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Ethylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
m,p-Xylene	ND	0.0022	EPA 8260C	3-19-18	3-19-18	
o-Xylene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Styrene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Bromoform	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
Isopropylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Bromobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
n-Propylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
2-Chlorotoluene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
4-Chlorotoluene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
tert-Butylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
sec-Butylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
n-Butylbenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Hexachlorobutadiene	ND	0.0055	EPA 8260C	3-19-18	3-19-18	
Naphthalene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*123*	*75-131*				
Toluene-d8	*119*	*83-130*				
4-Bromofluorobenzene	*115*	*78-130*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS4**					
Laboratory ID:	03-152-04					
Dichlorodifluoromethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Chloromethane	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
Vinyl Chloride	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Bromomethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Chloroethane	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
Trichlorofluoromethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloroethene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Acetone	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
Iodomethane	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
Carbon Disulfide	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Methylene Chloride	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
(trans) 1,2-Dichloroethene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Methyl t-Butyl Ether	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloroethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Vinyl Acetate	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
2,2-Dichloropropane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
(cis) 1,2-Dichloroethene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
2-Butanone	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
Bromochloromethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Chloroform	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,1,1-Trichloroethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Carbon Tetrachloride	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloropropene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Benzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,2-Dichloroethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Trichloroethene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,2-Dichloropropane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Dibromomethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Bromodichloromethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
2-Chloroethyl Vinyl Ether	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
(cis) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Methyl Isobutyl Ketone	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
Toluene	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
(trans) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS4**					
Laboratory ID:	03-152-04					
1,1,2-Trichloroethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Tetrachloroethene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,3-Dichloropropane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
2-Hexanone	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
Dibromochloromethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,2-Dibromoethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Chlorobenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,1,1,2-Tetrachloroethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Ethylbenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
m,p-Xylene	ND	0.0032	EPA 8260C	3-19-18	3-19-18	
o-Xylene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Styrene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Bromoform	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
Isopropylbenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Bromobenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,1,2,2-Tetrachloroethane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,2,3-Trichloropropane	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
n-Propylbenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
2-Chlorotoluene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
4-Chlorotoluene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,3,5-Trimethylbenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
tert-Butylbenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,2,4-Trimethylbenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
sec-Butylbenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,3-Dichlorobenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
p-Isopropyltoluene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,4-Dichlorobenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,2-Dichlorobenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
n-Butylbenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,2-Dibromo-3-chloropropane	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
1,2,4-Trichlorobenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Hexachlorobutadiene	ND	0.0081	EPA 8260C	3-19-18	3-19-18	
Naphthalene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
1,2,3-Trichlorobenzene	ND	0.0016	EPA 8260C	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*119*	*75-131*				
Toluene-d8	*121*	*83-130*				
4-Bromofluorobenzene	*118*	*78-130*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0319S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Chloromethane	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
Vinyl Chloride	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Bromomethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Chloroethane	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Acetone	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
Iodomethane	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
Carbon Disulfide	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Methylene Chloride	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Vinyl Acetate	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
2-Butanone	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
Bromochloromethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Chloroform	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Benzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Trichloroethene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Dibromomethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Bromodichloromethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
Toluene	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0319S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Tetrachloroethene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
2-Hexanone	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
Dibromochloromethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Chlorobenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Ethylbenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
m,p-Xylene	ND	0.0020	EPA 8260C	3-19-18	3-19-18	
o-Xylene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Styrene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Bromoform	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
Isopropylbenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Bromobenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
n-Propylbenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
2-Chlorotoluene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
4-Chlorotoluene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
tert-Butylbenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
sec-Butylbenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
n-Butylbenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	3-19-18	3-19-18	
Naphthalene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	3-19-18	3-19-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*75-131*				
Toluene-d8	*102*	*83-130*				
4-Bromofluorobenzene	*103*	*78-130*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0319S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0518**	**0.0521**	0.0500	0.0500	104	104	58-126	1	20	
Benzene	**0.0538**	**0.0549**	0.0500	0.0500	108	110	72-122	2	19	
Trichloroethene	**0.0503**	**0.0497**	0.0500	0.0500	101	99	75-120	1	20	
Toluene	**0.0506**	**0.0503**	0.0500	0.0500	101	101	78-123	1	19	
Chlorobenzene	**0.0453**	**0.0456**	0.0500	0.0500	91	91	75-120	1	18	
Surrogate:										
Dibromofluoromethane					*109*	*103*	*75-131*			
Toluene-d8					*109*	*99*	*83-130*			
4-Bromofluorobenzene					*105*	*99*	*78-130*			

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

SEMIVOLATILES EPA 8270D/SIM
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS1 N A'**					
Laboratory ID:	03-152-01					
n-Nitrosodimethylamine	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Pyridine	**ND**	0.47	EPA 8270D	3-21-18	3-22-18	
Phenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Aniline	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroethyl)ether	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2-Chlorophenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
1,3-Dichlorobenzene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
1,4-Dichlorobenzene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Benzyl alcohol	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
1,2-Dichlorobenzene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2-Methylphenol (o-Cresol)	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroisopropyl)ether	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
n-Nitroso-di-n-propylamine	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Hexachloroethane	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Nitrobenzene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Isophorone	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2-Nitrophenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2,4-Dimethylphenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroethoxy)methane	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2,4-Dichlorophenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
1,2,4-Trichlorobenzene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Naphthalene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
4-Chloroaniline	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
Hexachlorobutadiene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
4-Chloro-3-methylphenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2-Methylnaphthalene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
1-Methylnaphthalene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Hexachlorocyclopentadiene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2,4,6-Trichlorophenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2,3-Dichloroaniline	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2,4,5-Trichlorophenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2-Chloronaphthalene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2-Nitroaniline	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
1,4-Dinitrobenzene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Dimethylphthalate	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
1,3-Dinitrobenzene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2,6-Dinitrotoluene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
1,2-Dinitrobenzene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Acenaphthylene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
3-Nitroaniline	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	

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Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS1 N A'**					
Laboratory ID:	03-152-01					
2,4-Dinitrophenol	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
Acenaphthene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
4-Nitrophenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2,4-Dinitrotoluene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Dibenzofuran	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2,3,5,6-Tetrachlorophenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
2,3,4,6-Tetrachlorophenol	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Diethylphthalate	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
4-Chlorophenyl-phenylether	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
4-Nitroaniline	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Fluorene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
4,6-Dinitro-2-methylphenol	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
n-Nitrosodiphenylamine	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
1,2-Diphenylhydrazine	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
4-Bromophenyl-phenylether	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Hexachlorobenzene	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Pentachlorophenol	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
Phenanthrene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Anthracene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Carbazole	**ND**	0.047	EPA 8270D	3-21-18	3-22-18	
Di-n-butylphthalate	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
Fluoranthene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Benzidine	**ND**	0.47	EPA 8270D	3-21-18	3-22-18	
Pyrene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Butylbenzylphthalate	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
bis-2-Ethylhexyladipate	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
3,3'-Dichlorobenzidine	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
Benzo[a]anthracene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Chrysene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
bis(2-Ethylhexyl)phthalate	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
Di-n-octylphthalate	**ND**	0.24	EPA 8270D	3-21-18	3-22-18	
Benzo[b]fluoranthene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo[a]pyrene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Indeno[1,2,3-cd]pyrene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo[g,h,i]perylene	**ND**	0.0094	EPA 8270D/SIM	3-21-18	3-22-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*68*	*18 - 113*				
Phenol-d6	*71*	*19 - 119*				
Nitrobenzene-d5	*71*	*19 - 119*				
2-Fluorobiphenyl	*78*	*33 - 109*				
2,4,6-Tribromophenol	*80*	*19 - 121*				
Terphenyl-d14	*74*	*30 - 116*				

Date of Report: March 27, 2018
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Project: SR509 Foreman Property

SEMIVOLATILES EPA 8270D/SIM
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS2**					
Laboratory ID:	03-152-02					
n-Nitrosodimethylamine	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Pyridine	**ND**	0.46	EPA 8270D	3-21-18	3-22-18	
Phenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Aniline	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroethyl)ether	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2-Chlorophenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
1,3-Dichlorobenzene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
1,4-Dichlorobenzene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Benzyl alcohol	**2.9**	1.1	EPA 8270D	3-21-18	3-23-18	
1,2-Dichlorobenzene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2-Methylphenol (o-Cresol)	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroisopropyl)ether	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
n-Nitroso-di-n-propylamine	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Hexachloroethane	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Nitrobenzene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Isophorone	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2-Nitrophenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2,4-Dimethylphenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroethoxy)methane	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2,4-Dichlorophenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
1,2,4-Trichlorobenzene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Naphthalene	**0.016**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
4-Chloroaniline	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
Hexachlorobutadiene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
4-Chloro-3-methylphenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2-Methylnaphthalene	**ND**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
1-Methylnaphthalene	**ND**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Hexachlorocyclopentadiene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2,4,6-Trichlorophenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2,3-Dichloroaniline	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2,4,5-Trichlorophenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2-Chloronaphthalene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2-Nitroaniline	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
1,4-Dinitrobenzene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Dimethylphthalate	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
1,3-Dinitrobenzene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2,6-Dinitrotoluene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
1,2-Dinitrobenzene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Acenaphthylene	**ND**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
3-Nitroaniline	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

SEMIVOLATILES EPA 8270D/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS2**					
Laboratory ID:	03-152-02					
2,4-Dinitrophenol	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
Acenaphthene	**ND**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
4-Nitrophenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2,4-Dinitrotoluene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Dibenzofuran	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2,3,5,6-Tetrachlorophenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
2,3,4,6-Tetrachlorophenol	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Diethylphthalate	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
4-Chlorophenyl-phenylether	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
4-Nitroaniline	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Fluorene	**ND**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
4,6-Dinitro-2-methylphenol	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
n-Nitrosodiphenylamine	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
1,2-Diphenylhydrazine	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
4-Bromophenyl-phenylether	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Hexachlorobenzene	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Pentachlorophenol	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
Phenanthrene	**0.014**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Anthracene	**ND**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Carbazole	**ND**	0.046	EPA 8270D	3-21-18	3-22-18	
Di-n-butylphthalate	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
Fluoranthene	**0.028**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Benzidine	**ND**	0.46	EPA 8270D	3-21-18	3-22-18	
Pyrene	**0.023**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Butylbenzylphthalate	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
bis-2-Ethylhexyladipate	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
3,3'-Dichlorobenzidine	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
Benzo[a]anthracene	**ND**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Chrysene	**0.022**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
bis(2-Ethylhexyl)phthalate	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
Di-n-octylphthalate	**ND**	0.23	EPA 8270D	3-21-18	3-22-18	
Benzo[b]fluoranthene	**0.028**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo(j,k)fluoranthene	**ND**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo[a]pyrene	**0.012**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Indeno[1,2,3-cd]pyrene	**0.012**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Dibenz[a,h]anthracene	**ND**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo[g,h,i]perylene	**0.020**	0.0091	EPA 8270D/SIM	3-21-18	3-22-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*61*	*18 - 113*				
Phenol-d6	*67*	*19 - 119*				
Nitrobenzene-d5	*67*	*19 - 119*				
2-Fluorobiphenyl	*77*	*33 - 109*				
2,4,6-Tribromophenol	*79*	*19 - 121*				
Terphenyl-d14	*76*	*30 - 116*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

SEMIVOLATILES EPA 8270D/SIM
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS3**					
Laboratory ID:	03-152-03					
n-Nitrosodimethylamine	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Pyridine	**ND**	0.40	EPA 8270D	3-21-18	3-22-18	
Phenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Aniline	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroethyl)ether	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Chlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,3-Dichlorobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,4-Dichlorobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Benzyl alcohol	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
1,2-Dichlorobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Methylphenol (o-Cresol)	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroisopropyl)ether	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
n-Nitroso-di-n-propylamine	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Hexachloroethane	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Nitrobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Isophorone	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Nitrophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,4-Dimethylphenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroethoxy)methane	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,4-Dichlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,2,4-Trichlorobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Naphthalene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
4-Chloroaniline	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Hexachlorobutadiene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
4-Chloro-3-methylphenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Methylnaphthalene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
1-Methylnaphthalene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Hexachlorocyclopentadiene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,4,6-Trichlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,3-Dichloroaniline	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,4,5-Trichlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Chloronaphthalene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Nitroaniline	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,4-Dinitrobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Dimethylphthalate	**0.12**	0.040	EPA 8270D	3-21-18	3-22-18	
1,3-Dinitrobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,6-Dinitrotoluene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,2-Dinitrobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Acenaphthylene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
3-Nitroaniline	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	

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Samples Submitted: March 16, 2018
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS3**					
Laboratory ID:	03-152-03					
2,4-Dinitrophenol	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Acenaphthene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
4-Nitrophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,4-Dinitrotoluene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Dibenzofuran	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,3,5,6-Tetrachlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,3,4,6-Tetrachlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Diethylphthalate	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
4-Chlorophenyl-phenylether	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
4-Nitroaniline	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Fluorene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
4,6-Dinitro-2-methylphenol	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
n-Nitrosodiphenylamine	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,2-Diphenylhydrazine	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
4-Bromophenyl-phenylether	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Hexachlorobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Pentachlorophenol	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Phenanthrene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Anthracene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Carbazole	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Di-n-butylphthalate	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Fluoranthene	**0.013**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Benzidine	**ND**	0.40	EPA 8270D	3-21-18	3-22-18	
Pyrene	**0.012**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Butylbenzylphthalate	**0.51**	0.20	EPA 8270D	3-21-18	3-22-18	
bis-2-Ethylhexyladipate	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
3,3'-Dichlorobenzidine	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Benzo[a]anthracene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Chrysene	**0.0092**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
bis(2-Ethylhexyl)phthalate	**0.25**	0.20	EPA 8270D	3-21-18	3-22-18	
Di-n-octylphthalate	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Benzo[b]fluoranthene	**0.011**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo(j,k)fluoranthene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo[a]pyrene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Indeno[1,2,3-cd]pyrene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Dibenz[a,h]anthracene	**ND**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo[g,h,i]perylene	**0.014**	0.0080	EPA 8270D/SIM	3-21-18	3-22-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*55*	*18 - 113*				
Phenol-d6	*68*	*19 - 119*				
Nitrobenzene-d5	*61*	*19 - 119*				
2-Fluorobiphenyl	*76*	*33 - 109*				
2,4,6-Tribromophenol	*80*	*19 - 121*				
Terphenyl-d14	*77*	*30 - 116*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

SEMIVOLATILES EPA 8270D/SIM
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS4**					
Laboratory ID:	03-152-04					
n-Nitrosodimethylamine	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Pyridine	**ND**	0.40	EPA 8270D	3-21-18	3-22-18	
Phenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Aniline	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroethyl)ether	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Chlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,3-Dichlorobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,4-Dichlorobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Benzyl alcohol	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
1,2-Dichlorobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Methylphenol (o-Cresol)	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroisopropyl)ether	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
n-Nitroso-di-n-propylamine	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Hexachloroethane	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Nitrobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Isophorone	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Nitrophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,4-Dimethylphenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
bis(2-Chloroethoxy)methane	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,4-Dichlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,2,4-Trichlorobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Naphthalene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
4-Chloroaniline	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Hexachlorobutadiene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
4-Chloro-3-methylphenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Methylnaphthalene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
1-Methylnaphthalene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Hexachlorocyclopentadiene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,4,6-Trichlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,3-Dichloroaniline	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,4,5-Trichlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Chloronaphthalene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2-Nitroaniline	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,4-Dinitrobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Dimethylphthalate	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,3-Dinitrobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,6-Dinitrotoluene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,2-Dinitrobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Acenaphthylene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
3-Nitroaniline	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS4**					
Laboratory ID:	03-152-04					
2,4-Dinitrophenol	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Acenaphthene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
4-Nitrophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,4-Dinitrotoluene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Dibenzofuran	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,3,5,6-Tetrachlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
2,3,4,6-Tetrachlorophenol	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Diethylphthalate	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
4-Chlorophenyl-phenylether	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
4-Nitroaniline	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Fluorene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
4,6-Dinitro-2-methylphenol	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
n-Nitrosodiphenylamine	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
1,2-Diphenylhydrazine	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
4-Bromophenyl-phenylether	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Hexachlorobenzene	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Pentachlorophenol	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Phenanthrene	**0.0097**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Anthracene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Carbazole	**ND**	0.040	EPA 8270D	3-21-18	3-22-18	
Di-n-butylphthalate	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Fluoranthene	**0.012**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Benzidine	**ND**	0.40	EPA 8270D	3-21-18	3-22-18	
Pyrene	**0.013**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Butylbenzylphthalate	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
bis-2-Ethylhexyladipate	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
3,3'-Dichlorobenzidine	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Benzo[a]anthracene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Chrysene	**0.0084**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
bis(2-Ethylhexyl)phthalate	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Di-n-octylphthalate	**ND**	0.20	EPA 8270D	3-21-18	3-22-18	
Benzo[b]fluoranthene	**0.011**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo(j,k)fluoranthene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo[a]pyrene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Indeno[1,2,3-cd]pyrene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Dibenz[a,h]anthracene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Benzo[g,h,i]perylene	**ND**	0.0081	EPA 8270D/SIM	3-21-18	3-22-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*63*	*18 - 113*				
Phenol-d6	*67*	*19 - 119*				
Nitrobenzene-d5	*68*	*19 - 119*				
2-Fluorobiphenyl	*75*	*33 - 109*				
2,4,6-Tribromophenol	*74*	*19 - 121*				
Terphenyl-d14	*71*	*30 - 116*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

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METHOD BLANK QUALITY CONTROL
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0321S1					
n-Nitrosodimethylamine	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Pyridine	**ND**	0.33	EPA 8270D	3-21-18	3-21-18	
Phenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Aniline	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
bis(2-Chloroethyl)ether	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2-Chlorophenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
1,3-Dichlorobenzene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
1,4-Dichlorobenzene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Benzyl alcohol	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
1,2-Dichlorobenzene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2-Methylphenol (o-Cresol)	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
bis(2-Chloroisopropyl)ether	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
n-Nitroso-di-n-propylamine	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Hexachloroethane	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Nitrobenzene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Isophorone	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2-Nitrophenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2,4-Dimethylphenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
bis(2-Chloroethoxy)methane	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2,4-Dichlorophenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
1,2,4-Trichlorobenzene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
4-Chloroaniline	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
Hexachlorobutadiene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
4-Chloro-3-methylphenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Hexachlorocyclopentadiene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2,4,6-Trichlorophenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2,3-Dichloroaniline	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2,4,5-Trichlorophenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2-Chloronaphthalene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2-Nitroaniline	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
1,4-Dinitrobenzene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Dimethylphthalate	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
1,3-Dinitrobenzene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2,6-Dinitrotoluene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
1,2-Dinitrobenzene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
3-Nitroaniline	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

SEMIVOLATILES EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0321S1					
2,4-Dinitrophenol	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
4-Nitrophenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2,4-Dinitrotoluene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Dibenzofuran	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2,3,5,6-Tetrachlorophenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
2,3,4,6-Tetrachlorophenol	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Diethylphthalate	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
4-Chlorophenyl-phenylether	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
4-Nitroaniline	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
4,6-Dinitro-2-methylphenol	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
n-Nitrosodiphenylamine	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
1,2-Diphenylhydrazine	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
4-Bromophenyl-phenylether	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Hexachlorobenzene	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Pentachlorophenol	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Carbazole	**ND**	0.033	EPA 8270D	3-21-18	3-21-18	
Di-n-butylphthalate	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Benzidine	**ND**	0.33	EPA 8270D	3-21-18	3-21-18	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Butylbenzylphthalate	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
bis-2-Ethylhexyladipate	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
3,3'-Dichlorobenzidine	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
bis(2-Ethylhexyl)phthalate	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
Di-n-octylphthalate	**ND**	0.17	EPA 8270D	3-21-18	3-21-18	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Indeno[1,2,3-cd]pyrene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	3-21-18	3-21-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*85*	*18 - 113*				
Phenol-d6	*86*	*19 - 119*				
Nitrobenzene-d5	*85*	*19 - 119*				
2-Fluorobiphenyl	*89*	*33 - 109*				
2,4,6-Tribromophenol	*85*	*19 - 121*				
Terphenyl-d14	*81*	*30 - 116*				

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

SEMIVOLATILES EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0321S1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	**1.11**	**1.15**	1.33	1.33	83	86	39 - 109	4	36	
2-Chlorophenol	**1.18**	**1.28**	1.33	1.33	89	96	42 - 105	8	35	
1,4-Dichlorobenzene	**0.561**	**0.613**	0.667	0.667	84	92	31 - 103	9	37	
n-Nitroso-di-n-propylamine	**0.598**	**0.615**	0.667	0.667	90	92	36 - 104	3	34	
1,2,4-Trichlorobenzene	**0.601**	**0.618**	0.667	0.667	90	93	32 - 104	3	38	
4-Chloro-3-methylphenol	**1.17**	**1.21**	1.33	1.33	88	91	48 - 107	3	31	
Acenaphthene	**0.554**	**0.597**	0.667	0.667	83	90	38 - 102	7	33	
4-Nitrophenol	**1.21**	**1.23**	1.33	1.33	91	92	27 - 121	2	35	
2,4-Dinitrotoluene	**0.551**	**0.582**	0.667	0.667	83	87	36 - 103	5	34	
Pentachlorophenol	**1.43**	**1.53**	1.33	1.33	108	115	21 - 114	7	37	I
Pyrene	**0.585**	**0.619**	0.667	0.667	88	93	46 - 108	6	31	
Surrogate:										
2-Fluorophenol					*86*	*90*	*18 - 113*			
Phenol-d6					*87*	*90*	*19 - 119*			
Nitrobenzene-d5					*84*	*87*	*19 - 119*			
2-Fluorobiphenyl					*85*	*86*	*33 - 109*			
2,4,6-Tribromophenol					*90*	*92*	*19 - 121*			
Terphenyl-d14					*83*	*86*	*30 - 116*			

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

TOTAL METALS
EPA 6010D/7471B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	03-152-01					
Client ID:	**SS1 N A'**					
Arsenic	**ND**	14	6010D	3-21-18	3-21-18	
Barium	**84**	3.5	6010D	3-21-18	3-21-18	
Cadmium	**ND**	0.71	6010D	3-21-18	3-21-18	
Chromium	**41**	0.71	6010D	3-21-18	3-21-18	
Lead	**ND**	7.1	6010D	3-21-18	3-21-18	
Mercury	**ND**	0.35	7471B	3-19-18	3-19-18	
Selenium	**ND**	14	6010D	3-21-18	3-21-18	
Silver	**ND**	1.4	6010D	3-21-18	3-21-18	
Lab ID:	03-152-02					
Client ID:	**SS2**					
Arsenic	**ND**	14	6010D	3-21-18	3-21-18	
Barium	**110**	3.4	6010D	3-21-18	3-21-18	
Cadmium	**ND**	0.68	6010D	3-21-18	3-21-18	
Chromium	**52**	0.68	6010D	3-21-18	3-21-18	
Lead	**53**	6.8	6010D	3-21-18	3-21-18	
Mercury	**ND**	0.34	7471B	3-19-18	3-19-18	
Selenium	**ND**	14	6010D	3-21-18	3-21-18	
Silver	**ND**	1.4	6010D	3-21-18	3-21-18	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

TOTAL METALS
EPA 6010D/7471B

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	03-152-03					
Client ID:	**SS3**					
Arsenic	**ND**	12	6010D	3-21-18	3-21-18	
Barium	**61**	3.0	6010D	3-21-18	3-21-18	
Cadmium	**ND**	0.60	6010D	3-21-18	3-21-18	
Chromium	**47**	0.60	6010D	3-21-18	3-21-18	
Lead	**27**	6.0	6010D	3-21-18	3-21-18	
Mercury	**ND**	0.30	7471B	3-19-18	3-19-18	
Selenium	**ND**	12	6010D	3-21-18	3-21-18	
Silver	**ND**	1.2	6010D	3-21-18	3-21-18	
Lab ID:	03-152-04					
Client ID:	**SS4**					
Arsenic	**ND**	12	6010D	3-21-18	3-21-18	
Barium	**160**	3.0	6010D	3-21-18	3-21-18	
Cadmium	**ND**	0.61	6010D	3-21-18	3-21-18	
Chromium	**60**	0.61	6010D	3-21-18	3-21-18	
Lead	**23**	6.1	6010D	3-21-18	3-21-18	
Mercury	**ND**	0.30	7471B	3-19-18	3-19-18	
Selenium	**ND**	12	6010D	3-21-18	3-21-18	
Silver	**ND**	1.2	6010D	3-21-18	3-21-18	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

TOTAL METALS
EPA 6010D
METHOD BLANK QUALITY CONTROL

Date Extracted: 3-21-18
Date Analyzed: 3-21-18

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0321SM1

Analyte	Method	Result	PQL
Arsenic	6010D	**ND**	10
Barium	6010D	**ND**	2.5
Cadmium	6010D	**ND**	0.50
Chromium	6010D	**ND**	0.50
Lead	6010D	**ND**	5.0
Selenium	6010D	**ND**	10
Silver	6010D	**ND**	1.0

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

TOTAL MERCURY
EPA 7471B
METHOD BLANK QUALITY CONTROL

Date Extracted:	3-19-18
Date Analyzed:	3-19-18
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	MB0319S1

Analyte	Method	Result	PQL
Mercury	7471B	**ND**	0.25

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

TOTAL METALS
EPA 6010D
DUPLICATE QUALITY CONTROL

Date Extracted: 3-21-18
Date Analyzed: 3-21-18

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-145-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	10	
Barium	**83.0**	**68.1**	20	2.5	
Cadmium	**ND**	**ND**	NA	0.50	
Chromium	**30.1**	**36.9**	20	0.50	
Lead	**57.3**	**49.0**	16	5.0	
Selenium	**ND**	**ND**	NA	10	
Silver	**ND**	**ND**	NA	1.0	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

TOTAL MERCURY
EPA 7471B
DUPLICATE QUALITY CONTROL

Date Extracted: 3-19-18
Date Analyzed: 3-19-18

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-145-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	**ND**	**ND**	NA	0.25	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

TOTAL METALS
EPA 6010D
MS/MSD QUALITY CONTROL

Date Extracted: 3-21-18
Date Analyzed: 3-21-18

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-145-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	**95.4**	95	**90.7**	91	5	
Barium	100	**175**	92	**181**	98	4	
Cadmium	50.0	**46.4**	93	**45.9**	92	1	
Chromium	100	**123**	93	**122**	92	1	
Lead	250	**291**	93	**290**	93	0	
Selenium	100	**97.3**	97	**94.8**	95	3	
Silver	25.0	**19.3**	77	**18.8**	75	3	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

TOTAL MERCURY
EPA 7471B
MS/MSD QUALITY CONTROL

Date Extracted: 3-19-18
Date Analyzed: 3-19-18

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-145-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Mercury	0.500	**0.510**	102	**0.490**	98	4	

Date of Report: March 27, 2018
Samples Submitted: March 16, 2018
Laboratory Reference: 1803-152
Project: SR509 Foreman Property

% MOISTURE

Date Analyzed: 3-19-18

Client ID	Lab ID	% Moisture
SS1 N A'	03-152-01	29
SS2	03-152-02	27
SS3	03-152-03	16
SS4	03-152-04	18

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: WSDOT
Project Number:
Project Name: SR509 Foreman Property
Project Manager: PATRICK SVOBODA
Sampled by:

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Days ☐ 3 Days
- ☑ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 03-152

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	% Moisture
1	SS1 NA	3/15/18	12:30	S	5	
2	SS2	3/15/18	1:00			
3	SS3	3/15/18	2:00			
4	SS4	3/15/18	2:15			

Analyses (NWTPH-HCID; NWTPH-Gx/BTEX; NWTPH-Dx DX; NWTPH-Dx (☐ Acid / SG Clean-up); Volatiles 8260C; Halogenated Volatiles 8260C; EDB EPA 8011 (Waters Only); Semivolatiles 8270D/SIM (with low-level PAHs); PAHs 8270D/SIM (low-level); PCBs 8082A; Organochlorine Pesticides 8081B; Organophosphorus Pesticides 8270D/SIM; Chlorinated Acid Herbicides 8151A; Total RCRA Metals; Total MTCA Metals; TCLP Metals; HEM (oil and grease) 1664A; % Moisture)

	Signature	Company	Date	Time
Relinquished	Patrick Svoboda	WSDOT	3/16/18	8:30
Received	Eileen Clark	Alpha	3/16/18	8:30
Relinquished	Eileen Clark	Alpha	3/16/18	11:23
Received			3/16/18	11:23
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 24, 2018

Patrick Svoboda
WSDOT
15700 Dayton Avenue North
NB82-138
P.O. Box 330310
Seattle, WA 98133-9710

Re: Analytical Data for Project Foreman
Laboratory Reference No. 1809-229

Dear Pat:

Enclosed are the analytical results and associated quality control data for samples submitted on September 21, 2018.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 24, 2018
Samples Submitted: September 21, 2018
Laboratory Reference: 1809-229
Project: Foreman

Case Narrative

Samples were collected on September 20 and 21, 2018 and received by the laboratory on September 21, 2018. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 24, 2018

Patrick Svoboda
WSDOT
15700 Dayton Avenue North
NB82-138
P.O. Box 330310
Seattle, WA 98133-9710

Re: Analytical Data for Project Foreman
Laboratory Reference No. 1809-229

Dear Pat:

Enclosed are the analytical results and associated quality control data for samples submitted on September 21, 2018.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: September 24, 2018
Samples Submitted: September 21, 2018
Laboratory Reference: 1809-229
Project: Foreman

Case Narrative

Samples were collected on September 20 and 21, 2018 and received by the laboratory on September 21, 2018. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: September 24, 2018
Samples Submitted: September 21, 2018
Laboratory Reference: 1809-229
Project: Foreman

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**FC1-1**					
Laboratory ID:	09-229-01					
Diesel Range Organics	**ND**	41	NWTPH-Dx	9-21-18	9-21-18	U1
Lube Oil	**590**	57	NWTPH-Dx	9-21-18	9-21-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**FC1-2**					
Laboratory ID:	09-229-02					
Diesel Range Organics	**ND**	27	NWTPH-Dx	9-21-18	9-21-18	
Lube Oil Range Organics	**ND**	54	NWTPH-Dx	9-21-18	9-21-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*81*	*50-150*				

Date of Report: September 24, 2018
Samples Submitted: September 21, 2018
Laboratory Reference: 1809-229
Project: Foreman

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0921S3					
Diesel Range Organics	**ND**	25	NWTPH-Dx	9-21-18	9-21-18	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	9-21-18	9-21-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-217-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range Organics	**178**	**164**	NA	NA		NA		NA	8	NA	
Surrogate:											
o-Terphenyl						*82*	*80*	*50-150*			

Date of Report: September 24, 2018
Samples Submitted: September 21, 2018
Laboratory Reference: 1809-229
Project: Foreman

SEMIVOLATILE ORGANICS EPA 8270D/SIM
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**FC1-1**					
Laboratory ID:	09-229-01					
n-Nitrosodimethylamine	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Pyridine	**ND**	3.8	EPA 8270D	9-21-18	9-21-18	
Phenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Aniline	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
bis(2-Chloroethyl)ether	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2-Chlorophenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
1,3-Dichlorobenzene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
1,4-Dichlorobenzene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Benzyl alcohol	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
1,2-Dichlorobenzene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2-Methylphenol (o-Cresol)	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
bis(2-Chloroisopropyl)ether	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
n-Nitroso-di-n-propylamine	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Hexachloroethane	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Nitrobenzene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Isophorone	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2-Nitrophenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2,4-Dimethylphenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
bis(2-Chloroethoxy)methane	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2,4-Dichlorophenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
1,2,4-Trichlorobenzene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Naphthalene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
4-Chloroaniline	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
Hexachlorobutadiene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
4-Chloro-3-methylphenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2-Methylnaphthalene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
1-Methylnaphthalene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Hexachlorocyclopentadiene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2,4,6-Trichlorophenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2,3-Dichloroaniline	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2,4,5-Trichlorophenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2-Chloronaphthalene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2-Nitroaniline	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
1,4-Dinitrobenzene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Dimethylphthalate	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
1,3-Dinitrobenzene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2,6-Dinitrotoluene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
1,2-Dinitrobenzene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Acenaphthylene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
3-Nitroaniline	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	

Date of Report: September 24, 2018
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Laboratory Reference: 1809-229
Project: Foreman

SEMIVOLATILE ORGANICS EPA 8270D/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**FC1-1**					
Laboratory ID:	09-229-01					
2,4-Dinitrophenol	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
Acenaphthene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
4-Nitrophenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2,4-Dinitrotoluene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Dibenzofuran	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2,3,5,6-Tetrachlorophenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
2,3,4,6-Tetrachlorophenol	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Diethylphthalate	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
4-Chlorophenyl-phenylether	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
4-Nitroaniline	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Fluorene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
4,6-Dinitro-2-methylphenol	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
n-Nitrosodiphenylamine	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
1,2-Diphenylhydrazine	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
4-Bromophenyl-phenylether	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Hexachlorobenzene	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Pentachlorophenol	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
Phenanthrene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Anthracene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Carbazole	**ND**	0.38	EPA 8270D	9-21-18	9-21-18	
Di-n-butylphthalate	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
Fluoranthene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Benzidine	**ND**	3.8	EPA 8270D	9-21-18	9-21-18	
Pyrene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Butylbenzylphthalate	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
bis-2-Ethylhexyladipate	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
3,3'-Dichlorobenzidine	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
Benzo[a]anthracene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Chrysene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
bis(2-Ethylhexyl)phthalate	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
Di-n-octylphthalate	**ND**	1.9	EPA 8270D	9-21-18	9-21-18	
Benzo[b]fluoranthene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Benzo(j,k)fluoranthene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Benzo[a]pyrene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Indeno[1,2,3-cd]pyrene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Dibenz[a,h]anthracene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Benzo[g,h,i]perylene	**ND**	0.015	EPA 8270D/SIM	9-21-18	9-21-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*38*	*19 - 103*				
Phenol-d6	*48*	*30 - 103*				
Nitrobenzene-d5	*44*	*27 - 105*				
2-Fluorobiphenyl	*56*	*36 - 102*				
2,4,6-Tribromophenol	*55*	*33 - 110*				
Terphenyl-d14	*64*	*38 - 108*				

Date of Report: September 24, 2018
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Project: Foreman

SEMIVOLATILE ORGANICS EPA 8270D/SIM
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**FC1-2**					
Laboratory ID:	09-229-02					
n-Nitrosodimethylamine	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Pyridine	**ND**	0.36	EPA 8270D	9-21-18	9-21-18	
Phenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Aniline	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
bis(2-Chloroethyl)ether	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2-Chlorophenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
1,3-Dichlorobenzene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
1,4-Dichlorobenzene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Benzyl alcohol	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
1,2-Dichlorobenzene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2-Methylphenol (o-Cresol)	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
bis(2-Chloroisopropyl)ether	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
n-Nitroso-di-n-propylamine	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Hexachloroethane	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Nitrobenzene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Isophorone	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2-Nitrophenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2,4-Dimethylphenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
bis(2-Chloroethoxy)methane	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2,4-Dichlorophenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
1,2,4-Trichlorobenzene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Naphthalene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
4-Chloroaniline	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
Hexachlorobutadiene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
4-Chloro-3-methylphenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2-Methylnaphthalene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
1-Methylnaphthalene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Hexachlorocyclopentadiene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2,4,6-Trichlorophenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2,3-Dichloroaniline	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2,4,5-Trichlorophenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2-Chloronaphthalene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2-Nitroaniline	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
1,4-Dinitrobenzene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Dimethylphthalate	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
1,3-Dinitrobenzene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2,6-Dinitrotoluene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
1,2-Dinitrobenzene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Acenaphthylene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
3-Nitroaniline	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	

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SEMIVOLATILE ORGANICS EPA 8270D/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**FC1-2**					
Laboratory ID:	09-229-02					
2,4-Dinitrophenol	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
Acenaphthene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
4-Nitrophenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2,4-Dinitrotoluene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Dibenzofuran	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2,3,5,6-Tetrachlorophenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
2,3,4,6-Tetrachlorophenol	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Diethylphthalate	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
4-Chlorophenyl-phenylether	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
4-Nitroaniline	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Fluorene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
4,6-Dinitro-2-methylphenol	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
n-Nitrosodiphenylamine	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
1,2-Diphenylhydrazine	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
4-Bromophenyl-phenylether	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Hexachlorobenzene	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Pentachlorophenol	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
Phenanthrene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Anthracene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Carbazole	**ND**	0.036	EPA 8270D	9-21-18	9-21-18	
Di-n-butylphthalate	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
Fluoranthene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Benzidine	**ND**	0.36	EPA 8270D	9-21-18	9-21-18	
Pyrene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Butylbenzylphthalate	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
bis-2-Ethylhexyladipate	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
3,3'-Dichlorobenzidine	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
Benzo[a]anthracene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Chrysene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
bis(2-Ethylhexyl)phthalate	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
Di-n-octylphthalate	**ND**	0.18	EPA 8270D	9-21-18	9-21-18	
Benzo[b]fluoranthene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Benzo(j,k)fluoranthene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Benzo[a]pyrene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Indeno[1,2,3-cd]pyrene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Dibenz[a,h]anthracene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Benzo[g,h,i]perylene	**ND**	0.0072	EPA 8270D/SIM	9-21-18	9-21-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*41*	*19 - 103*				
Phenol-d6	*47*	*30 - 103*				
Nitrobenzene-d5	*43*	*27 - 105*				
2-Fluorobiphenyl	*52*	*36 - 102*				
2,4,6-Tribromophenol	*78*	*33 - 110*				
Terphenyl-d14	*79*	*38 - 108*				

Date of Report: September 24, 2018
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Laboratory Reference: 1809-229
Project: Foreman

SEMIVOLATILE ORGANICS EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0921S1					
n-Nitrosodimethylamine	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Pyridine	**ND**	0.33	EPA 8270D	9-21-18	9-21-18	
Phenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Aniline	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
bis(2-Chloroethyl)ether	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2-Chlorophenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
1,3-Dichlorobenzene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
1,4-Dichlorobenzene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Benzyl alcohol	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
1,2-Dichlorobenzene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2-Methylphenol (o-Cresol)	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
bis(2-Chloroisopropyl)ether	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
n-Nitroso-di-n-propylamine	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Hexachloroethane	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Nitrobenzene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Isophorone	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2-Nitrophenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2,4-Dimethylphenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
bis(2-Chloroethoxy)methane	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2,4-Dichlorophenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
1,2,4-Trichlorobenzene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
4-Chloroaniline	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
Hexachlorobutadiene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
4-Chloro-3-methylphenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Hexachlorocyclopentadiene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2,4,6-Trichlorophenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2,3-Dichloroaniline	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2,4,5-Trichlorophenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2-Chloronaphthalene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2-Nitroaniline	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
1,4-Dinitrobenzene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Dimethylphthalate	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
1,3-Dinitrobenzene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2,6-Dinitrotoluene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
1,2-Dinitrobenzene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
3-Nitroaniline	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	

Date of Report: September 24, 2018
Samples Submitted: September 21, 2018
Laboratory Reference: 1809-229
Project: Foreman

SEMIVOLATILE ORGANICS EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0921S1					
2,4-Dinitrophenol	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
4-Nitrophenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2,4-Dinitrotoluene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Dibenzofuran	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2,3,5,6-Tetrachlorophenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
2,3,4,6-Tetrachlorophenol	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Diethylphthalate	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
4-Chlorophenyl-phenylether	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
4-Nitroaniline	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
4,6-Dinitro-2-methylphenol	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
n-Nitrosodiphenylamine	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
1,2-Diphenylhydrazine	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
4-Bromophenyl-phenylether	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Hexachlorobenzene	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Pentachlorophenol	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Carbazole	**ND**	0.033	EPA 8270D	9-21-18	9-21-18	
Di-n-butylphthalate	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Benzidine	**ND**	0.33	EPA 8270D	9-21-18	9-21-18	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Butylbenzylphthalate	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
bis-2-Ethylhexyladipate	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
3,3'-Dichlorobenzidine	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
bis(2-Ethylhexyl)phthalate	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
Di-n-octylphthalate	**ND**	0.17	EPA 8270D	9-21-18	9-21-18	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Indeno[1,2,3-cd]pyrene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	9-21-18	9-21-18	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*42*	*19 - 103*				
Phenol-d6	*47*	*30 - 103*				
Nitrobenzene-d5	*43*	*27 - 105*				
2-Fluorobiphenyl	*50*	*36 - 102*				
2,4,6-Tribromophenol	*70*	*33 - 110*				
Terphenyl-d14	*69*	*38 - 108*				

Date of Report: September 24, 2018
Samples Submitted: September 21, 2018
Laboratory Reference: 1809-229
Project: Foreman

SEMIVOLATILE ORGANICS EPA 8270D/SIM
SB/SBD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0921S1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	**0.782**	**0.896**	1.33	1.33	59	67	45 - 94	14	29	
2-Chlorophenol	**0.770**	**0.879**	1.33	1.33	58	66	46 - 94	13	33	
1,4-Dichlorobenzene	**0.360**	**0.429**	0.667	0.667	54	64	42 - 91	17	37	
n-Nitroso-di-n-propylamine	**0.382**	**0.479**	0.667	0.667	57	72	45 - 100	23	26	
1,2,4-Trichlorobenzene	**0.396**	**0.454**	0.667	0.667	59	68	45 - 100	14	32	
4-Chloro-3-methylphenol	**0.950**	**1.01**	1.33	1.33	71	76	55 - 97	6	21	
Acenaphthene	**0.444**	**0.497**	0.667	0.667	67	75	48 - 91	11	21	
4-Nitrophenol	**1.04**	**1.11**	1.33	1.33	78	83	53 - 102	7	20	
2,4-Dinitrotoluene	**0.496**	**0.524**	0.667	0.667	74	79	47 - 96	5	19	
Pentachlorophenol	**1.32**	**1.35**	1.33	1.33	99	102	35 - 125	2	26	
Pyrene	**0.540**	**0.545**	0.667	0.667	81	82	55 - 110	1	17	
Surrogate:										
2-Fluorophenol					*48*	*55*	*19 - 103*			
Phenol-d6					*55*	*61*	*30 - 103*			
Nitrobenzene-d5					*51*	*57*	*27 - 105*			
2-Fluorobiphenyl					*56*	*64*	*36 - 102*			
2,4,6-Tribromophenol					*76*	*74*	*33 - 110*			
Terphenyl-d14					*71*	*71*	*38 - 108*			

Date of Report: September 24, 2018
Samples Submitted: September 21, 2018
Laboratory Reference: 1809-229
Project: Foreman

TOTAL METALS
EPA 6010D/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**FC1-1**					
Laboratory ID:	09-229-01					
Arsenic	**ND**	11	EPA 6010D	9-21-18	9-21-18	
Cadmium	**ND**	0.57	EPA 6010D	9-21-18	9-21-18	
Chromium	**64**	0.57	EPA 6010D	9-21-18	9-21-18	
Lead	**27**	5.7	EPA 6010D	9-21-18	9-21-18	
Mercury	**ND**	0.28	EPA 7471B	9-21-18	9-21-18	
Client ID:	**FC1-2**					
Laboratory ID:	09-229-02					
Arsenic	**ND**	11	EPA 6010D	9-21-18	9-21-18	
Cadmium	**ND**	0.54	EPA 6010D	9-21-18	9-21-18	
Chromium	**11**	0.54	EPA 6010D	9-21-18	9-21-18	
Lead	**ND**	5.4	EPA 6010D	9-21-18	9-21-18	
Mercury	**ND**	0.27	EPA 7471B	9-21-18	9-21-18	

Date of Report: September 24, 2018
Samples Submitted: September 21, 2018
Laboratory Reference: 1809-229
Project: Foreman

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0921SM2					
Arsenic	**ND**	10	EPA 6010D	9-21-18	9-21-18	
Cadmium	**ND**	0.50	EPA 6010D	9-21-18	9-21-18	
Chromium	**ND**	0.50	EPA 6010D	9-21-18	9-21-18	
Lead	**ND**	5.0	EPA 6010D	9-21-18	9-21-18	
Laboratory ID:	MB0921S1					
Mercury	**ND**	0.25	EPA 7471B	9-21-18	9-21-18	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	09-138-01										
	ORIG	DUP									
Arsenic	**14.6**	**14.8**	NA	NA		NA		NA	2	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**43.8**	**50.1**	NA	NA		NA		NA	13	20	
Lead	**52.9**	**55.3**	NA	NA		NA		NA	5	20	
Laboratory ID:	09-213-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	09-138-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**106**	**105**	100	100	14.6	**92**	**91**	75-125	1	20	
Cadmium	**48.0**	**47.1**	50.0	50.0	ND	**96**	**94**	75-125	2	20	
Chromium	**145**	**147**	100	100	43.8	**101**	**103**	75-125	1	20	
Lead	**296**	**287**	250	250	52.9	**97**	**94**	75-125	3	20	
Laboratory ID:	09-213-01										
Mercury	**0.566**	**0.586**	0.500	0.500	0.0548	**102**	**106**	80-120	3	20	

Date of Report: September 24, 2018
Samples Submitted: September 21, 2018
Laboratory Reference: 1809-229
Project: Foreman

% MOISTURE

Date Analyzed: 9-21-18

Client ID	Lab ID	% Moisture
FC1-1	09-229-01	12
FC1-2	09-229-02	8

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: WSDOT
Project Number:
Project Name: Foreman
Project Manager: PAT SVOBODA
Sampled by: WSDOT

Turnaround Request (in working days)

(Check One) 24 hour

- ☐ Same Day
- ☑ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☐ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 09-229

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664	% Moisture
1	FCI-1	9/20	14:15	S	6				✓			✓						✓			X
2	FCI-2	9/21	11:00	S	6				✓			✓						✓			X

	Signature	Company	Date	Time
Relinquished	[signature]	WSDOT	9/21/18	11:10
Received	[signature]	ALPHA	9-21-18	11:10
Relinquished	[signature]	ALPHA	9-21-18	12:39
Received	[signature]	OE	9/21/18	1239
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Call when you receive these.

Chromatograms with final report ☐

Data Package: Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

APPENDIX 4 DISPOSAL TICKETS

PetroCard
MORE THAN JUST FUEL.

19 + CW

1st Load

401187

Phone (206) 621.9777 **Certified Weight Ticket**

Company _____ **Charge** ____ **Cash** X

Truck # _____ **Account #** _____

Trailer # _____ **Card #** _____

Weighmaster _____ **Signature** _____

16:53:47 20 Sep 2018

Weigh fee: 10.00
3215 4TH AVE S

Axle 1:	3240 lb
Axle 2:	5620 lb
Axle 3:	5660 lb
Total:	14520 lb

PetroCard™
MORE THAN JUST FUEL.

2nd. Load

401252

Phone (206) 621.9777 **Certified Weight Ticket**

Company X MARINE VACUME SERVICE **Charge** X **Cash** ____

Truck # X

Account # ____

Trailer # ____

Card # ____

Weighmaster ____

Signature X R.B. ALLEN

08:44:47 22 Sep 2018

Weigh fee: 10.00
3215 4TH AVE S

Axle 1: 10680 lb
Axle 2: 7540 lb
Total: 18220 lb

V152

PetroCard™
MORE THAN JUST FUEL.

Light Weight

52

401254

Phone (206) 621.9777 **Certified Weight Ticket**

Company MARINE VACUUM SERVICE **Charge** ____ **Cash** ✓

Truck # X **Account #** _____

Trailer # _____ **Card #** _____

Weighmaster _____ **Signature** X R B ALLEN

10:13:36 22 Sep 2018

Weigh fee: ~~10.00~~ $10.00

3215 4TH AVE S

Axle 1: 3620 lb
Axle 2: 7640 lb
Total: 11260 lb

W

PetroCard™
MORE THAN JUST FUEL.

Light Weight

401254

Phone (206) 621.9777 **Certified Weight Ticket**

Company MARINE VACUUM SERVICE **Charge** ____ **Cash** X

Truck # X **Account #** ____

Trailer # ____ **Card #** ____

Weighmaster ____ **Signature** X R B ALLEN

10:13:36 22 Sep 2018

Weigh fee: 10.00 $10.00

3215 4TH AVE S

Axle 1:	3620 lb
Axle 2:	7640 lb
Total:	11260 lb

WELCOME TO
KITIMAT SEATTLE GULL
TP53888936-001 KITIMAT SEATTLE GULL
3215 4TH AVE S
SEATTLE WA 98134

Descr.	qty	amount
SCALES	1	1.00
Sub Total		1.00
Tax		0.00
TOTAL		1.00
CASH $		1.00

THANKS, COME AGAIN
PLEASE COME AGAIN
206-621-9777
REG# 003 CSH# 009 DR# 01 TRAN# 38855
09/22/18 10:04:24 ST# 20

SEATTLE RECYCLE AND
DISPOSAL STATION

R E C E I P T

Bill Acct:CASH**
CASH CUSTOMERS

SITE:STS South Transfer Static
DATE:09/25/16 TICKET#:41071208
TIME IN:14:19 ID IN:MCA
TIME OUT:14:34 ID OUT:RJO
TURNAROUND TIME: 15
TRUCK:
ROUTE:Z-Not Specified

	LBS	TONS
GROSS:	16160	8.13
TARE:	15340	7.67
NET:	920	0.46

MATERIAL:	QTY	AMT
Garbage	920	$66.70

TIP FEE:	66.70
SPEC FEE:	0.00
TOTAL FEE:	**$66.70**
TENDERED:	66.70
CHANGE:	0.00

Payment Info:
5 - Credit Car $66.70

SIGNATURE: _____
NOTE:

WELCOME TO
KITIMAT SEATTLE GULL
TP53888936-001 KITIMAT SEATTLE GULL
3215 4TH AVE S
SEATTLE WA 98134

Descr.	qty	amount
< DUPLICATE RECEIPT >		
<CUSTOMER COPY>		
SCALES	1	10.00
Sub Total		10.00
Tax		0.00
TOTAL		10.00
CREDIT $		10.00

CARD TYPE: VISA
ACCT NUMBER: XXXX XXXX XXXX 1811
TRANS TYPE: SALE
APPROVAL: 012223 INVOICE: 036301
AMOUNT: $ 10.00

APPROVED 012223
****

THANKS, COME AGAIN
PLEASE COME AGAIN
206-621-9777
REG# 0003 CSH# 009 DR# 01 TRAN# 38807
09/22/18 08:30:26 ST# 20

APPENDIX 5 PHOTOS

SS-1 during investigation

SS-2 during investigation

SS-3 during investigation

SS-4 during investigation

SS-4 During investigation

General trash and debris scattered around the property

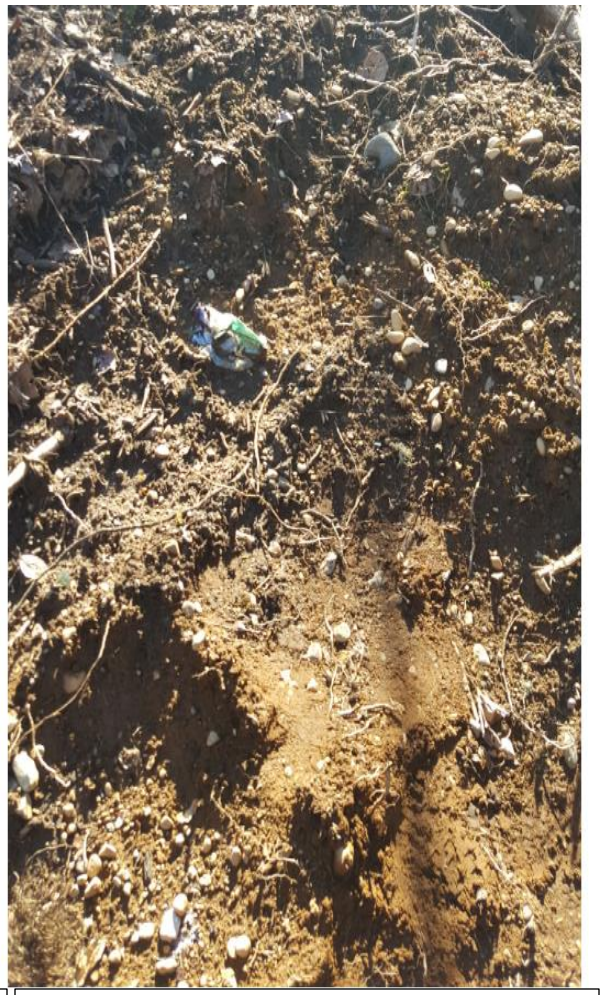
Grading and soil displacement on property

Soil displacement near SS-1

Soil displacement near SS-2

SS-2 Sample near soil displacement

SS3 of stockpile



SS4 of stockpile

Cleanup of SS-3 Area and confirmation sample area

Part of Cleanup of SS-4 area and confirmation sample taken from this area

Backfill of front area

Backfill of side area