

TECHNICAL MEMORANDUM

DATE December 28, 2020

Project No. 923-1000-006.5000

TO Jerome Cruz
Washington State Department of Ecology

CC Landsburg PLP Group

FROM Gary Zimmerman

EMAIL gary_zimmerman@golder.com

LANDSBURG MINE SITE DRUM REMOVAL ACTIONS

This technical memorandum summarizes the activities associated with the removal of five rusted and broken drums discovered during Stage 3 remedial actions at the Landsburg Mine Site (the Site). On September 14, 2020, five highly rusted and broken drums were discovered on the surface along the eastern edge of Area 9 during brush clearing of some blackberry bushes (Figure 1). The drums were located approximately 5 feet east of the area that was being capped. There was no liquid in the drums and no odors were noticed, but there was a small amount of black, solid, burnt-looking material in the drums. The rusted drum pieces and the drum contents were removed from the area where they were discovered and were placed on a plastic tarp and covered.

Ecology was notified of the discovery on September 16, 2020. The vegetated area along the eastern edge of Area 9 was visually inspected for any other non-native debris, and none was observed. All other edges of the backfilled trenches were cleared during Phase 2 remedial actions, and there were no drums or other non-native debris encountered.

During the initial removal of the drum debris, a few inches of soil were scraped across an approximate 10-foot by 10-foot area beneath where the drums were located to remove any rusted metals pieces and clear the area down to native soils and bedrock. To confirm that any impacts to the native soils and bedrock beneath where the drums were located had been removed, soil samples were collected and analyzed for Target Analyte List (TAL) metals, cyanide, volatile organic compounds (VOCs), chlorinated pesticides, polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), and Total Petroleum Hydrocarbons (TPH). Results of the two samples collected on September 14, 2020 were compared to the applicable Model Toxics Control Act (MTCA) soil cleanup levels (CUL). The soil CUL used in this evaluation was the MTCA Method A unrestricted land use or, if a Method A CUL is unavailable, the lower of either the Method B Cancer or the Method B Non-Cancer CUL. Applicable CULs for carcinogenic PAHs (cPAHs) were derived using Ecology Implementation Memo #10 "Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using Toxicity Equivalency Factors (TEFs)".

The September 14, 2020 analytical results indicated lead and PCB aroclor-1254 were detected with reported concentrations slightly above their applicable CULs. On October 7, 2020 and October 29, 2020, additional soil and bedrock was removed from the area beneath where the drums were located to remove soil with lead or aroclor-1254 at concentrations above residential CULs. Approximately 6 inches to a 1 foot of soil were removed from the area beneath the drums, and additional confirmation samples were collected of the remaining soils, to confirm unimpacted native soils had been reached. All soils removed from the drum discovery area were placed

in new 55-gallon steel drums. The debris residue present in the removed drum pieces and the excavated soils were characterized, and arrangements are being made for off-site disposal.

Confirmation sampling analytical results from the six soil samples collected of the native soil and bedrock beneath the area where the drums were removed indicate no analytes are present above CULs. The summarized confirmation sampling results are provided in Table 1. Copies of the laboratory analytical reports are provided in Appendix A.

GOLDER ASSOCIATES INC.



Joseph Ki, PE
Senior Project Engineer



Gary Zimmerman
Principal

JX/GLZ/sb

Attachments:

- Figure 1: Rusted Drums Discovery Location
- Table 1: Summary of Confirmation Sampling Results
- Appendix A: Laboratory Analytical Reports

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TABLE

Table 1: Summary of Confirmation Sampling Results

Group	Confirmation Sample ID	Confirmation Sample Date	Compound	Confirmation Result (mg/Kg)	Applicable MTCA Soil CUL (mg/Kg)
CPAHs	Sample-2	9/18/2020	Benzo[a]anthracene	0.021	See Note 1
CPAHs	Sample-1	9/18/2020	Benzo[b]fluoranthene	0.015	See Note 1
CPAHs	Sample-2	9/18/2020	Benzo[b]fluoranthene	0.027	See Note 1
CPAHs	Sample-1	9/18/2020	Benzo[g,h,i]perylene	0.008	N/A
CPAHs	Sample-2	9/18/2020	Benzo[g,h,i]perylene	0.035	N/A
CPAHs	Sample-1	9/18/2020	Chrysene	0.013	See Note 1
CPAHs	Sample-2	9/18/2020	Chrysene	0.038	See Note 1
CPAHs	Sample-1	9/18/2020	Fluoranthene	0.014	3200
CPAHs	Sample-2	9/18/2020	Fluoranthene	0.033	3200
CPAHs	Sample-1	9/18/2020	Naphthalene	0.052	5
CPAHs	Sample-2	9/18/2020	Naphthalene	0.52	5
CPAHs	Sample-1	9/18/2020	Phenanthrene	0.022	N/A
CPAHs	Sample-2	9/18/2020	Phenanthrene	0.12	N/A
CPAHs	Sample-1	9/18/2020	Pyrene	0.019	2400
CPAHs	Sample-2	9/18/2020	Pyrene	0.041	2400
CPAHs	Sample-1	9/18/2020	Cumulative Sample-1, Calculated (See Note 2)	0.00163	0.1
CPAHs	Sample-2	9/18/2020	Cumulative Sample-2, Calculated (See Note 2)	0.00518	0.1
Inorganics	Sample-1-A	10/7/2020	Cyanide, Total	0.28	50
Inorganics	Sample-1-B	10/7/2020	Cyanide, Total	0.37	50
Metal	Sample-1-A	10/7/2020	Aluminum	6100	80000
Metal	Sample-1-B	10/7/2020	Aluminum	5700	80000
Metal	Sample-1-B	10/7/2020	Arsenic	13	20
Metal	Sample-1-A	10/7/2020	Barium	45	16000
Metal	Sample-1-B	10/7/2020	Barium	43	16000
Metal	Sample-1	9/18/2020	Cadmium	1.5	2
Metal	Sample-2	9/18/2020	Cadmium	1	2
Metal	Sample-1-A	10/7/2020	Calcium	660	N/A
Metal	Sample-1-B	10/7/2020	Calcium	820	N/A
Metal	Sample-1-A	10/7/2020	Chromium	48	2000
Metal	Sample-1-B	10/7/2020	Chromium	44	2000
Metal	Sample-1-A	10/7/2020	Cobalt	12	24

Table 1: Summary of Confirmation Sampling Results

Group	Confirmation Sample ID	Confirmation Sample Date	Compound	Confirmation Result (mg/Kg)	Applicable MTCA Soil CUL (mg/Kg)
Metal	Sample-1-B	10/7/2020	Cobalt	11	24
Metal	Sample-1-A	10/7/2020	Copper	37	3200
Metal	Sample-1-B	10/7/2020	Copper	38	3200
Metal	Sample-1-A	10/7/2020	Iron	27000	56000
Metal	Sample-1-B	10/7/2020	Iron	29000	56000
Metal	Sample-1-A	10/7/2020	Lead	140	250
Metal	Sample-1-B	10/7/2020	Lead	160	250
Metal	Sample-1-A	10/7/2020	Magnesium	720	N/A
Metal	Sample-1-B	10/7/2020	Magnesium	700	N/A
Metal	Sample-1-A	10/7/2020	Manganese	280	3700
Metal	Sample-1-B	10/7/2020	Manganese	270	3700
Metal	Sample-2	9/18/2020	Mercury	0.82	2
Metal	Sample-1-A	10/7/2020	Nickel	52	1600
Metal	Sample-1-B	10/7/2020	Nickel	95	1600
Metal	Sample-1-A	10/7/2020	Potassium	700	N/A
Metal	Sample-1-B	10/7/2020	Potassium	690	N/A
Metal	Sample-2	9/18/2020	Sodium	280	N/A
Metal	Sample-1-A	10/7/2020	Vanadium	35	400
Metal	Sample-1-B	10/7/2020	Vanadium	37	400
Metal	Sample-1-A	10/7/2020	Zinc	81	24000
Metal	Sample-1-B	10/7/2020	Zinc	82	24000
PCB	Sample-2	9/18/2020	Aroclor 1242	0.24	N/A
PCB	Sample-1-A-1029	10/29/2020	Aroclor 1254	0.1	0.5
PCB	Sample-1-B-1029	10/29/2020	Aroclor 1254	0.17	0.5
Pesticides	Sample-1	9/18/2020	4,4'-DDE	0.075	2.9
Pesticides	Sample-1-B	10/7/2020	4,4'-DDE	0.014	2.9
Pesticides	Sample-1-A	10/7/2020	4,4'-DDT	0.027	3
Pesticides	Sample-1	9/18/2020	Dieldrin	0.049	0.063
Pesticides	Sample-2	9/18/2020	Dieldrin	0.022	0.063
Pesticides	Sample-1	9/18/2020	Endosulfan I	0.029	480
Pesticides	Sample-1	9/18/2020	Endrin Aldehyde	0.12	24
Pesticides	Sample-1	9/18/2020	gamma-Chlordane	0.042	2.9
Pesticides	Sample-2	9/18/2020	gamma-Chlordane	0.016	2.9

Table 1: Summary of Confirmation Sampling Results

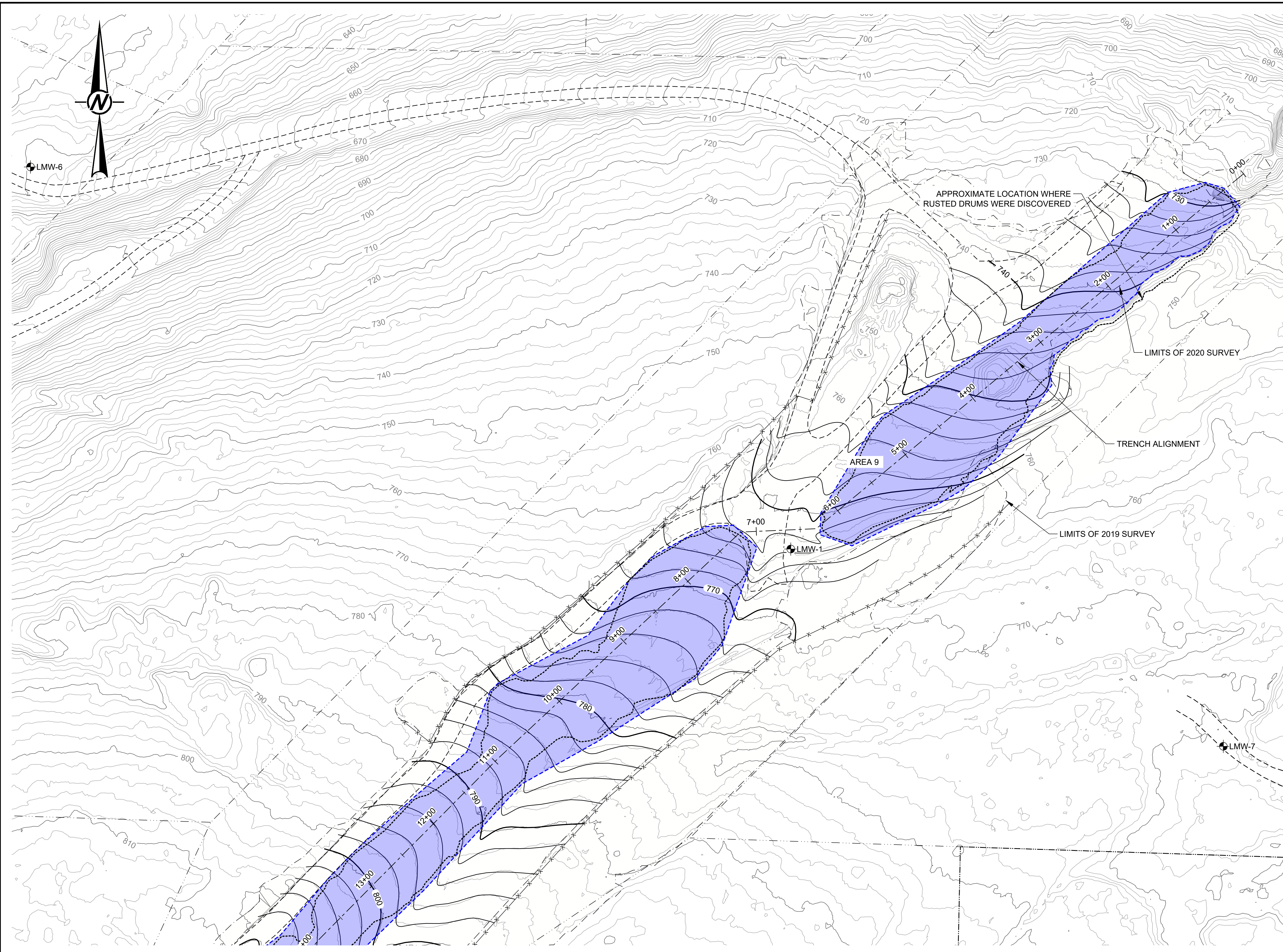
Group	Confirmation Sample ID	Confirmation Sample Date	Compound	Confirmation Result (mg/Kg)	Applicable MTCA Soil CUL (mg/Kg)
Pesticides	Sample-1	9/18/2020	Methoxychlor	0.048	400
Pesticides	Sample-2	9/18/2020	Methoxychlor	0.029	400
SVOC	Sample-1	9/18/2020	1-Methylnaphthalene	0.015	34
SVOC	Sample-2	9/18/2020	1-Methylnaphthalene	0.082	34
SVOC	Sample-1	9/18/2020	2-Methylnaphthalene	0.02	320
SVOC	Sample-2	9/18/2020	2-Methylnaphthalene	0.12	320
SVOC	Sample-1	9/18/2020	Benzyl Alcohol	0.048	8000
SVOC	Sample-1-A	10/7/2020	bis(2-Ethylhexyl)phthalate	0.81	71
SVOC	Sample-1-B	10/7/2020	bis(2-Ethylhexyl)phthalate	0.74	71
SVOC	Sample-1	9/18/2020	Butylbenzylphthalate	0.21	530
SVOC	Sample-2	9/18/2020	Butylbenzylphthalate	5	530
SVOC	Sample-1	9/18/2020	Di-n-butylphthalate	1.1	8000
SVOC	Sample-1	9/18/2020	Di-n-octylphthalate	0.37	800
SVOC	Sample-2	9/18/2020	Di-n-octylphthalate	2.4	800
SVOC	Sample-1	9/18/2020	Isophorone	0.13	1100
SVOC	Sample-2	9/18/2020	Isophorone	0.37	1100
TPH	Sample-1	9/18/2020	TPH-Diesel Range	81	2000
TPH	Sample-2	9/18/2020	TPH-Diesel Range	320	2000
TPH	Sample-1-A	10/7/2020	TPH-Lube Oil Range	150	2000
TPH	Sample-1-B	10/7/2020	TPH-Lube Oil Range	140	2000
VOA	Sample-1-A	10/7/2020	Acetone	0.022	72000
VOA	Sample-1-B	10/7/2020	Acetone	0.036	72000

Notes:

1. Applicable cleanup level derived using Ecology Implementation Memo #10 "Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using Toxicity Equivalency Factors (TEFs)".
2. Sample-1 and Sample 2 Cumulative Results calculated using toxicity equivalency factor for the individual CPAH in the mixture in accordance with Ecology Implementation Memo #10, and compared with applicable Benzo(a)pyrene cleanup level of 0.1 mg/Kg.

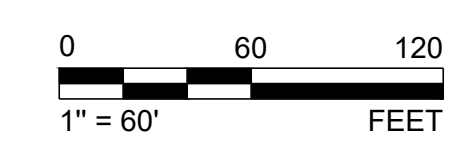
FIGURE

Path: \\westernmont.golder.com\golder\gis\landburg\mna\09_PROD\EC\9231000006_Remedia\15000_Stage\Construction\02_PROD\CON\DWG\1 | File Name: 9231000006_5000_001.dwg | Last Edited By: hlyahr | Date: 2020-12-09 Time: 2:49:47 PM | Printed By: hlyahr | Date: 2020-12-09 Time: 2:50:48 PM



LEGEND	
	PROPOSED TRENCH BACKFILL REGRADE SURFACE - INDEX CONTOUR
	PROPOSED TRENCH BACKFILL REGRADE SURFACE - INTERMEDIATE CONTOUR
	EXISTING MONITORING WELL
	PROPERTY BOUNDARY
	PARCEL BOUNDARY
	SURVEY LIMITS
	ORIGINAL TRENCH PERIMETER
	EXISTING CHAINLINK FENCE
	EXISTING UNPAVED ROAD
	PROPOSED GEOMEMBRANE

NOT FOR CONSTRUCTION



SEAL	CLIENT	LANDSBURG MINE SITE PLP GROUP
	CONSULTANT	
	REDMOND	18300 NE UNION HILL RD #200
	REDMOND, WA	98052
	USA	
	[+1] (425) 883-0777	
	www.golder.com	

A	2020-12-09	DRAFT FOR REVIEW	JX	REDMOND	GZ	GZ
REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED

PROJECT	LANDSBURG MINE SITE
	MTCA REMEDIAL ACTION
TITLE	RUSTED DRUMS DISCOVERY LOCATION
PROJECT NO.	9231000006
PHASE	5000
REV.	0
of	
FIGURE	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIC (22" x 34")

APPENDIX A

Laboratory Analytical Reports



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

October 1, 2020

Gary Zimmerman
Golder Associates Inc.
18300 NE Union Hill Road
Suite 200
Redmond, WA 98052-3333

Re: Analytical Data for Project 923-1000-006.5000
Laboratory Reference No. 2009-190

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on September 18, 2020.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 1, 2020
Samples Submitted: September 18, 2020
Laboratory Reference: 2009-190
Project: 923-1000-006.5000

Case Narrative

Samples were collected on September 18, 2020 and received by the laboratory on September 18, 2020. 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 8270E/SIM Analysis

Sample Sample-1 had one surrogate each of both acid and base recovery outside of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

Total Metals EPA 6010D/7471B Analysis

Due to the high concentration of Aluminum, Iron and Lead in the QC sample, the amount spiked was insufficient for meaningful MS/MSD recovery data. The Spike Blank recovery was 99% for Aluminum, 99% for Iron and 102% for Lead.

The Matrix Spike/ Matrix Spike Duplicate recoveries for Chromium, Calcium and for Manganese are outside control limits due to matrix inhomogeneity . The samples were re-extracted and re-analyzed with similar results. The Spike Blank recovery was 100% for Chromium, 101% for Iron and 102 % for Calcium.

The Matrix Spike/Matrix Spike Duplicate RPD for Barium, Chromium, Manganese and Lead is outside control limits due to matrix Inhomogeneity. The samples were re-extracted and re-analyzed with similar results.

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: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**HYDROCARBON IDENTIFICATION
 NWTPH-HCID**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1					
Laboratory ID:	09-190-01					
Gasoline Range Organics	Detected	22	NWTPH-HCID	9-22-20	9-23-20	
Diesel Range Organics	Detected	55	NWTPH-HCID	9-22-20	9-23-20	
Lube Oil Range Organics	Detected	110	NWTPH-HCID	9-22-20	9-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				

Client ID:	Sample-2					
Laboratory ID:	09-190-02					
Gasoline Range Organics	Detected	22	NWTPH-HCID	9-22-20	9-23-20	
Diesel Range Organics	Detected	56	NWTPH-HCID	9-22-20	9-23-20	
Lube Oil Range Organics	Detected	110	NWTPH-HCID	9-22-20	9-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**HYDROCARBON IDENTIFICATION
 NWTPH-HCID
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0922S3					
Gasoline Range Organics	ND	20	NWTPH-HCID	9-22-20	9-23-20	
Diesel Range Organics	ND	50	NWTPH-HCID	9-22-20	9-23-20	
Lube Oil Range Organics	ND	100	NWTPH-HCID	9-22-20	9-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

VOLATILE ORGANICS EPA 8260D
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1					
Laboratory ID:	09-190-01					
Dichlorodifluoromethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Chloromethane	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
Vinyl Chloride	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Bromomethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Chloroethane	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
Trichlorofluoromethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
1,1-Dichloroethene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Acetone	0.061	0.015	EPA 8260D	9-21-20	9-21-20	
Iodomethane	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
Carbon Disulfide	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Methylene Chloride	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
(trans) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
1,1-Dichloroethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Vinyl Acetate	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
2,2-Dichloropropane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
(cis) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
2-Butanone	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
Bromochloromethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Chloroform	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Carbon Tetrachloride	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
1,1-Dichloropropene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Benzene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
1,2-Dichloroethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Trichloroethene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
1,2-Dichloropropane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Dibromomethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Bromodichloromethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
2-Chloroethyl Vinyl Ether	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Methyl Isobutyl Ketone	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
Toluene	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

VOLATILE ORGANICS EPA 8260D
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1					
Laboratory ID:	09-190-01					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Tetrachloroethene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
1,3-Dichloropropane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
2-Hexanone	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
Dibromochloromethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
1,2-Dibromoethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Chlorobenzene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Ethylbenzene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
m,p-Xylene	ND	0.0029	EPA 8260D	9-21-20	9-21-20	
o-Xylene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Styrene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Bromoform	ND	0.0073	EPA 8260D	9-21-20	9-21-20	
Isopropylbenzene	ND	0.0015	EPA 8260D	9-21-20	9-21-20	
Bromobenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
1,1,2,2-Tetrachloroethane	ND	0.055	EPA 8260D	9-21-20	9-21-20	
1,2,3-Trichloropropane	ND	0.055	EPA 8260D	9-21-20	9-21-20	
n-Propylbenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
2-Chlorotoluene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
4-Chlorotoluene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
1,3,5-Trimethylbenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
tert-Butylbenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
1,2,4-Trimethylbenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
sec-Butylbenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
1,3-Dichlorobenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
p-Isopropyltoluene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
1,4-Dichlorobenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
1,2-Dichlorobenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
n-Butylbenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
1,2-Dibromo-3-chloropropane	ND	0.28	EPA 8260D	9-21-20	9-21-20	
1,2,4-Trichlorobenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
Hexachlorobutadiene	ND	0.28	EPA 8260D	9-21-20	9-21-20	
Naphthalene	ND	0.35	EPA 8260D	9-21-20	9-21-20	
1,2,3-Trichlorobenzene	ND	0.055	EPA 8260D	9-21-20	9-21-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>91</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>80</i>	<i>71-130</i>				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

VOLATILE ORGANICS EPA 8260D
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-2					
Laboratory ID:	09-190-02					
Dichlorodifluoromethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Chloromethane	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
Vinyl Chloride	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Bromomethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Chloroethane	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
Trichlorofluoromethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
1,1-Dichloroethene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Acetone	0.067	0.017	EPA 8260D	9-21-20	9-21-20	
Iodomethane	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Methylene Chloride	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
(trans) 1,2-Dichloroethene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Methyl t-Butyl Ether	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
1,1-Dichloroethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Vinyl Acetate	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
2,2-Dichloropropane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
(cis) 1,2-Dichloroethene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
2-Butanone	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
Bromochloromethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Chloroform	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
1,1,1-Trichloroethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Carbon Tetrachloride	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
1,1-Dichloropropene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Benzene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
1,2-Dichloroethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Trichloroethene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
1,2-Dichloropropane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Dibromomethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Bromodichloromethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
2-Chloroethyl Vinyl Ether	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
(cis) 1,3-Dichloropropene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Methyl Isobutyl Ketone	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
Toluene	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
(trans) 1,3-Dichloropropene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

VOLATILE ORGANICS EPA 8260D
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-2					
Laboratory ID:	09-190-02					
1,1,2-Trichloroethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Tetrachloroethene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
1,3-Dichloropropane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
2-Hexanone	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
Dibromochloromethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
1,2-Dibromoethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Chlorobenzene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Ethylbenzene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
m,p-Xylene	ND	0.0033	EPA 8260D	9-21-20	9-21-20	
o-Xylene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Styrene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Bromoform	ND	0.0083	EPA 8260D	9-21-20	9-21-20	
Isopropylbenzene	ND	0.0017	EPA 8260D	9-21-20	9-21-20	
Bromobenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
1,1,2,2-Tetrachloroethane	ND	0.063	EPA 8260D	9-21-20	9-21-20	
1,2,3-Trichloropropane	ND	0.063	EPA 8260D	9-21-20	9-21-20	
n-Propylbenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
2-Chlorotoluene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
4-Chlorotoluene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
1,3,5-Trimethylbenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
tert-Butylbenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
1,2,4-Trimethylbenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
sec-Butylbenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
1,3-Dichlorobenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
p-Isopropyltoluene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
1,4-Dichlorobenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
1,2-Dichlorobenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
n-Butylbenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
1,2-Dibromo-3-chloropropane	ND	0.32	EPA 8260D	9-21-20	9-21-20	
1,2,4-Trichlorobenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
Hexachlorobutadiene	ND	0.32	EPA 8260D	9-21-20	9-21-20	
Naphthalene	ND	0.41	EPA 8260D	9-21-20	9-21-20	
1,2,3-Trichlorobenzene	ND	0.063	EPA 8260D	9-21-20	9-21-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>86</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>72</i>	<i>71-130</i>				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0921S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Chloromethane	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Bromomethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Chloroethane	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Acetone	ND	0.010	EPA 8260D	9-21-20	9-21-20	
Iodomethane	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Methylene Chloride	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
2-Butanone	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
Bromochloromethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Chloroform	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Benzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Trichloroethene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Dibromomethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
Toluene	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0921S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
2-Hexanone	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Chlorobenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Ethylbenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
m,p-Xylene	ND	0.0020	EPA 8260D	9-21-20	9-21-20	
o-Xylene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Styrene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Bromoform	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Bromobenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	9-21-20	9-21-20	
Naphthalene	ND	0.0064	EPA 8260D	9-21-20	9-21-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	9-21-20	9-21-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>114</i>	<i>71-130</i>				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0921S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0574	0.0519	0.0500	0.0500	115	104	55-126	10	17	
Benzene	0.0597	0.0540	0.0500	0.0500	119	108	65-121	10	16	
Trichloroethene	0.0560	0.0521	0.0500	0.0500	112	104	74-126	7	16	
Toluene	0.0541	0.0495	0.0500	0.0500	108	99	71-121	9	16	
Chlorobenzene	0.0505	0.0459	0.0500	0.0500	101	92	72-123	10	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>111</i>	<i>106</i>	<i>74-131</i>			
<i>Toluene-d8</i>					<i>102</i>	<i>100</i>	<i>78-128</i>			
<i>4-Bromofluorobenzene</i>					<i>107</i>	<i>104</i>	<i>71-130</i>			



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

SEMIVOLATILE ORGANICS EPA 8270E/SIM
 page 1 of 2

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1					
Laboratory ID:	09-190-01					
n-Nitrosodimethylamine	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Pyridine	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Phenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Aniline	ND	0.18	EPA 8270E	9-22-20	9-23-20	
bis(2-Chloroethyl)ether	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2-Chlorophenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
1,3-Dichlorobenzene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
1,4-Dichlorobenzene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Benzyl alcohol	0.048	0.037	EPA 8270E	9-22-20	9-24-20	
1,2-Dichlorobenzene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2-Methylphenol (o-Cresol)	ND	0.037	EPA 8270E	9-22-20	9-23-20	
bis(2-Chloroisopropyl)ether	ND	0.037	EPA 8270E	9-22-20	9-23-20	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.037	EPA 8270E	9-22-20	9-23-20	
n-Nitroso-di-n-propylamine	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Hexachloroethane	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Nitrobenzene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Isophorone	0.13	0.037	EPA 8270E	9-22-20	9-23-20	
2-Nitrophenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2,4-Dimethylphenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
bis(2-Chloroethoxy)methane	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2,4-Dichlorophenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
1,2,4-Trichlorobenzene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Naphthalene	0.052	0.037	EPA 8270E	9-22-20	9-23-20	
4-Chloroaniline	ND	0.18	EPA 8270E	9-22-20	9-23-20	
Hexachlorobutadiene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
4-Chloro-3-methylphenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2-Methylnaphthalene	0.020	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
1-Methylnaphthalene	0.015	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Hexachlorocyclopentadiene	ND	0.10	EPA 8270E	9-22-20	9-23-20	
2,4,6-Trichlorophenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2,3-Dichloroaniline	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2,4,5-Trichlorophenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2-Chloronaphthalene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2-Nitroaniline	ND	0.037	EPA 8270E	9-22-20	9-23-20	
1,4-Dinitrobenzene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Dimethylphthalate	ND	0.037	EPA 8270E	9-22-20	9-23-20	
1,3-Dinitrobenzene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2,6-Dinitrotoluene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
1,2-Dinitrobenzene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Acenaphthylene	ND	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
3-Nitroaniline	ND	0.037	EPA 8270E	9-22-20	9-23-20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

SEMIVOLATILE ORGANICS EPA 8270E/SIM
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1					
Laboratory ID:	09-190-01					
2,4-Dinitrophenol	ND	0.41	EPA 8270E	9-22-20	9-23-20	
Acenaphthene	ND	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
4-Nitrophenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2,4-Dinitrotoluene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Dibenzofuran	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2,3,5,6-Tetrachlorophenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
2,3,4,6-Tetrachlorophenol	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Diethylphthalate	ND	0.18	EPA 8270E	9-22-20	9-23-20	
4-Chlorophenyl-phenylether	ND	0.037	EPA 8270E	9-22-20	9-23-20	
4-Nitroaniline	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Fluorene	ND	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
4,6-Dinitro-2-methylphenol	ND	0.43	EPA 8270E	9-22-20	9-23-20	
n-Nitrosodiphenylamine	ND	0.037	EPA 8270E	9-22-20	9-23-20	
1,2-Diphenylhydrazine	ND	0.037	EPA 8270E	9-22-20	9-23-20	
4-Bromophenyl-phenylether	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Hexachlorobenzene	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Pentachlorophenol	ND	0.18	EPA 8270E	9-22-20	9-23-20	
Phenanthrene	0.022	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Anthracene	ND	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Carbazole	ND	0.037	EPA 8270E	9-22-20	9-23-20	
Di-n-butylphthalate	1.1	0.18	EPA 8270E	9-22-20	9-23-20	
Fluoranthene	0.014	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Pyrene	0.019	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Butylbenzylphthalate	0.21	0.18	EPA 8270E	9-22-20	9-23-20	
bis-2-Ethylhexyladipate	ND	0.18	EPA 8270E	9-22-20	9-23-20	
3,3'-Dichlorobenzidine	ND	0.18	EPA 8270E	9-22-20	9-23-20	
Benzo[a]anthracene	ND	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Chrysene	0.013	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
bis(2-Ethylhexyl)phthalate	2.1	0.18	EPA 8270E	9-22-20	9-23-20	
Di-n-octylphthalate	0.37	0.18	EPA 8270E	9-22-20	9-23-20	
Benzo[b]fluoranthene	0.015	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Benzo(j,k)fluoranthene	ND	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Benzo[a]pyrene	ND	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Indeno[1,2,3-cd]pyrene	ND	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Dibenz[a,h]anthracene	ND	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
Benzo[g,h,i]perylene	0.0080	0.0073	EPA 8270E/SIM	9-22-20	9-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	29	22 - 109				
Phenol-d6	34	36 - 110				Q
Nitrobenzene-d5	36	31 - 109				
2-Fluorobiphenyl	48	45 - 107				
2,4,6-Tribromophenol	45	43 - 124				
Terphenyl-d14	46	52 - 118				Q



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

SEMIVOLATILE ORGANICS EPA 8270E/SIM
 page 1 of 2

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-2					
Laboratory ID:	09-190-02					
n-Nitrosodimethylamine	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Pyridine	ND	3.7	EPA 8270E	9-22-20	9-23-20	
Phenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Aniline	ND	1.9	EPA 8270E	9-22-20	9-23-20	
bis(2-Chloroethyl)ether	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2-Chlorophenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
1,3-Dichlorobenzene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
1,4-Dichlorobenzene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Benzyl alcohol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
1,2-Dichlorobenzene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2-Methylphenol (o-Cresol)	ND	0.37	EPA 8270E	9-22-20	9-23-20	
bis(2-Chloroisopropyl)ether	ND	0.37	EPA 8270E	9-22-20	9-23-20	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.37	EPA 8270E	9-22-20	9-23-20	
n-Nitroso-di-n-propylamine	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Hexachloroethane	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Nitrobenzene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Isophorone	0.37	0.37	EPA 8270E	9-22-20	9-23-20	
2-Nitrophenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2,4-Dimethylphenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
bis(2-Chloroethoxy)methane	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2,4-Dichlorophenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
1,2,4-Trichlorobenzene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Naphthalene	0.52	0.37	EPA 8270E	9-22-20	9-23-20	
4-Chloroaniline	ND	1.9	EPA 8270E	9-22-20	9-23-20	
Hexachlorobutadiene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
4-Chloro-3-methylphenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2-Methylnaphthalene	0.12	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
1-Methylnaphthalene	0.082	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Hexachlorocyclopentadiene	ND	1.0	EPA 8270E	9-22-20	9-23-20	
2,4,6-Trichlorophenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2,3-Dichloroaniline	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2,4,5-Trichlorophenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2-Chloronaphthalene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2-Nitroaniline	ND	0.37	EPA 8270E	9-22-20	9-23-20	
1,4-Dinitrobenzene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Dimethylphthalate	ND	0.37	EPA 8270E	9-22-20	9-23-20	
1,3-Dinitrobenzene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2,6-Dinitrotoluene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
1,2-Dinitrobenzene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Acenaphthylene	ND	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
3-Nitroaniline	ND	0.37	EPA 8270E	9-22-20	9-23-20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

SEMIVOLATILE ORGANICS EPA 8270E/SIM
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-2					
Laboratory ID:	09-190-02					
2,4-Dinitrophenol	ND	4.2	EPA 8270E	9-22-20	9-23-20	
Acenaphthene	ND	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
4-Nitrophenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2,4-Dinitrotoluene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Dibenzofuran	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2,3,5,6-Tetrachlorophenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
2,3,4,6-Tetrachlorophenol	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Diethylphthalate	ND	1.9	EPA 8270E	9-22-20	9-23-20	
4-Chlorophenyl-phenylether	ND	0.37	EPA 8270E	9-22-20	9-23-20	
4-Nitroaniline	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Fluorene	ND	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
4,6-Dinitro-2-methylphenol	ND	4.3	EPA 8270E	9-22-20	9-23-20	
n-Nitrosodiphenylamine	ND	0.37	EPA 8270E	9-22-20	9-23-20	
1,2-Diphenylhydrazine	ND	0.37	EPA 8270E	9-22-20	9-23-20	
4-Bromophenyl-phenylether	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Hexachlorobenzene	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Pentachlorophenol	ND	1.9	EPA 8270E	9-22-20	9-23-20	
Phenanthrene	0.12	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Anthracene	ND	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Carbazole	ND	0.37	EPA 8270E	9-22-20	9-23-20	
Di-n-butylphthalate	10	1.9	EPA 8270E	9-22-20	9-23-20	
Fluoranthene	0.033	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Pyrene	0.041	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Butylbenzylphthalate	5.0	1.9	EPA 8270E	9-22-20	9-23-20	
bis-2-Ethylhexyladipate	ND	1.9	EPA 8270E	9-22-20	9-23-20	
3,3'-Dichlorobenzidine	ND	1.9	EPA 8270E	9-22-20	9-23-20	
Benzo[a]anthracene	0.021	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Chrysene	0.038	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
bis(2-Ethylhexyl)phthalate	13	1.9	EPA 8270E	9-22-20	9-23-20	
Di-n-octylphthalate	2.4	1.9	EPA 8270E	9-22-20	9-23-20	
Benzo[b]fluoranthene	0.027	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Benzo(j,k)fluoranthene	ND	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Benzo[a]pyrene	ND	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Indeno[1,2,3-cd]pyrene	ND	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Dibenz[a,h]anthracene	ND	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
Benzo[g,h,i]perylene	0.035	0.015	EPA 8270E/SIM	9-22-20	9-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	49	22 - 109				
Phenol-d6	43	36 - 110				
Nitrobenzene-d5	69	31 - 109				
2-Fluorobiphenyl	71	45 - 107				
2,4,6-Tribromophenol	52	43 - 124				
Terphenyl-d14	65	52 - 118				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

page 1 of 2

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0922S1					
n-Nitrosodimethylamine	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Pyridine	ND	0.43	EPA 8270E	9-22-20	9-22-20	
Phenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Aniline	ND	0.17	EPA 8270E	9-22-20	9-22-20	
bis(2-Chloroethyl)ether	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2-Chlorophenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
1,3-Dichlorobenzene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
1,4-Dichlorobenzene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Benzyl alcohol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
1,2-Dichlorobenzene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2-Methylphenol (o-Cresol)	ND	0.033	EPA 8270E	9-22-20	9-22-20	
bis(2-Chloroisopropyl)ether	ND	0.033	EPA 8270E	9-22-20	9-22-20	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.033	EPA 8270E	9-22-20	9-22-20	
n-Nitroso-di-n-propylamine	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Hexachloroethane	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Nitrobenzene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Isophorone	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2-Nitrophenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2,4-Dimethylphenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
bis(2-Chloroethoxy)methane	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2,4-Dichlorophenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
1,2,4-Trichlorobenzene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Naphthalene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
4-Chloroaniline	ND	0.17	EPA 8270E	9-22-20	9-22-20	
Hexachlorobutadiene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
4-Chloro-3-methylphenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Hexachlorocyclopentadiene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2,4,6-Trichlorophenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2,3-Dichloroaniline	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2,4,5-Trichlorophenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2-Chloronaphthalene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2-Nitroaniline	ND	0.033	EPA 8270E	9-22-20	9-22-20	
1,4-Dinitrobenzene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Dimethylphthalate	ND	0.033	EPA 8270E	9-22-20	9-22-20	
1,3-Dinitrobenzene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2,6-Dinitrotoluene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
1,2-Dinitrobenzene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
3-Nitroaniline	ND	0.033	EPA 8270E	9-22-20	9-22-20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0922S1					
2,4-Dinitrophenol	ND	0.17	EPA 8270E	9-22-20	9-22-20	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
4-Nitrophenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2,4-Dinitrotoluene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Dibenzofuran	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2,3,5,6-Tetrachlorophenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
2,3,4,6-Tetrachlorophenol	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Diethylphthalate	ND	0.17	EPA 8270E	9-22-20	9-22-20	
4-Chlorophenyl-phenylether	ND	0.033	EPA 8270E	9-22-20	9-22-20	
4-Nitroaniline	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Fluorene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
4,6-Dinitro-2-methylphenol	ND	0.17	EPA 8270E	9-22-20	9-22-20	
n-Nitrosodiphenylamine	ND	0.033	EPA 8270E	9-22-20	9-22-20	
1,2-Diphenylhydrazine	ND	0.033	EPA 8270E	9-22-20	9-22-20	
4-Bromophenyl-phenylether	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Hexachlorobenzene	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Pentachlorophenol	ND	0.23	EPA 8270E	9-22-20	9-22-20	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Anthracene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Carbazole	ND	0.033	EPA 8270E	9-22-20	9-22-20	
Di-n-butylphthalate	ND	0.17	EPA 8270E	9-22-20	9-22-20	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Pyrene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Butylbenzylphthalate	ND	0.17	EPA 8270E	9-22-20	9-22-20	
bis-2-Ethylhexyladipate	ND	0.17	EPA 8270E	9-22-20	9-22-20	
3,3'-Dichlorobenzidine	ND	0.17	EPA 8270E	9-22-20	9-22-20	
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Chrysene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
bis(2-Ethylhexyl)phthalate	ND	0.17	EPA 8270E	9-22-20	9-22-20	
Di-n-octylphthalate	ND	0.17	EPA 8270E	9-22-20	9-22-20	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Indeno[1,2,3-cd]pyrene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	9-22-20	9-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	66	22 - 109				
Phenol-d6	63	36 - 110				
Nitrobenzene-d5	65	31 - 109				
2-Fluorobiphenyl	63	45 - 107				
2,4,6-Tribromophenol	64	43 - 124				
Terphenyl-d14	67	52 - 118				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	09-138-03										
	MS	MSD	MS	MSD		MS	MSD				
Phenol	0.736	0.728	1.33	1.33	ND	55	55	30 - 108	1	37	
2-Chlorophenol	0.797	0.757	1.33	1.33	ND	60	57	30 - 113	5	39	
1,4-Dichlorobenzene	0.370	0.346	0.667	0.667	ND	55	52	24 - 116	7	35	
n-Nitroso-di-n-propylamine	0.378	0.379	0.667	0.667	ND	57	57	34 - 112	0	34	
1,2,4-Trichlorobenzene	0.392	0.368	0.667	0.667	ND	59	55	34 - 115	6	38	
4-Chloro-3-methylphenol	0.888	0.916	1.33	1.33	ND	67	69	41 - 117	3	26	
Acenaphthene	0.376	0.385	0.667	0.667	ND	56	58	41 - 111	2	21	
4-Nitrophenol	0.880	0.880	1.33	1.33	ND	66	66	30 - 127	0	32	
2,4-Dinitrotoluene	0.364	0.373	0.667	0.667	ND	55	56	32 - 114	2	30	
Pentachlorophenol	0.743	0.743	1.33	1.33	ND	56	56	36 - 147	0	37	
Pyrene	0.416	0.435	0.667	0.667	ND	62	65	33 - 127	4	33	
<i>Surrogate:</i>											
2-Fluorophenol						59	55	22 - 109			
Phenol-d6						58	58	36 - 110			
Nitrobenzene-d5						61	59	31 - 109			
2-Fluorobiphenyl						58	58	45 - 107			
2,4,6-Tribromophenol						65	65	43 - 124			
Terphenyl-d14						58	59	52 - 118			



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1					
Laboratory ID:	09-190-01					
Aroclor 1016	ND	1.1	EPA 8082A	9-21-20	9-28-20	
Aroclor 1221	ND	1.1	EPA 8082A	9-21-20	9-28-20	
Aroclor 1232	ND	1.1	EPA 8082A	9-21-20	9-28-20	
Aroclor 1242	ND	1.1	EPA 8082A	9-21-20	9-28-20	
Aroclor 1248	ND	1.1	EPA 8082A	9-21-20	9-28-20	
Aroclor 1254	3.5	1.1	EPA 8082A	9-21-20	9-28-20	
Aroclor 1260	ND	1.1	EPA 8082A	9-21-20	9-28-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	---	46-125				S
Client ID:	Sample-2					
Laboratory ID:	09-190-02					
Aroclor 1016	ND	0.056	EPA 8082A	9-21-20	9-21-20	
Aroclor 1221	ND	0.056	EPA 8082A	9-21-20	9-21-20	
Aroclor 1232	ND	0.056	EPA 8082A	9-21-20	9-21-20	
Aroclor 1242	0.24	0.056	EPA 8082A	9-21-20	9-21-20	
Aroclor 1248	ND	0.056	EPA 8082A	9-21-20	9-21-20	
Aroclor 1254	1.8	0.056	EPA 8082A	9-21-20	9-21-20	
Aroclor 1260	ND	0.056	EPA 8082A	9-21-20	9-21-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	96	46-125				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0921S1					
Aroclor 1016	ND	0.050	EPA 8082A	9-21-20	9-21-20	
Aroclor 1221	ND	0.050	EPA 8082A	9-21-20	9-21-20	
Aroclor 1232	ND	0.050	EPA 8082A	9-21-20	9-21-20	
Aroclor 1242	ND	0.050	EPA 8082A	9-21-20	9-21-20	
Aroclor 1248	ND	0.050	EPA 8082A	9-21-20	9-21-20	
Aroclor 1254	ND	0.050	EPA 8082A	9-21-20	9-21-20	
Aroclor 1260	ND	0.050	EPA 8082A	9-21-20	9-21-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	97		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0921S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	0.438	0.463	0.500	0.500	N/A	88	93	50-134	6	18	
<i>Surrogate:</i>											
DCB						105	108	46-125			



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**ORGANOCHLORINE
 PESTICIDES EPA 8081B**

Matrix: Soil
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1					
Laboratory ID:	09-190-01					
alpha-BHC	ND	5.5	EPA 8081B	9-21-20	9-23-20	
gamma-BHC	ND	5.5	EPA 8081B	9-21-20	9-23-20	
beta-BHC	ND	5.5	EPA 8081B	9-21-20	9-23-20	
delta-BHC	ND	5.5	EPA 8081B	9-21-20	9-23-20	
Heptachlor	ND	5.5	EPA 8081B	9-21-20	9-23-20	
Aldrin	ND	5.5	EPA 8081B	9-21-20	9-23-20	
Heptachlor Epoxide	ND	5.5	EPA 8081B	9-21-20	9-23-20	
gamma-Chlordane	42	11	EPA 8081B	9-21-20	9-23-20	P
alpha-Chlordane	ND	11	EPA 8081B	9-21-20	9-23-20	
4,4'-DDE	75	11	EPA 8081B	9-21-20	9-23-20	P
Endosulfan I	29	5.5	EPA 8081B	9-21-20	9-23-20	P
Dieldrin	49	11	EPA 8081B	9-21-20	9-23-20	P
Endrin	ND	11	EPA 8081B	9-21-20	9-23-20	
4,4'-DDD	ND	11	EPA 8081B	9-21-20	9-23-20	
Endosulfan II	ND	11	EPA 8081B	9-21-20	9-23-20	
4,4'-DDT	ND	11	EPA 8081B	9-21-20	9-23-20	
Endrin Aldehyde	120	11	EPA 8081B	9-21-20	9-23-20	P
Methoxychlor	48	11	EPA 8081B	9-21-20	9-23-20	P
Endosulfan Sulfate	ND	11	EPA 8081B	9-21-20	9-23-20	
Endrin Ketone	ND	11	EPA 8081B	9-21-20	9-23-20	
Toxaphene	ND	55	EPA 8081B	9-21-20	9-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	76	33-97				
DCB	91	36-115				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**ORGANOCHLORINE
 PESTICIDES EPA 8081B**

Matrix: Soil
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-2					
Laboratory ID:	09-190-02					
alpha-BHC	ND	5.6	EPA 8081B	9-21-20	9-23-20	
gamma-BHC	ND	5.6	EPA 8081B	9-21-20	9-23-20	
beta-BHC	ND	5.6	EPA 8081B	9-21-20	9-23-20	
delta-BHC	ND	5.6	EPA 8081B	9-21-20	9-23-20	
Heptachlor	ND	5.6	EPA 8081B	9-21-20	9-23-20	
Aldrin	ND	5.6	EPA 8081B	9-21-20	9-23-20	
Heptachlor Epoxide	ND	5.6	EPA 8081B	9-21-20	9-23-20	
gamma-Chlordane	16	11	EPA 8081B	9-21-20	9-23-20	P
alpha-Chlordane	ND	11	EPA 8081B	9-21-20	9-23-20	
4,4'-DDE	58	11	EPA 8081B	9-21-20	9-23-20	P
Endosulfan I	ND	5.6	EPA 8081B	9-21-20	9-23-20	
Dieldrin	22	11	EPA 8081B	9-21-20	9-23-20	P
Endrin	ND	11	EPA 8081B	9-21-20	9-23-20	
4,4'-DDD	ND	11	EPA 8081B	9-21-20	9-23-20	
Endosulfan II	ND	11	EPA 8081B	9-21-20	9-23-20	
4,4'-DDT	ND	11	EPA 8081B	9-21-20	9-23-20	
Endrin Aldehyde	ND	11	EPA 8081B	9-21-20	9-23-20	
Methoxychlor	29	11	EPA 8081B	9-21-20	9-23-20	P
Endosulfan Sulfate	ND	11	EPA 8081B	9-21-20	9-23-20	
Endrin Ketone	ND	11	EPA 8081B	9-21-20	9-23-20	
Toxaphene	ND	56	EPA 8081B	9-21-20	9-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	74	33-97				
DCB	64	36-115				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**ORGANOCHLORINE
 PESTICIDES EPA 8081B
 QUALITY CONTROL**

Matrix: Soil
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0921S2					
alpha-BHC	ND	5.0	EPA 8081B	9-21-20	9-22-20	
gamma-BHC	ND	5.0	EPA 8081B	9-21-20	9-22-20	
beta-BHC	ND	5.0	EPA 8081B	9-21-20	9-22-20	
delta-BHC	ND	5.0	EPA 8081B	9-21-20	9-22-20	
Heptachlor	ND	5.0	EPA 8081B	9-21-20	9-22-20	
Aldrin	ND	5.0	EPA 8081B	9-21-20	9-22-20	
Heptachlor Epoxide	ND	5.0	EPA 8081B	9-21-20	9-22-20	
gamma-Chlordane	ND	10	EPA 8081B	9-21-20	9-22-20	
alpha-Chlordane	ND	10	EPA 8081B	9-21-20	9-22-20	
4,4'-DDE	ND	10	EPA 8081B	9-21-20	9-22-20	
Endosulfan I	ND	5.0	EPA 8081B	9-21-20	9-22-20	
Dieldrin	ND	10	EPA 8081B	9-21-20	9-22-20	
Endrin	ND	10	EPA 8081B	9-21-20	9-22-20	
4,4'-DDD	ND	10	EPA 8081B	9-21-20	9-22-20	
Endosulfan II	ND	10	EPA 8081B	9-21-20	9-22-20	
4,4'-DDT	ND	10	EPA 8081B	9-21-20	9-22-20	
Endrin Aldehyde	ND	10	EPA 8081B	9-21-20	9-22-20	
Methoxychlor	ND	10	EPA 8081B	9-21-20	9-22-20	
Endosulfan Sulfate	ND	10	EPA 8081B	9-21-20	9-22-20	
Endrin Ketone	ND	10	EPA 8081B	9-21-20	9-22-20	
Toxaphene	ND	50	EPA 8081B	9-21-20	9-22-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	81	33-97				
DCB	83	36-115				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**ORGANOCHLORINE
 PESTICIDES EPA 8081B
 QUALITY CONTROL**

Matrix: Soil
 Units: ug/Kg (ppb)

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD	RPD	Flags
	MS	MSD	MS	MSD	Result	Recovery	Recovery	Limits	RPD	Limit	
MATRIX SPIKES											
Laboratory ID:	09-151-01										
	MS	MSD	MS	MSD		MS	MSD				
alpha-BHC	83.3	74.3	100	100	ND	83	74	36-123	11	21	
gamma-BHC	83.8	76.5	100	100	ND	84	76	38-121	9	21	
beta-BHC	83.2	75.4	100	100	ND	83	75	31-125	10	21	
delta-BHC	80.3	74.4	100	100	ND	80	74	37-118	8	23	
Heptachlor	89.1	81.1	100	100	ND	89	81	37-123	9	24	
Aldrin	85.1	76.7	100	100	ND	85	77	44-112	10	22	
Heptachlor Epoxide	84.7	79.5	100	100	ND	85	80	46-110	6	22	
gamma-Chlordane	75.6	70.8	100	100	ND	76	71	45-112	7	23	
alpha-Chlordane	79.5	70.9	100	100	ND	79	71	47-106	11	23	
4,4'-DDE	85.5	78.5	100	100	ND	85	78	34-139	9	22	
Endosulfan I	85.9	80.5	100	100	ND	86	80	46-115	6	25	
Dieldrin	85.2	75.1	100	100	ND	85	75	48-115	13	23	
Endrin	77.9	70.8	100	100	ND	78	71	44-120	10	28	
4,4'-DDD	81.1	74.6	100	100	ND	81	75	42-131	8	21	
Endosulfan II	84.6	76.9	100	100	ND	85	77	47-109	10	22	
4,4'-DDT	87.3	78.3	100	100	ND	87	78	29-135	11	32	
Endrin Aldehyde	76.9	72.7	100	100	ND	77	73	45-99	6	22	
Methoxychlor	92.2	77.7	100	100	ND	92	78	40-132	17	22	
Endosulfan Sulfate	82.4	74.9	100	100	ND	82	75	47-105	10	21	
Endrin Ketone	90.0	80.9	100	100	ND	90	81	46-115	11	22	
Surrogate:											
TCMX						80	70	33-97			
DCB						93	86	36-115			



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1					
Laboratory ID:	09-190-01					
Aluminum	6900	270	EPA 6010D	9-22-20	9-22-20	
Antimony	ND	5.5	EPA 6010D	9-21-20	9-21-20	
Arsenic	ND	11	EPA 6010D	9-22-20	9-22-20	
Barium	94	2.7	EPA 6010D	9-29-20	9-29-20	
Beryllium	ND	0.55	EPA 6010D	9-22-20	9-22-20	
Cadmium	1.5	0.55	EPA 6010D	9-29-20	9-29-20	
Calcium	1500	55	EPA 6010D	9-29-20	9-29-20	
Chromium	300	2.7	EPA 6010D	9-22-20	9-22-20	
Cobalt	11	0.55	EPA 6010D	9-21-20	9-21-20	
Copper	100	1.1	EPA 6010D	9-29-20	9-29-20	
Iron	24000	2700	EPA 6010D	9-22-20	9-22-20	
Lead	1400	5.5	EPA 6010D	9-22-20	9-22-20	
Magnesium	1100	55	EPA 6010D	9-29-20	9-29-20	
Manganese	370	2.7	EPA 6010D	9-22-20	9-22-20	
Mercury	ND	0.27	EPA 7471B	9-22-20	9-22-20	
Nickel	25	2.7	EPA 6010D	9-22-20	9-22-20	
Potassium	580	82	EPA 6010D	9-22-20	9-22-20	
Selenium	ND	11	EPA 6010D	9-22-20	9-22-20	
Silver	ND	1.1	EPA 6010D	9-22-20	9-22-20	
Sodium	ND	82	EPA 6010D	9-22-20	9-22-20	
Thallium	ND	2.7	EPA 6010D	9-22-20	9-22-20	
Vanadium	31	0.55	EPA 6010D	9-22-20	9-22-20	
Zinc	110	2.7	EPA 6010D	9-29-20	9-29-20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-2					
Laboratory ID:	09-190-02					
Aluminum	5700	280	EPA 6010D	9-22-20	9-22-20	
Antimony	ND	5.6	EPA 6010D	9-21-20	9-21-20	
Arsenic	ND	11	EPA 6010D	9-22-20	9-22-20	
Barium	280	2.8	EPA 6010D	9-29-20	9-29-20	
Beryllium	ND	0.56	EPA 6010D	9-22-20	9-22-20	
Cadmium	1.0	0.56	EPA 6010D	9-29-20	9-29-20	
Calcium	3400	280	EPA 6010D	9-29-20	9-29-20	
Chromium	310	2.8	EPA 6010D	9-22-20	9-22-20	
Cobalt	22	0.56	EPA 6010D	9-21-20	9-21-20	
Copper	85	1.1	EPA 6010D	9-29-20	9-29-20	
Iron	29000	2800	EPA 6010D	9-22-20	9-22-20	
Lead	2200	5.6	EPA 6010D	9-22-20	9-22-20	
Magnesium	2600	56	EPA 6010D	9-29-20	9-29-20	
Manganese	370	2.8	EPA 6010D	9-22-20	9-22-20	
Mercury	0.82	0.28	EPA 7471B	9-22-20	9-22-20	
Nickel	28	2.8	EPA 6010D	9-22-20	9-22-20	
Potassium	4300	420	EPA 6010D	9-22-20	9-22-20	
Selenium	ND	11	EPA 6010D	9-22-20	9-22-20	
Silver	ND	1.1	EPA 6010D	9-22-20	9-22-20	
Sodium	280	83	EPA 6010D	9-22-20	9-22-20	
Thallium	ND	2.8	EPA 6010D	9-22-20	9-22-20	
Vanadium	47	0.56	EPA 6010D	9-22-20	9-22-20	
Zinc	390	2.8	EPA 6010D	9-29-20	9-29-20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**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:	MB0921SH2					
Antimony	ND	5.0	EPA 6010D	9-21-20	9-21-20	
Cobalt	ND	0.50	EPA 6010D	9-21-20	9-21-20	
Laboratory ID:	MB0922SH1					
Aluminum	ND	50	EPA 6010D	9-22-20	9-22-20	
Arsenic	ND	10	EPA 6010D	9-22-20	9-22-20	
Beryllium	ND	0.50	EPA 6010D	9-22-20	9-22-20	
Chromium	ND	0.50	EPA 6010D	9-22-20	9-22-20	
Iron	ND	50	EPA 6010D	9-22-20	9-22-20	
Lead	ND	5.0	EPA 6010D	9-22-20	9-22-20	
Manganese	ND	0.50	EPA 6010D	9-22-20	9-22-20	
Nickel	ND	2.5	EPA 6010D	9-22-20	9-22-20	
Potassium	ND	75	EPA 6010D	9-22-20	9-22-20	
Selenium	ND	10	EPA 6010D	9-22-20	9-22-20	
Silver	ND	1.0	EPA 6010D	9-22-20	9-22-20	
Sodium	ND	75	EPA 6010D	9-22-20	9-22-20	
Thallium	ND	2.5	EPA 6010D	9-22-20	9-22-20	
Vanadium	ND	0.50	EPA 6010D	9-22-20	9-22-20	
Laboratory ID:	MB0922S1					
Mercury	ND	0.25	EPA 7471B	9-22-20	9-22-20	
Laboratory ID:	MB0929SM1					
Barium	ND	2.5	EPA 6010D	9-29-20	9-29-20	
Cadmium	ND	0.50	EPA 6010D	9-29-20	9-29-20	
Calcium	ND	50	EPA 6010D	9-29-20	9-29-20	
Copper	ND	1.0	EPA 6010D	9-29-20	9-29-20	
Magnesium	ND	50	EPA 6010D	9-29-20	9-29-20	
Zinc	ND	2.5	EPA 6010D	9-29-20	9-29-20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-190-01							
	ORIG	DUP						
Antimony	ND	ND	NA	NA	NA	NA	20	
Cobalt	10.0	10.8	NA	NA	NA	8	20	
Laboratory ID: 09-190-01								
	ORIG	DUP						
Aluminum	6260	6040	NA	NA	NA	3	20	
Arsenic	ND	ND	NA	NA	NA	NA	20	
Beryllium	ND	ND	NA	NA	NA	NA	20	
Chromium	273	263	NA	NA	NA	4	20	
Iron	21700	22300	NA	NA	NA	3	20	
Lead	1310	1470	NA	NA	NA	11	20	
Manganese	335	375	NA	NA	NA	11	20	
Nickel	22.4	20.9	NA	NA	NA	7	20	
Potassium	527	488	NA	NA	NA	8	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	
Sodium	ND	ND	NA	NA	NA	NA	20	
Thallium	ND	ND	NA	NA	NA	NA	20	
Vanadium	27.9	28.7	NA	NA	NA	3	20	
Laboratory ID: 09-190-01								
Mercury	ND	ND	NA	NA	NA	NA	20	
Laboratory ID: 09-190-01								
	ORIG	DUP						
Barium	85.6	89.0	NA	NA	NA	4	20	
Cadmium	1.33	1.28	NA	NA	NA	4	20	
Calcium	1340	1350	NA	NA	NA	1	20	
Copper	91.0	90.6	NA	NA	NA	0	20	
Magnesium	959	928	NA	NA	NA	3	20	
Zinc	104	109	NA	NA	NA	5	20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	09-190-01										
	MS	MSD	MS	MSD		MS	MSD				
Antimony	85.1	82.5	100	100	ND	85	83	75-125	3	20	
Cobalt	56.3	56.0	50.0	50.0	10.0	93	92	75-125	0	20	
Laboratory ID:	09-190-01										
	MS	MSD	MS	MSD		MS	MSD				
Aluminum	6890	7730	1000	1000	6260	64	147	75-125	11	20	A
Arsenic	91.4	92.8	100	100	ND	91	93	75-125	2	20	
Beryllium	47.8	49.2	50.0	50.0	ND	96	98	75-125	3	20	
Chromium	287	385	100	100	273	14	112	75-125	29	20	V,W
Iron	29200	30400	1000	1000	21700	753	872	75-125	4	20	A
Lead	1050	1730	250	250	1310	-101	168	75-125	48	20	A,W
Manganese	365	482	25.0	25.0	335	120	589	75-125	28	20	V,W
Nickel	114	118	100	100	22.4	91	96	75-125	4	20	
Potassium	1400	1520	1000	1000	527	88	99	75-125	8	20	
Selenium	85.3	85.3	100	100	ND	85	85	75-125	0	20	
Silver	22.1	23.3	25.0	25.0	ND	88	93	75-125	5	20	
Sodium	1080	1130	1000	1000	ND	108	113	75-125	5	20	
Thallium	44.2	44.8	50.0	50.0	ND	88	90	75-125	1	20	
Vanadium	84.3	77.9	50.0	50.0	27.9	113	100	75-125	8	20	
Laboratory ID:	09-190-01										
Mercury	0.702	0.790	0.500	0.500	0.207	99	117	80-120	12	20	
Laboratory ID:	09-190-01										
	MS	MSD	MS	MSD		MS	MSD				
Barium	204	163	100	100	85.6	119	78	75-125	23	20	W
Cadmium	45.8	44.9	50.0	50.0	1.33	89	87	75-125	2	20	
Calcium	2140	2030	1000	1000	1340	80	69	75-125	5	20	V
Copper	137	148	50.0	50.0	91.0	92	114	75-125	8	20	
Magnesium	1810	1820	1000	1000	959	85	86	75-125	0	20	
Zinc	192	212	100	100	104	88	108	75-125	10	20	



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1					
Laboratory ID:	09-190-01					
Gasoline	ND	6.3	NWTPH-Gx	9-25-20	9-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	58-129				
Client ID:	Sample-2					
Laboratory ID:	09-190-02					
Gasoline	ND	6.7	NWTPH-Gx	9-25-20	9-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	58-129				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**GASOLINE RANGE ORGANICS
 NWTPH-Gx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0925S1					
Gasoline	ND	5.0	NWTPH-Gx	9-25-20	9-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-190-01							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				98	99	58-129		



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**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:	Sample-1					
Laboratory ID:	09-190-01					
Diesel Range Organics	81	27	NWTPH-Dx	9-21-20	9-30-20	N
Lube Oil Range Organics	610	55	NWTPH-Dx	9-21-20	9-30-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				
Client ID:	Sample-2					
Laboratory ID:	09-190-02					
Diesel Range Organics	320	140	NWTPH-Dx	9-21-20	9-25-20	N
Lube Oil Range Organics	1300	280	NWTPH-Dx	9-21-20	9-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				



Date of Report: October 1, 2020
 Samples Submitted: September 18, 2020
 Laboratory Reference: 2009-190
 Project: 923-1000-006.5000

**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:	MB0921S1					
Diesel Range Organics	ND	25	NWTPH-Dx	9-21-20	9-21-20	
Lube Oil Range Organics	ND	50	NWTPH-Dx	9-21-20	9-21-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>101</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0921S1							
	ORIG	DUP						
Diesel Fuel #2	90.3	88.6	NA	NA	NA	NA	2	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				86	85	50-150		



Date of Report: October 1, 2020
Samples Submitted: September 18, 2020
Laboratory Reference: 2009-190
Project: 923-1000-006.5000

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
Sample-1	09-190-01	9	9-21-20
Sample-2	09-190-02	10	9-21-20





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 methods 8260 & 8270, 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





Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

Professional
Analytical
Services

Sep 25 2020
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
SAMPLE-1	Water	20-A015171	CONV
SAMPLE-2	Water	20-A015172	CONV

Your samples were received on Friday, September 18, 2020. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

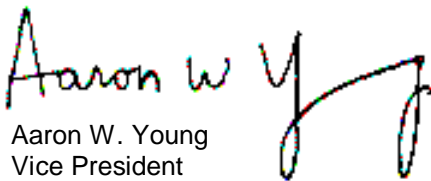
The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,


Aaron W. Young
Vice President

Project #: 9231>00006/5000
PO Number: 09-190

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



Professional
Analytical
Services

ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 9231>00006/5000
PO Number: 09-190
All results reported on an as received basis.

Date Received: 09/18/20
Date Reported: 9/25/20

AMTEST Identification Number 20-A015171
Client Identification SAMPLE-1
Sampling Date 09/18/20, 09:30

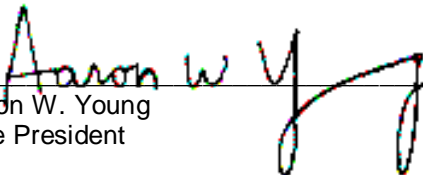
Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Cyanide	0.97	ug/g		0.05	EPA 335.4	AW	09/24/20

AMTEST Identification Number 20-A015172
Client Identification SAMPLE-2
Sampling Date 09/18/20, 09:45

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Cyanide	0.62	ug/g		0.05	EPA 335.4	AW	09/24/20


Aaron W. Young
Vice President

QC Summary for sample numbers: 20-A015171 to 20-A015172

MATRIX SPIKES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
20-A015172	Total Cyanide	ug/g	0.62	2.0	1.1	125.46 %
20-A015172	Total Cyanide	ug/g	0.62	2.0	1.1	125.46 %

MATRIX SPIKE DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE + SPK	MSD VALUE	RPD
Spike	Total Cyanide	ug/g	2.0	2.0	0.00

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Total Cyanide	ug/g	0.10	0.098	98.0 %

BLANKS

ANALYTE	UNITS	RESULT
Total Cyanide	ug/g	< 0.05



14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Laboratory: AmTest Laboratories

Attention: Aaron Young

13600 NE 126th PI Kirkland, WA 98034

Phone Number: (425) 885-1664

Turnaround Request

1 Day 2 Day 3 Day

Standard

Other: _____

Laboratory Reference #: 09-190

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 9231>00006/5000

Project Name: _____

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analyses
Sample - 1	15171	9/18/20	9:30	S	1	Total Cyanide
Sample - 2	72	9/18/20	9:45	S	1	Total Cyanide
Relinquished by:		Company	Date	Time	Comments/Special Instructions	
		Onsite Env.	9-21-20	3:10 p		
Received by:		AMTEST T=135	9/21/20	3:15 PM		
Relinquished by:						
Received by:						
Relinquished by:						
Received by:						

Chain of Custody

Laboratory Number: **09-190**

Company: Golder
 Project Number: 9231200006/5000
 Project Name: Landsburg
 Project Manager: Gary Zimmerman
 Sampled by: Joseph Xi

Turnaround Request (in working days)

(Check One)

Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days)
 _____ (other)

Number of Containers

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	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	Total TAL Metals	Total Cyanide	% Moisture	
						1	Sample - 1	09/18/2020	0930	Soil	6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	Sample - 2	09/18/2020	0945	Soil	6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<u>Joseph Xi</u>	<u>Golder</u>	<u>9/18/2020</u>	<u>1545</u>	Analyze in accordance w/ Master services Agreement between Golder and onsite. (X) Added 9/24/2020 DB (STA)
Received	<u>Michael B. [Signature]</u>	<u>OSE</u>	<u>9/18/20</u>	<u>1545</u>	
Relinquished					
Received					
Relinquished					
Received					Data Package: Standard <input checked="" type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>
Reviewed/Date		Reviewed/Date			Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input checked="" type="checkbox"/>



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

October 19, 2020

Gary Zimmerman
Golder Associates Inc.
18300 NE Union Hill Road
Suite 200
Redmond, WA 98052-3333

Re: Analytical Data for Project 9231000006.5000
Laboratory Reference No. 2010-077

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on October 7, 2020.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 19, 2020
Samples Submitted: October 7, 2020
Laboratory Reference: 2010-077
Project: 9231000006.5000

Case Narrative

Samples were collected on October 7, 2020 and received by the laboratory on October 7, 2020. 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.

Total Metals EPA 6010D/7471B Analysis

Due to the high concentration of Iron and Manganese in the QC sample, the amount spiked was insufficient for meaningful MS/MSD recovery data. The Spike Blank recovery was 96 % for Iron and 101% for Manganese.

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: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**HYDROCARBON IDENTIFICATION
 NWTPH-HCID**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-A					
Laboratory ID:	10-077-01					
Gasoline Range Organics	ND	23	NWTPH-HCID	10-8-20	10-9-20	
Diesel Range Organics	ND	58	NWTPH-HCID	10-8-20	10-9-20	
Lube Oil	Detected	120	NWTPH-HCID	10-8-20	10-9-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	94	50-150				

Client ID:	Sample-1-B					
Laboratory ID:	10-077-02					
Gasoline Range Organics	ND	23	NWTPH-HCID	10-8-20	10-9-20	
Diesel Range Organics	ND	58	NWTPH-HCID	10-8-20	10-9-20	
Lube Oil	Detected	120	NWTPH-HCID	10-8-20	10-9-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	80	50-150				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**HYDROCARBON IDENTIFICATION
 NWTPH-HCID
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1008S3					
Gasoline Range Organics	ND	20	NWTPH-HCID	10-8-20	10-9-20	
Diesel Range Organics	ND	50	NWTPH-HCID	10-8-20	10-9-20	
Lube Oil Range Organics	ND	100	NWTPH-HCID	10-8-20	10-9-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

VOLATILE ORGANICS EPA 8260D
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-A					
Laboratory ID:	10-077-01					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Chloromethane	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Bromomethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Chloroethane	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Acetone	0.022	0.012	EPA 8260D	10-8-20	10-8-20	
Iodomethane	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
Carbon Disulfide	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Methylene Chloride	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Vinyl Acetate	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
2-Butanone	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
Bromochloromethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Chloroform	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Benzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Trichloroethene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Dibromomethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
2-Chloroethyl Vinyl Ether	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Methyl Isobutyl Ketone	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
Toluene	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

VOLATILE ORGANICS EPA 8260D
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-A					
Laboratory ID:	10-077-01					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
2-Hexanone	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Chlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Ethylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
m,p-Xylene	ND	0.0024	EPA 8260D	10-8-20	10-8-20	
o-Xylene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Styrene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Bromoform	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
Isopropylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Bromobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
n-Propylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
2-Chlorotoluene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
4-Chlorotoluene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
tert-Butylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
sec-Butylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
p-Isopropyltoluene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
n-Butylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2-Dibromo-3-chloropropane	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Hexachlorobutadiene	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
Naphthalene	ND	0.0061	EPA 8260D	10-8-20	10-8-20	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>71-130</i>				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

VOLATILE ORGANICS EPA 8260D
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-B					
Laboratory ID:	10-077-02					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Chloromethane	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Bromomethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Chloroethane	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Acetone	0.036	0.012	EPA 8260D	10-8-20	10-8-20	
Iodomethane	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
Carbon Disulfide	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Methylene Chloride	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Vinyl Acetate	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
2-Butanone	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
Bromochloromethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Chloroform	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Benzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Trichloroethene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Dibromomethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Methyl Isobutyl Ketone	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
Toluene	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

VOLATILE ORGANICS EPA 8260D
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-B					
Laboratory ID:	10-077-02					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
2-Hexanone	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Chlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Ethylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
m,p-Xylene	ND	0.0025	EPA 8260D	10-8-20	10-8-20	
o-Xylene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Styrene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Bromoform	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
Isopropylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Bromobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
n-Propylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
2-Chlorotoluene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
4-Chlorotoluene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
tert-Butylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
sec-Butylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
p-Isopropyltoluene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
n-Butylbenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
Hexachlorobutadiene	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
Naphthalene	ND	0.0062	EPA 8260D	10-8-20	10-8-20	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	10-8-20	10-8-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>71-130</i>				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1008S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Chloromethane	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Bromomethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Chloroethane	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Acetone	ND	0.010	EPA 8260D	10-8-20	10-8-20	
Iodomethane	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Methylene Chloride	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
2-Butanone	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
Bromochloromethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Chloroform	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Benzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Trichloroethene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Dibromomethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
Toluene	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1008S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
2-Hexanone	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Chlorobenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Ethylbenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
m,p-Xylene	ND	0.0020	EPA 8260D	10-8-20	10-8-20	
o-Xylene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Styrene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Bromoform	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Bromobenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
Naphthalene	ND	0.0050	EPA 8260D	10-8-20	10-8-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	10-8-20	10-8-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>71-130</i>				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB1008S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0547	0.0572	0.0500	0.0500	109	114	55-126	4	17	
Benzene	0.0546	0.0550	0.0500	0.0500	109	110	65-121	1	16	
Trichloroethene	0.0567	0.0531	0.0500	0.0500	113	106	74-126	7	16	
Toluene	0.0572	0.0522	0.0500	0.0500	114	104	71-121	9	16	
Chlorobenzene	0.0519	0.0476	0.0500	0.0500	104	95	72-123	9	16	
<i>Surrogate:</i>										
Dibromofluoromethane					90	91	74-131			
Toluene-d8					102	101	78-128			
4-Bromofluorobenzene					106	101	71-130			



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

SEMIVOLATILE ORGANICS EPA 8270E/SIM
 page 1 of 2

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-A					
Laboratory ID:	10-077-01					
n-Nitrosodimethylamine	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Pyridine	ND	0.38	EPA 8270E	10-9-20	10-9-20	
Phenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Aniline	ND	0.19	EPA 8270E	10-9-20	10-9-20	
bis(2-Chloroethyl)ether	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2-Chlorophenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
1,3-Dichlorobenzene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
1,4-Dichlorobenzene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Benzyl alcohol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
1,2-Dichlorobenzene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2-Methylphenol (o-Cresol)	ND	0.038	EPA 8270E	10-9-20	10-9-20	
bis(2-Chloroisopropyl)ether	ND	0.038	EPA 8270E	10-9-20	10-9-20	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.038	EPA 8270E	10-9-20	10-9-20	
n-Nitroso-di-n-propylamine	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Hexachloroethane	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Nitrobenzene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Isophorone	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2-Nitrophenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2,4-Dimethylphenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
bis(2-Chloroethoxy)methane	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2,4-Dichlorophenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
1,2,4-Trichlorobenzene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Naphthalene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
4-Chloroaniline	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Hexachlorobutadiene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
4-Chloro-3-methylphenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2-Methylnaphthalene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
1-Methylnaphthalene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Hexachlorocyclopentadiene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2,4,6-Trichlorophenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2,3-Dichloroaniline	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2,4,5-Trichlorophenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2-Chloronaphthalene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2-Nitroaniline	ND	0.038	EPA 8270E	10-9-20	10-9-20	
1,4-Dinitrobenzene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Dimethylphthalate	ND	0.038	EPA 8270E	10-9-20	10-9-20	
1,3-Dinitrobenzene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2,6-Dinitrotoluene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
1,2-Dinitrobenzene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Acenaphthylene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
3-Nitroaniline	ND	0.038	EPA 8270E	10-9-20	10-9-20	



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

SEMIVOLATILE ORGANICS EPA 8270E/SIM
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-A					
Laboratory ID:	10-077-01					
2,4-Dinitrophenol	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Acenaphthene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
4-Nitrophenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2,4-Dinitrotoluene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Dibenzofuran	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2,3,5,6-Tetrachlorophenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
2,3,4,6-Tetrachlorophenol	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Diethylphthalate	ND	0.19	EPA 8270E	10-9-20	10-9-20	
4-Chlorophenyl-phenylether	ND	0.038	EPA 8270E	10-9-20	10-9-20	
4-Nitroaniline	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Fluorene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
4,6-Dinitro-2-methylphenol	ND	0.19	EPA 8270E	10-9-20	10-9-20	
n-Nitrosodiphenylamine	ND	0.038	EPA 8270E	10-9-20	10-9-20	
1,2-Diphenylhydrazine	ND	0.038	EPA 8270E	10-9-20	10-9-20	
4-Bromophenyl-phenylether	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Hexachlorobenzene	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Pentachlorophenol	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Phenanthrene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Anthracene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Carbazole	ND	0.038	EPA 8270E	10-9-20	10-9-20	
Di-n-butylphthalate	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Fluoranthene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Pyrene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Butylbenzylphthalate	ND	0.19	EPA 8270E	10-9-20	10-9-20	
bis-2-Ethylhexyladipate	ND	0.19	EPA 8270E	10-9-20	10-9-20	
3,3'-Dichlorobenzidine	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Benzo[a]anthracene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Chrysene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
bis(2-Ethylhexyl)phthalate	0.81	0.19	EPA 8270E	10-9-20	10-9-20	
Di-n-octylphthalate	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Benzo[b]fluoranthene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Benzo(j,k)fluoranthene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Benzo[a]pyrene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Indeno[1,2,3-cd]pyrene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Dibenz[a,h]anthracene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
Benzo[g,h,i]perylene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-9-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	53	22 - 109				
Phenol-d6	61	36 - 110				
Nitrobenzene-d5	54	31 - 109				
2-Fluorobiphenyl	66	45 - 107				
2,4,6-Tribromophenol	94	43 - 124				
Terphenyl-d14	88	52 - 118				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

SEMIVOLATILE ORGANICS EPA 8270E/SIM
 page 1 of 2

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-B					
Laboratory ID:	10-077-02					
n-Nitrosodimethylamine	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Pyridine	ND	0.39	EPA 8270E	10-9-20	10-9-20	
Phenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Aniline	ND	0.19	EPA 8270E	10-9-20	10-9-20	
bis(2-Chloroethyl)ether	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2-Chlorophenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
1,3-Dichlorobenzene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
1,4-Dichlorobenzene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Benzyl alcohol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
1,2-Dichlorobenzene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2-Methylphenol (o-Cresol)	ND	0.039	EPA 8270E	10-9-20	10-9-20	
bis(2-Chloroisopropyl)ether	ND	0.039	EPA 8270E	10-9-20	10-9-20	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.039	EPA 8270E	10-9-20	10-9-20	
n-Nitroso-di-n-propylamine	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Hexachloroethane	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Nitrobenzene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Isophorone	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2-Nitrophenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2,4-Dimethylphenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
bis(2-Chloroethoxy)methane	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2,4-Dichlorophenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
1,2,4-Trichlorobenzene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Naphthalene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
4-Chloroaniline	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Hexachlorobutadiene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
4-Chloro-3-methylphenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2-Methylnaphthalene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
1-Methylnaphthalene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Hexachlorocyclopentadiene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2,4,6-Trichlorophenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2,3-Dichloroaniline	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2,4,5-Trichlorophenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2-Chloronaphthalene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2-Nitroaniline	ND	0.039	EPA 8270E	10-9-20	10-9-20	
1,4-Dinitrobenzene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Dimethylphthalate	ND	0.039	EPA 8270E	10-9-20	10-9-20	
1,3-Dinitrobenzene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2,6-Dinitrotoluene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
1,2-Dinitrobenzene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Acenaphthylene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
3-Nitroaniline	ND	0.039	EPA 8270E	10-9-20	10-9-20	



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

SEMIVOLATILE ORGANICS EPA 8270E/SIM
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-B					
Laboratory ID:	10-077-02					
2,4-Dinitrophenol	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Acenaphthene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
4-Nitrophenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2,4-Dinitrotoluene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Dibenzofuran	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2,3,5,6-Tetrachlorophenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
2,3,4,6-Tetrachlorophenol	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Diethylphthalate	ND	0.19	EPA 8270E	10-9-20	10-9-20	
4-Chlorophenyl-phenylether	ND	0.039	EPA 8270E	10-9-20	10-9-20	
4-Nitroaniline	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Fluorene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
4,6-Dinitro-2-methylphenol	ND	0.19	EPA 8270E	10-9-20	10-9-20	
n-Nitrosodiphenylamine	ND	0.039	EPA 8270E	10-9-20	10-9-20	
1,2-Diphenylhydrazine	ND	0.039	EPA 8270E	10-9-20	10-9-20	
4-Bromophenyl-phenylether	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Hexachlorobenzene	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Pentachlorophenol	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Phenanthrene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Anthracene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Carbazole	ND	0.039	EPA 8270E	10-9-20	10-9-20	
Di-n-butylphthalate	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Fluoranthene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Pyrene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Butylbenzylphthalate	ND	0.19	EPA 8270E	10-9-20	10-9-20	
bis-2-Ethylhexyladipate	ND	0.19	EPA 8270E	10-9-20	10-9-20	
3,3'-Dichlorobenzidine	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Benzo[a]anthracene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Chrysene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
bis(2-Ethylhexyl)phthalate	0.74	0.19	EPA 8270E	10-9-20	10-9-20	
Di-n-octylphthalate	ND	0.19	EPA 8270E	10-9-20	10-9-20	
Benzo[b]fluoranthene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Benzo(j,k)fluoranthene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Benzo[a]pyrene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Indeno[1,2,3-cd]pyrene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Dibenz[a,h]anthracene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
Benzo[g,h,i]perylene	ND	0.0077	EPA 8270E/SIM	10-9-20	10-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>49</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>56</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>47</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>63</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>92</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>79</i>	<i>52 - 118</i>				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

page 1 of 2

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1009S1					
n-Nitrosodimethylamine	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Pyridine	ND	0.33	EPA 8270E	10-9-20	10-9-20	
Phenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Aniline	ND	0.17	EPA 8270E	10-9-20	10-9-20	
bis(2-Chloroethyl)ether	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2-Chlorophenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
1,3-Dichlorobenzene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
1,4-Dichlorobenzene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Benzyl alcohol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
1,2-Dichlorobenzene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2-Methylphenol (o-Cresol)	ND	0.033	EPA 8270E	10-9-20	10-9-20	
bis(2-Chloroisopropyl)ether	ND	0.033	EPA 8270E	10-9-20	10-9-20	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.033	EPA 8270E	10-9-20	10-9-20	
n-Nitroso-di-n-propylamine	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Hexachloroethane	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Nitrobenzene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Isophorone	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2-Nitrophenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2,4-Dimethylphenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
bis(2-Chloroethoxy)methane	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2,4-Dichlorophenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
1,2,4-Trichlorobenzene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Naphthalene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
4-Chloroaniline	ND	0.17	EPA 8270E	10-9-20	10-9-20	
Hexachlorobutadiene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
4-Chloro-3-methylphenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Hexachlorocyclopentadiene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2,4,6-Trichlorophenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2,3-Dichloroaniline	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2,4,5-Trichlorophenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2-Chloronaphthalene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2-Nitroaniline	ND	0.033	EPA 8270E	10-9-20	10-9-20	
1,4-Dinitrobenzene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Dimethylphthalate	ND	0.033	EPA 8270E	10-9-20	10-9-20	
1,3-Dinitrobenzene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2,6-Dinitrotoluene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
1,2-Dinitrobenzene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
3-Nitroaniline	ND	0.033	EPA 8270E	10-9-20	10-9-20	



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1009S1					
2,4-Dinitrophenol	ND	0.17	EPA 8270E	10-9-20	10-9-20	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
4-Nitrophenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2,4-Dinitrotoluene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Dibenzofuran	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2,3,5,6-Tetrachlorophenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
2,3,4,6-Tetrachlorophenol	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Diethylphthalate	ND	0.17	EPA 8270E	10-9-20	10-9-20	
4-Chlorophenyl-phenylether	ND	0.033	EPA 8270E	10-9-20	10-9-20	
4-Nitroaniline	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Fluorene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
4,6-Dinitro-2-methylphenol	ND	0.17	EPA 8270E	10-9-20	10-9-20	
n-Nitrosodiphenylamine	ND	0.033	EPA 8270E	10-9-20	10-9-20	
1,2-Diphenylhydrazine	ND	0.033	EPA 8270E	10-9-20	10-9-20	
4-Bromophenyl-phenylether	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Hexachlorobenzene	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Pentachlorophenol	ND	0.17	EPA 8270E	10-9-20	10-9-20	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Anthracene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Carbazole	ND	0.033	EPA 8270E	10-9-20	10-9-20	
Di-n-butylphthalate	ND	0.17	EPA 8270E	10-9-20	10-9-20	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Pyrene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Butylbenzylphthalate	ND	0.17	EPA 8270E	10-9-20	10-9-20	
bis-2-Ethylhexyladipate	ND	0.17	EPA 8270E	10-9-20	10-9-20	
3,3'-Dichlorobenzidine	ND	0.17	EPA 8270E	10-9-20	10-9-20	
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Chrysene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
bis(2-Ethylhexyl)phthalate	ND	0.17	EPA 8270E	10-9-20	10-9-20	
Di-n-octylphthalate	ND	0.17	EPA 8270E	10-9-20	10-9-20	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Indeno[1,2,3-cd]pyrene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	10-9-20	10-9-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	58	22 - 109				
Phenol-d6	68	36 - 110				
Nitrobenzene-d5	57	31 - 109				
2-Fluorobiphenyl	71	45 - 107				
2,4,6-Tribromophenol	101	43 - 124				
Terphenyl-d14	89	52 - 118				



Date of Report: October 19, 2020
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**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent		Recovery		RPD	RPD	Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits	RPD	Limit			
MATRIX SPIKES												
Laboratory ID:	10-068-03											
	MS	MSD	MS	MSD		MS	MSD					
Phenol	1.01	0.974	1.33	1.33	ND	76	73	30 - 108	4	37		
2-Chlorophenol	0.972	0.971	1.33	1.33	ND	73	73	30 - 113	0	39		
1,4-Dichlorobenzene	0.460	0.459	0.667	0.667	ND	69	69	24 - 116	0	35		
n-Nitroso-di-n-propylamine	0.470	0.451	0.667	0.667	ND	70	68	34 - 112	4	34		
1,2,4-Trichlorobenzene	0.498	0.479	0.667	0.667	ND	75	72	34 - 115	4	38		
4-Chloro-3-methylphenol	1.18	1.08	1.33	1.33	ND	89	81	41 - 117	9	26		
Acenaphthene	0.507	0.477	0.667	0.667	ND	76	72	41 - 111	6	21		
4-Nitrophenol	1.28	1.18	1.33	1.33	ND	96	89	30 - 127	8	32		
2,4-Dinitrotoluene	0.603	0.572	0.667	0.667	ND	90	86	32 - 114	5	30		
Pentachlorophenol	1.48	1.38	1.33	1.33	ND	111	104	36 - 147	7	37		
Pyrene	0.574	0.541	0.667	0.667	ND	86	81	33 - 127	6	33		
<i>Surrogate:</i>												
2-Fluorophenol						64	64	22 - 109				
Phenol-d6						67	66	36 - 110				
Nitrobenzene-d5						65	63	31 - 109				
2-Fluorobiphenyl						73	67	45 - 107				
2,4,6-Tribromophenol						93	88	43 - 124				
Terphenyl-d14						80	76	52 - 118				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-A					
Laboratory ID:	10-077-01					
Aroclor 1016	ND	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1221	ND	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1232	ND	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1242	ND	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1248	ND	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1254	0.47	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1260	ND	0.058	EPA 8082A	10-13-20	10-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	100	46-125				
Client ID:	Sample-1-B					
Laboratory ID:	10-077-02					
Aroclor 1016	ND	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1221	ND	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1232	ND	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1242	ND	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1248	ND	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1254	0.59	0.058	EPA 8082A	10-13-20	10-13-20	
Aroclor 1260	ND	0.058	EPA 8082A	10-13-20	10-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	120	46-125				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1013S1					
Aroclor 1016	ND	0.050	EPA 8082A	10-13-20	10-13-20	
Aroclor 1221	ND	0.050	EPA 8082A	10-13-20	10-13-20	
Aroclor 1232	ND	0.050	EPA 8082A	10-13-20	10-13-20	
Aroclor 1242	ND	0.050	EPA 8082A	10-13-20	10-13-20	
Aroclor 1248	ND	0.050	EPA 8082A	10-13-20	10-13-20	
Aroclor 1254	ND	0.050	EPA 8082A	10-13-20	10-13-20	
Aroclor 1260	ND	0.050	EPA 8082A	10-13-20	10-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	106		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB1013S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	0.589	0.544	0.500	0.500	N/A	118	109	50-134	8	18	
<i>Surrogate:</i>											
DCB						116	117	46-125			



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**ORGANOCHLORINE
 PESTICIDES EPA 8081B**

Matrix: Soil
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-A					
Laboratory ID:	10-077-01					
alpha-BHC	ND	5.8	EPA 8081B	10-13-20	10-15-20	
gamma-BHC	ND	5.8	EPA 8081B	10-13-20	10-15-20	
beta-BHC	ND	5.8	EPA 8081B	10-13-20	10-15-20	
delta-BHC	ND	5.8	EPA 8081B	10-13-20	10-15-20	
Heptachlor	ND	5.8	EPA 8081B	10-13-20	10-15-20	
Aldrin	ND	5.8	EPA 8081B	10-13-20	10-15-20	
Heptachlor Epoxide	ND	5.8	EPA 8081B	10-13-20	10-15-20	
gamma-Chlordane	ND	12	EPA 8081B	10-13-20	10-15-20	
alpha-Chlordane	ND	12	EPA 8081B	10-13-20	10-15-20	
4,4'-DDE	ND	12	EPA 8081B	10-13-20	10-15-20	
Endosulfan I	ND	5.8	EPA 8081B	10-13-20	10-15-20	
Dieldrin	ND	12	EPA 8081B	10-13-20	10-15-20	
Endrin	ND	12	EPA 8081B	10-13-20	10-15-20	
4,4'-DDD	ND	12	EPA 8081B	10-13-20	10-15-20	
Endosulfan II	ND	12	EPA 8081B	10-13-20	10-15-20	
4,4'-DDT	27	12	EPA 8081B	10-13-20	10-15-20	
Endrin Aldehyde	ND	12	EPA 8081B	10-13-20	10-15-20	
Methoxychlor	ND	12	EPA 8081B	10-13-20	10-15-20	
Endosulfan Sulfate	ND	12	EPA 8081B	10-13-20	10-15-20	
Endrin Ketone	ND	12	EPA 8081B	10-13-20	10-15-20	
Toxaphene	ND	58	EPA 8081B	10-13-20	10-15-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	64	33-97				
DCB	72	36-115				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**ORGANOCHLORINE
 PESTICIDES EPA 8081B**

Matrix: Soil
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-B					
Laboratory ID:	10-077-02					
alpha-BHC	ND	5.8	EPA 8081B	10-13-20	10-15-20	
gamma-BHC	ND	5.8	EPA 8081B	10-13-20	10-15-20	
beta-BHC	ND	5.8	EPA 8081B	10-13-20	10-15-20	
delta-BHC	ND	5.8	EPA 8081B	10-13-20	10-15-20	
Heptachlor	ND	5.8	EPA 8081B	10-13-20	10-15-20	
Aldrin	ND	5.8	EPA 8081B	10-13-20	10-15-20	
Heptachlor Epoxide	ND	5.8	EPA 8081B	10-13-20	10-15-20	
gamma-Chlordane	ND	12	EPA 8081B	10-13-20	10-15-20	
alpha-Chlordane	ND	12	EPA 8081B	10-13-20	10-15-20	
4,4'-DDE	14	12	EPA 8081B	10-13-20	10-15-20	
Endosulfan I	ND	5.8	EPA 8081B	10-13-20	10-15-20	
Dieldrin	ND	12	EPA 8081B	10-13-20	10-15-20	
Endrin	ND	12	EPA 8081B	10-13-20	10-15-20	
4,4'-DDD	ND	12	EPA 8081B	10-13-20	10-15-20	
Endosulfan II	ND	12	EPA 8081B	10-13-20	10-15-20	
4,4'-DDT	ND	12	EPA 8081B	10-13-20	10-15-20	
Endrin Aldehyde	ND	12	EPA 8081B	10-13-20	10-15-20	
Methoxychlor	ND	12	EPA 8081B	10-13-20	10-15-20	
Endosulfan Sulfate	ND	12	EPA 8081B	10-13-20	10-15-20	
Endrin Ketone	ND	12	EPA 8081B	10-13-20	10-15-20	
Toxaphene	ND	58	EPA 8081B	10-13-20	10-15-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	74	33-97				
DCB	83	36-115				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**ORGANOCHLORINE
 PESTICIDES EPA 8081B
 QUALITY CONTROL**

Matrix: Soil
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1013S2					
alpha-BHC	ND	5.0	EPA 8081B	10-13-20	10-14-20	
gamma-BHC	ND	5.0	EPA 8081B	10-13-20	10-14-20	
beta-BHC	ND	5.0	EPA 8081B	10-13-20	10-14-20	
delta-BHC	ND	5.0	EPA 8081B	10-13-20	10-14-20	
Heptachlor	ND	5.0	EPA 8081B	10-13-20	10-14-20	
Aldrin	ND	5.0	EPA 8081B	10-13-20	10-14-20	
Heptachlor Epoxide	ND	5.0	EPA 8081B	10-13-20	10-14-20	
gamma-Chlordane	ND	10	EPA 8081B	10-13-20	10-14-20	
alpha-Chlordane	ND	10	EPA 8081B	10-13-20	10-14-20	
4,4'-DDE	ND	10	EPA 8081B	10-13-20	10-14-20	
Endosulfan I	ND	5.0	EPA 8081B	10-13-20	10-14-20	
Dieldrin	ND	10	EPA 8081B	10-13-20	10-14-20	
Endrin	ND	10	EPA 8081B	10-13-20	10-14-20	
4,4'-DDD	ND	10	EPA 8081B	10-13-20	10-14-20	
Endosulfan II	ND	10	EPA 8081B	10-13-20	10-14-20	
4,4'-DDT	ND	10	EPA 8081B	10-13-20	10-14-20	
Endrin Aldehyde	ND	10	EPA 8081B	10-13-20	10-14-20	
Methoxychlor	ND	10	EPA 8081B	10-13-20	10-14-20	
Endosulfan Sulfate	ND	10	EPA 8081B	10-13-20	10-14-20	
Endrin Ketone	ND	10	EPA 8081B	10-13-20	10-14-20	
Toxaphene	ND	50	EPA 8081B	10-13-20	10-14-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	76	33-97				
DCB	88	36-115				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**ORGANOCHLORINE
 PESTICIDES EPA 8081B
 QUALITY CONTROL**

Matrix: Soil
 Units: ug/Kg (ppb)

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD	RPD	Flags
	MS	MSD	MS	MSD	Result	Recovery	Recovery	Limits	RPD	Limit	
MATRIX SPIKES											
Laboratory ID:	10-077-01										
	MS	MSD	MS	MSD		MS	MSD				
alpha-BHC	80.2	77.4	100	100	ND	80	77	36-123	4	21	
gamma-BHC	81.5	80.0	100	100	ND	82	80	38-121	2	21	
beta-BHC	77.6	76.5	100	100	ND	78	76	31-125	1	21	
delta-BHC	82.9	79.0	100	100	ND	83	79	37-118	5	23	
Heptachlor	87.9	84.1	100	100	ND	88	84	37-123	4	24	
Aldrin	79.6	78.4	100	100	ND	80	78	44-112	2	22	
Heptachlor Epoxide	79.7	79.3	100	100	ND	80	79	46-110	1	22	
gamma-Chlordane	76.3	74.4	100	100	ND	76	74	45-112	3	23	
alpha-Chlordane	77.5	75.4	100	100	ND	78	75	47-106	3	23	
4,4'-DDE	83.0	81.8	100	100	ND	83	82	34-139	1	22	
Endosulfan I	88.5	84.0	100	100	ND	88	84	46-115	5	25	
Dieldrin	85.6	82.1	100	100	ND	86	82	48-115	4	23	
Endrin	85.1	82.1	100	100	ND	85	82	44-120	4	28	
4,4'-DDD	81.7	82.8	100	100	ND	82	83	42-131	1	21	
Endosulfan II	82.3	80.5	100	100	ND	82	80	47-109	2	22	
4,4'-DDT	92.2	88.7	100	100	23.7	68	65	29-135	4	32	
Endrin Aldehyde	81.8	78.0	100	100	ND	82	78	45-99	5	22	
Methoxychlor	86.2	81.0	100	100	ND	86	81	40-132	6	22	
Endosulfan Sulfate	81.4	79.3	100	100	ND	81	79	47-105	3	21	
Endrin Ketone	88.0	83.4	100	100	ND	88	83	46-115	5	22	
Surrogate:											
TCMX						69	69	33-97			
DCB						79	79	36-115			



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-A					
Laboratory ID:	10-077-01					
Aluminum	6100	580	EPA 6010D	10-12-20	10-12-20	
Antimony	ND	5.8	EPA 6010D	10-13-20	10-13-20	
Arsenic	ND	12	EPA 6010D	10-12-20	10-12-20	
Barium	45	2.9	EPA 6010D	10-12-20	10-12-20	
Beryllium	ND	0.58	EPA 6010D	10-12-20	10-12-20	
Cadmium	ND	0.58	EPA 6010D	10-12-20	10-12-20	
Calcium	660	58	EPA 6010D	10-12-20	10-12-20	
Chromium	48	0.58	EPA 6010D	10-13-20	10-13-20	
Cobalt	12	0.58	EPA 6010D	10-12-20	10-12-20	
Copper	37	1.2	EPA 6010D	10-13-20	10-13-20	
Iron	27000	1200	EPA 6010D	10-12-20	10-12-20	
Lead	140	5.8	EPA 6010D	10-12-20	10-12-20	
Magnesium	720	58	EPA 6010D	10-12-20	10-12-20	
Manganese	280	5.8	EPA 6010D	10-12-20	10-12-20	
Mercury	ND	0.29	EPA 7471B	10-12-20	10-12-20	
Nickel	52	2.9	EPA 6010D	10-13-20	10-13-20	
Potassium	700	86	EPA 6010D	10-12-20	10-12-20	
Selenium	ND	12	EPA 6010D	10-12-20	10-12-20	
Silver	ND	1.2	EPA 6010D	10-12-20	10-12-20	
Sodium	ND	86	EPA 6010D	10-12-20	10-12-20	
Thallium	ND	2.9	EPA 6010D	10-12-20	10-12-20	
Vanadium	35	0.58	EPA 6010D	10-12-20	10-12-20	
Zinc	81	2.9	EPA 6010D	10-12-20	10-12-20	



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Sample-1-B					
Laboratory ID:	10-077-02					
Aluminum	5700	580	EPA 6010D	10-12-20	10-12-20	
Antimony	ND	5.8	EPA 6010D	10-13-20	10-13-20	
Arsenic	13	12	EPA 6010D	10-12-20	10-12-20	
Barium	43	2.9	EPA 6010D	10-12-20	10-12-20	
Beryllium	ND	0.58	EPA 6010D	10-12-20	10-12-20	
Cadmium	ND	0.58	EPA 6010D	10-12-20	10-12-20	
Calcium	820	58	EPA 6010D	10-12-20	10-12-20	
Chromium	44	0.58	EPA 6010D	10-13-20	10-13-20	
Cobalt	11	0.58	EPA 6010D	10-12-20	10-12-20	
Copper	38	1.2	EPA 6010D	10-13-20	10-13-20	
Iron	29000	2900	EPA 6010D	10-12-20	10-12-20	
Lead	160	5.8	EPA 6010D	10-12-20	10-12-20	
Magnesium	700	58	EPA 6010D	10-12-20	10-12-20	
Manganese	270	5.8	EPA 6010D	10-12-20	10-12-20	
Mercury	ND	0.29	EPA 7471B	10-12-20	10-12-20	
Nickel	95	2.9	EPA 6010D	10-13-20	10-13-20	
Potassium	690	87	EPA 6010D	10-12-20	10-12-20	
Selenium	ND	12	EPA 6010D	10-12-20	10-12-20	
Silver	ND	1.2	EPA 6010D	10-12-20	10-12-20	
Sodium	ND	87	EPA 6010D	10-12-20	10-12-20	
Thallium	ND	2.9	EPA 6010D	10-12-20	10-12-20	
Vanadium	37	0.58	EPA 6010D	10-12-20	10-12-20	
Zinc	82	2.9	EPA 6010D	10-12-20	10-12-20	



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**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:	MB1012SH1					
Aluminum	ND	50	EPA 6010D	10-12-20	10-12-20	
Arsenic	ND	10	EPA 6010D	10-12-20	10-12-20	
Barium	ND	2.5	EPA 6010D	10-12-20	10-12-20	
Beryllium	ND	0.50	EPA 6010D	10-12-20	10-12-20	
Cadmium	ND	0.50	EPA 6010D	10-12-20	10-12-20	
Calcium	ND	50	EPA 6010D	10-12-20	10-12-20	
Cobalt	ND	0.50	EPA 6010D	10-12-20	10-12-20	
Iron	ND	50	EPA 6010D	10-12-20	10-12-20	
Lead	ND	5.0	EPA 6010D	10-12-20	10-12-20	
Magnesium	ND	50	EPA 6010D	10-12-20	10-12-20	
Manganese	ND	0.50	EPA 6010D	10-12-20	10-12-20	
Potassium	ND	75	EPA 6010D	10-12-20	10-12-20	
Selenium	ND	10	EPA 6010D	10-12-20	10-12-20	
Silver	ND	1.0	EPA 6010D	10-12-20	10-12-20	
Sodium	ND	75	EPA 6010D	10-12-20	10-12-20	
Thallium	ND	2.5	EPA 6010D	10-12-20	10-12-20	
Vanadium	ND	0.50	EPA 6010D	10-12-20	10-12-20	
Zinc	ND	2.5	EPA 6010D	10-12-20	10-12-20	
Laboratory ID:	MB1012S1					
Mercury	ND	0.25	EPA 7471B	10-12-20	10-12-20	
Laboratory ID:	MB1013SH2					
Antimony	ND	5.0	EPA 6010D	10-13-20	10-13-20	
Chromium	ND	0.50	EPA 6010D	10-13-20	10-13-20	
Copper	ND	1.0	EPA 6010D	10-13-20	10-13-20	
Nickel	ND	2.5	EPA 6010D	10-13-20	10-13-20	



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	10-077-01							
	ORIG	DUP						
Aluminum	5300	4840	NA	NA	NA	NA	9	20
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Barium	39.3	37.0	NA	NA	NA	NA	6	20
Beryllium	ND	ND	NA	NA	NA	NA	NA	20
Cadmium	ND	ND	NA	NA	NA	NA	NA	20
Calcium	571	502	NA	NA	NA	NA	13	20
Cobalt	10.6	11.6	NA	NA	NA	NA	9	20
Iron	23400	21000	NA	NA	NA	NA	11	20
Lead	125	118	NA	NA	NA	NA	6	20
Magnesium	626	512	NA	NA	NA	NA	20	20
Manganese	244	244	NA	NA	NA	NA	0	20
Potassium	605	630	NA	NA	NA	NA	4	20
Selenium	ND	ND	NA	NA	NA	NA	NA	20
Silver	ND	ND	NA	NA	NA	NA	NA	20
Sodium	ND	ND	NA	NA	NA	NA	NA	20
Thallium	ND	ND	NA	NA	NA	NA	NA	20
Vanadium	30.3	28.9	NA	NA	NA	NA	5	20
Zinc	70.4	63.6	NA	NA	NA	NA	10	20
Laboratory ID:	10-122-03							
Mercury	ND	ND	NA	NA	NA	NA	NA	20
Laboratory ID:	10-077-01							
	ORIG	DUP						
Antimony	ND	ND	NA	NA	NA	NA	NA	20
Chromium	41.5	38.5	NA	NA	NA	NA	8	20
Copper	32.2	34.3	NA	NA	NA	NA	6	20
Nickel	44.8	42.4	NA	NA	NA	NA	6	20



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-077-01										
	MS	MSD	MS	MSD		MS	MSD				
Aluminum	6110	6260	1000	1000	5300	81	97	75-125	3	20	
Arsenic	98.2	97.8	100	100	ND	98	98	75-125	0	20	
Barium	130	132	100	100	39.3	91	93	75-125	2	20	
Beryllium	49.5	49.3	50.0	50.0	ND	99	99	75-125	0	20	
Cadmium	45.4	45.3	50.0	50.0	ND	91	91	75-125	0	20	
Calcium	1480	1400	1000	1000	571	91	83	75-125	6	20	
Cobalt	61.0	59.1	50.0	50.0	10.6	101	97	75-125	3	20	
Iron	27900	25000	1000	1000	23400	453	160	75-125	11	20	A
Lead	409	416	250	250	125	114	116	75-125	2	20	
Magnesium	1570	1500	1000	1000	626	95	87	75-125	5	20	
Manganese	326	332	25.0	25.0	244	330	354	75-125	2	20	A
Potassium	1520	1620	1000	1000	605	91	101	75-125	7	20	
Selenium	94.9	93.7	100	100	ND	95	94	75-125	1	20	
Silver	22.6	22.5	25.0	25.0	ND	90	90	75-125	0	20	
Sodium	1040	1030	1000	1000	ND	104	103	75-125	2	20	
Thallium	45.2	45.5	50.0	50.0	ND	90	91	75-125	1	20	
Vanadium	78.5	78.0	50.0	50.0	30.3	96	95	75-125	1	20	
Zinc	173	172	100	100	70.4	103	102	75-125	0	20	
Laboratory ID:	10-122-03										
Mercury	0.578	0.571	0.500	0.500	0.0361	108	107	80-120	1	20	
Laboratory ID:	10-077-01										
	MS	MSD	MS	MSD		MS	MSD				
Antimony	83.0	81.8	100	100	ND	83	82	75-125	2	20	
Chromium	146	150	100	100	41.5	105	108	75-125	2	20	
Copper	83.1	80.2	50.0	50.0	32.2	102	96	75-125	3	20	
Nickel	129	129	100	100	44.8	85	84	75-125	0	20	



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**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:	Sample-1-A					
Laboratory ID:	10-077-01					
Diesel Range Organics	ND	29	NWTPH-Dx	10-13-20	10-14-20	
Lube Oil	150	58	NWTPH-Dx	10-13-20	10-14-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	97	50-150				

Client ID:	Sample-1-B					
Laboratory ID:	10-077-02					
Diesel Range Organics	ND	29	NWTPH-Dx	10-13-20	10-14-20	
Lube Oil	140	58	NWTPH-Dx	10-13-20	10-14-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	84	50-150				



Date of Report: October 19, 2020
 Samples Submitted: October 7, 2020
 Laboratory Reference: 2010-077
 Project: 9231000006.5000

**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:	MB1013S1					
Diesel Range Organics	ND	25	NWTPH-Dx	10-13-20	10-13-20	
Lube Oil Range Organics	ND	50	NWTPH-Dx	10-13-20	10-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB1013S1							
	ORIG	DUP						
Diesel Fuel #2	87.7	76.4	NA	NA	NA	NA	14	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				99	94	50-150		



Date of Report: October 19, 2020
Samples Submitted: October 7, 2020
Laboratory Reference: 2010-077
Project: 9231000006.5000

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
Sample-1-A	10-077-01	13	10-7-20
Sample-1-B	10-077-02	14	10-7-20





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 methods 8260 & 8270, 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





Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

Professional
Analytical
Services

Oct 19 2020
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
SAMPLE-1-A	Soil	20-A016336	CONV
SAMPLE-1-B	Soil	20-A016337	CONV

Your samples were received on Wednesday, October 7, 2020. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

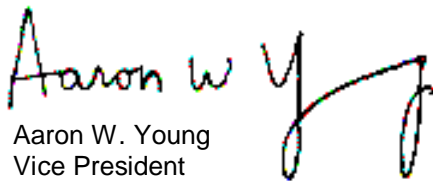
The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,


Aaron W. Young
Vice President

Project #: 9231000006.5000

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



Professional
Analytical
Services

ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 9231000006.5000
All results reported on an as received basis.

Date Received: 10/07/20
Date Reported: 10/19/20

AMTEST Identification Number 20-A016336
Client Identification SAMPLE-1-A
Sampling Date 10/07/20, 11:25

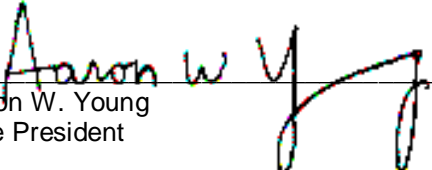
Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Cyanide	0.28	ug/g		0.05	EPA 335.4	AW	10/09/20

AMTEST Identification Number 20-A016337
Client Identification SAMPLE-1-B
Sampling Date 10/07/20, 11:30

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Cyanide	0.37	ug/g		0.05	EPA 335.4	AW	10/09/20


Aaron W. Young
Vice President

QC Summary for sample numbers: 20-A016336 to 20-A016337

MATRIX SPIKES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
20-A016337	Total Cyanide	ug/g	0.37	1.0	0.55	114.54 %
20-A016337	Total Cyanide	ug/g	0.37	1.0	0.55	114.54 %

MATRIX SPIKE DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE + SPK	MSD VALUE	RPD
Spike	Total Cyanide	ug/g	1.0	1.0	0.00

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Total Cyanide	ug/g	0.10	0.096	96.0 %

BLANKS

ANALYTE	UNITS	RESULT
Total Cyanide	ug/g	< 0.05



14648 NE 95th Street, Redmond, WA 98052 - (425) 883-3881

Laboratory: AmTest Laboratories

Attention: Aaron Young

13600 NE 126th PI Kirkland, WA 98034

Phone Number: (425) 885-1664

Turnaround Request

1 Day 2 Day 3 Day

Standard

Other: _____

Laboratory Reference #: 10-077

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 9231000006.5000

Project Name: _____

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analyses
Sample-1-A	16336	10/7/20	11:25	Soil	1	Total Cyanide
Sample-1-B	37	10/7/20	11:30	Soil	1	Total Cyanide
Relinquished by: <i>[Signature]</i>		Company	Date	Time	Comments/Special Instructions	
Received by: <i>[Signature]</i>		OSE	10/7	1530		
Relinquished by:		AMTEST	10/7/20	1530		
Received by:		T= 12.0				
Relinquished by:						
Received by:						



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

Chain of Custody

Company: Goldier

Project Number: 925100006.5000

Project Name: Landsburg

Project Manager: Gary Zimmerman

Sampled by: Gary Zimmerman

Turnaround Request (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

		Laboratory Number: <u>10-077</u>																								
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> 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	<u>TAL Metals</u>	<u>Total Cyanide</u>	% Moisture	
<u>1</u>	<u>Sample - 1 - A</u>	<u>10/7/20</u>	<u>1125</u>	<u>Soil</u>	<u>7</u>	X	<u>HL</u>	<u>HL</u>	●	X			X		X	X							X	X		X
<u>2</u>	<u>Sample - 1 - B</u>	<u>10/7/20</u>	<u>1130</u>	<u>Soil</u>	<u>7</u>	X	<u>HL</u>	<u>HL</u>	●	X			X		X	X							X	X		X

Signature	Company	Date	Time	Comments/Special Instructions
<u>Joseph Xi</u>	<u>Goldier</u>	<u>10/7/20</u>	<u>1145</u>	<u>Analyze in accordance with MSA between Goldier and Onsite.</u> <u>● Added 10/14/2020 DB (STA)</u>
<u>Gary Zimmerman</u>	<u>Goldier</u>	<u>10-7-20</u>	<u>1145</u>	
<u>Gary Zimmerman</u>	<u>Goldier</u>	<u>10-7-20</u>	<u>1350</u>	
<u>Walter Urum</u>	<u>OSE</u>	<u>10/7/20</u>	<u>1350</u>	
				Data Package: Standard <input checked="" type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>
				Chromatograms with final report <input checked="" type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>



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

November 4, 2020

Gary Zimmerman
Golder Associates Inc.
18300 NE Union Hill Road
Suite 200
Redmond, WA 98052-3333

Re: Analytical Data for Project 9231000006.5000
Laboratory Reference No. 2010-345

Dear Gary:

Enclosed are the analytical results and associated quality control data for samples submitted on October 29, 2020.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 4, 2020
Samples Submitted: October 29, 2020
Laboratory Reference: 2010-345
Project: 9231000006.5000

Case Narrative

Samples were collected on October 29, 2020 and received by the laboratory on October 29, 2020. 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: November 4, 2020
 Samples Submitted: October 29, 2020
 Laboratory Reference: 2010-345
 Project: 9231000006.5000

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-A-1029					
Laboratory ID:	10-345-01					
Aroclor 1016	ND	0.056	EPA 8082A	11-3-20	11-3-20	
Aroclor 1221	ND	0.056	EPA 8082A	11-3-20	11-3-20	
Aroclor 1232	ND	0.056	EPA 8082A	11-3-20	11-3-20	
Aroclor 1242	ND	0.056	EPA 8082A	11-3-20	11-3-20	
Aroclor 1248	ND	0.056	EPA 8082A	11-3-20	11-3-20	
Aroclor 1254	0.10	0.056	EPA 8082A	11-3-20	11-3-20	
Aroclor 1260	ND	0.056	EPA 8082A	11-3-20	11-3-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	94	46-125				
Client ID:	S1-B-1029					
Laboratory ID:	10-345-02					
Aroclor 1016	ND	0.057	EPA 8082A	11-3-20	11-3-20	
Aroclor 1221	ND	0.057	EPA 8082A	11-3-20	11-3-20	
Aroclor 1232	ND	0.057	EPA 8082A	11-3-20	11-3-20	
Aroclor 1242	ND	0.057	EPA 8082A	11-3-20	11-3-20	
Aroclor 1248	ND	0.057	EPA 8082A	11-3-20	11-3-20	
Aroclor 1254	0.17	0.057	EPA 8082A	11-3-20	11-3-20	
Aroclor 1260	ND	0.057	EPA 8082A	11-3-20	11-3-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	112	46-125				



Date of Report: November 4, 2020
 Samples Submitted: October 29, 2020
 Laboratory Reference: 2010-345
 Project: 9231000006.5000

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1103S1					
Aroclor 1016	ND	0.050	EPA 8082A	11-3-20	11-3-20	
Aroclor 1221	ND	0.050	EPA 8082A	11-3-20	11-3-20	
Aroclor 1232	ND	0.050	EPA 8082A	11-3-20	11-3-20	
Aroclor 1242	ND	0.050	EPA 8082A	11-3-20	11-3-20	
Aroclor 1248	ND	0.050	EPA 8082A	11-3-20	11-3-20	
Aroclor 1254	ND	0.050	EPA 8082A	11-3-20	11-3-20	
Aroclor 1260	ND	0.050	EPA 8082A	11-3-20	11-3-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	101		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-317-05										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.462	0.477	0.500	0.500	ND	92	95	43-125	3	15	
<i>Surrogate:</i>											
DCB						105	105	46-125			



Date of Report: November 4, 2020
Samples Submitted: October 29, 2020
Laboratory Reference: 2010-345
Project: 9231000006.5000

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
S1-A-1029	10-345-01	10	11-3-20
S1-B-1029	10-345-02	12	11-3-20





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 methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

Chain of Custody

Company: Goldor
Project Number: 923 (2020) C. 5000
Project Name: Landsburg
Project Manager: Gary Zimmerman
Sampled by: Joseph Xi, Gary Zimmerman

Turnaround Request (in working days)

(Check One)

Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days)
 _____ (other)

Laboratory Number: **10-345**

Lab ID	Sample Identification	Date		Matrix	Number of Containers
		Sampled	Time Sampled		
I	SI-A-1029	10/29/2020	0735	Soil	1
Z	SI-B-1029	10/29/2020	0740	↓	1

NWTPH-HCID	NWTPH-GX/BTEX	NWTPH-GX	NWTPH-DX (<input type="checkbox"/> 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
										X							X
										X							X

Signature	Company	Date	Time	Comments/Special Instructions
<u>[Signature]</u>	<u>Goldor</u>	<u>10-29-20</u>	<u>09:15</u>	<u>Analyze in accordance w/ MSA between Goldor & Waste Env.</u>
<u>[Signature]</u>	<u>OSF</u>	<u>10/29/2020</u>	<u>09:15</u>	
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date	Reviewed/Date	Data Package: Standard <input checked="" type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>		
		Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input checked="" type="checkbox"/>		