

APPENDIX C
BORING LOGS

REMEDIAL INVESTIGATION WORK PLAN

Block 79 East Site
701, 739, 753 9th Avenue North
Seattle, Washington

Farallon PN: 397-035



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 128' S of NW corner of city light building
Well Location E/W: 18' W of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | B121

Site Address: 700 Dexter Avenue North
Seattle, WA

Water Depth At Time of Drilling -- feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete cored prior to drilling. Concrete 4 inches thick.	
5	8 16 20		100	0.0	B121-05	SM		Damp, medium dense, silty SAND with gravel, brown, (30-60-10) (FILL).	
10	6 7 8		100	0.0		SM		Damp, loose, silty SAND with gravel and miscellaneous debris, black, no hydrocarbon odor (FILL).	
15									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 26.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: BID 016

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 128' S of NW corner of city light building
Well Location E/W: 18' W of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | B121

Site Address: 700 Dexter Avenue North
Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	3 2 1		100	0.0	B121-15	ML		Wet, loose, SILT with sand and gravel, gray, wood ash, no hydrocarbon odor (50-40-10).	
20	0 2 4		100	0.0		ML		Wet, dense, SILT with sand and gravel, gray, no hydrocarbon odor (possible lake sediments) (50-40-10).	
25	1 1 3		100	0.0	B121-25	ML		Moist, loose, SILT with fine sand and organics, gray, no hydrocarbon odor (70-30-0).	
30								Boring terminated at 26.5 feet below ground surface (bgs). Two-inch diameter well installed to a depth of 25 feet bgs, screened from 15 to 25 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW121.	

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 26.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: BID 016

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



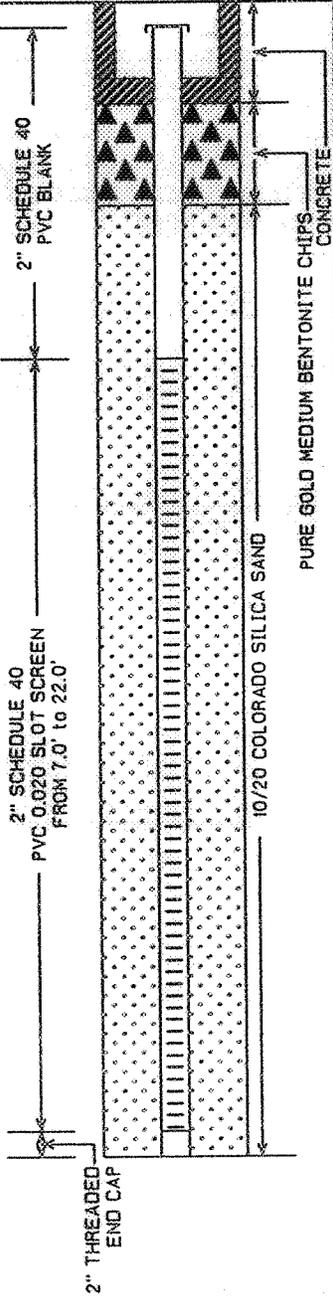
BORING/WELL INSTALLATION LOG

Monitoring Well MW9

1011 SW Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PROJECT NO: 3-1274-200 Seattle Parks		CLIENT: Seattle Park Department
LOCATION: 8th and Aloha Seattle, WA		DRILLING CO.: Geoboring and Development
START DATE: 10/18/93 TIME: 1315	BORING ID: 8"	DRILLER: Pat Ternes
COMPLETION DATE: 10/18/93 TIME: 1540	TOTAL DEPTH: 22.5 feet	RIG TYPE: Mobile B-61
WATER LEVEL DURING DRILLING: bgs	PVC STICK-UP:	METHOD: HSA
SURFACE ELEV.: 81.65	MP ELEV.: 81.35 TOC PVC	LOGGED BY: G. Hainsworth

DEPTH (in feet)	WELL CONSTRUCTION		SOIL DESCRIPTION		SAMPLE DATA				
	U.S.C.S.	LITHOLOGY	TYPE	DEPTH	BLOWS /ft	%RECOVERY	PID (ppm)		
0 - 1.5		ASPHALT & GRAVEL							
1.5 - 3.5		FILL: Silty sand; dark gray-brown; fine to medium sand; little wood debris; soft; moist	SS	11 1 2	30				
3.5 - 7.5		FILL: Silty sand; gray-green; fine to medium sand; trace fine gravel; very soft; moist; no odor	SS	7 7 9	20				
7.5 - 11.5		FILL: Silty sand; gray-green; fine to medium sand; trace fine gravel; very soft; wet; no odor	SS	4 4 4	10				
11.5 - 15.5		FILL: Silty sand; gray-green; fine to medium sand; trace fine gravel; very soft	SS	5 6 9	10				
15.5 - 20.5	ML	SANDY SILT: Green-gray; very fine to fine sand; medium dense; wet; no odor							
20.5 - 22.5	SM	SILTY SAND: Green-gray; very fine to medium sand; stiff; moist; no odor	SS	12 13 19					
Total Depth = 24'									



REMARKS: SS = Split Spoon
■ = Analytical Sample



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 38' N of NW corner of city light building
Well Location E/W: 16.2' E of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | **B120**
 MW120

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete 10"-thick.	
5	13 15 17		100	0.0		SM		Damp, loose, silty SAND with gravel, brown, no hydrocarbon odor (30-55-15).	
10	10 11 15		100	0.0	B120-10	SM		Damp, loose, silty SAND with gravel, brown with gray spots, no hydrocarbon odor (35-55-10).	
15									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 015

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 38' N of NW corner of city light building
Well Location E/W: 16.2' E of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | **B120**
 MW120

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	2 6 7		100	0.4		SM		Wet to moist, loose, silty SAND, trace gravel, gray, no hydrocarbon odor (35-60-5).	
20	2 3 5		20	0.0	B120-20	ML		Wet, loose, silty with fine SAND and trace gravel, gray, no hydrocarbon odor (60-35-5).	
25	16 16 19		0					Driller reports very dense at 24' bgs. No recovery.	
30									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 015

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 38' N of NW corner of city light building
Well Location E/W: 16.2' E of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | **B120**
 MW120

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30		50/6	33	0.0	B120-30	SP		Wet, very dense, fine to medium SAND with trace silty and gravel, no hydrocarbon odor (10-85-5).	
35		50/6	100	0.0		GP		Wet, very dense, fine GRAVEL with sand and silt, brown, no hydrocarbon odor (10-20-70).	
						SP		Wet, very dense, medium to fine SAND with silt, brown, no hydrocarbon odor (10-90-0).	
40		50/6	0					No recovery.	
45									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 015

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



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Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 38' N of NW corner of city light building
Well Location E/W: 16.2' E of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | **B120**
 MW120

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45		50/6	33	0.0	B120-45	ML		Wet, very dense, silt with fine SAND and gravel, gray, no hydrocarbon odor with wood ash (60-35-5).	
50		50/6	33	0.0	B120-50	ML		Wet, very dense, SILT with fine sand and gravel, gray, no hydrocarbon odor (60-35-5).	
55								Boring terminated at 50.5 feet below ground surface (bgs). Two-inch diameter well installed to a depth of 50 feet bgs, screened from 40 to 50 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW120.	
60									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 015

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 38' N of NW corner of city light building
Well Location E/W: 16.2' E of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | **B120**
 MW120

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete 10"-thick.	
5	13 15 17		100	0.0		SM		Damp, loose, silty SAND with gravel, brown, no hydrocarbon odor (30-55-15).	
10	10 11 15		100	0.0	B120-10	SM		Damp, loose, silty SAND with gravel, brown with gray spots, no hydrocarbon odor (35-55-10).	
15									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 015

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 38' N of NW corner of city light building
Well Location E/W: 16.2' E of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | B120 MW120

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	2 6 7		100	0.4		SM		Wet to moist, loose, silty SAND, trace gravel, gray, no hydrocarbon odor (35-60-5).	
20	2 3 5		20	0.0	B120-20	ML		Wet, loose, silty with fine SAND and trace gravel, gray, no hydrocarbon odor (60-35-5).	
25	16 16 19		0					Driller reports very dense at 24' bgs. No recovery.	
30									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 015

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 38' N of NW corner of city light building
Well Location E/W: 16.2' E of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | **B120**
 MW120

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30		50/6	33	0.0	B120-30	SP		Wet, very dense, fine to medium SAND with trace silty and gravel, no hydrocarbon odor (10-85-5).	
35		50/6	100	0.0		GP		Wet, very dense, fine GRAVEL with sand and silt, brown, no hydrocarbon odor (10-20-70).	
						SP		Wet, very dense, medium to fine SAND with silt, brown, no hydrocarbon odor (10-90-0).	
40		50/6	0				No recovery.		
45									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 015

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 38' N of NW corner of city light building
Well Location E/W: 16.2' E of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | **B120**
 MW120

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45		50/6	33	0.0	B120-45	ML		Wet, very dense, silt with fine SAND and gravel, gray, no hydrocarbon odor with wood ash (60-35-5).	
50		50/6	33	0.0	B120-50	ML		Wet, very dense, SILT with fine sand and gravel, gray, no hydrocarbon odor (60-35-5).	
55								Boring terminated at 50.5 feet below ground surface (bgs). Two-inch diameter well installed to a depth of 50 feet bgs, screened from 40 to 50 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW120.	
60									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 015

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/31/13
Surface Conditions: Concrete
Well Location N/S: 155' N of NW corner of city light building
Well Location E/W: 4' W of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/31/13

BORING LOG | **B127**
 MW127

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete 7 inches thick.	
								Vac clean to 10' bgs.	
10	9 18 16		80	0.0	B127-10	SM		Damp, dense, silty SAND with gravel, brown, no hydrocarbon odor (35-55-10).	
15									

Drilling Co./Driller: Cascade Drilling/ Frank
Drilling Equipment: HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 022

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 15 to 30 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:

 Page: | **1 of 4**



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/31/13
Surface Conditions: Concrete
Well Location N/S: 155' N of NW corner of city light building
Well Location E/W: 4' W of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/31/13

BORING LOG | **B127**
 MW127

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	4 7 8		90	0.0	B127-15	ML		Moist, loose, SILT with fine sand, gray, no hydrocarbon odor (75-25-0).	
20	16 50/6		0	--	--			Wood in sampler.	
25	50/6		100	0.0	B127-25	GM		Wet, very dense, silty GRAVEL with sand, gray, no hydrocarbon odor (20-20-60). Wood waste and some soil in samler.	
30									

Drilling Co./Driller: Cascade Drilling/ Frank
Drilling Equipment: HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 022

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 15 to 30 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/31/13
Surface Conditions: Concrete
Well Location N/S: 155' N of NW corner of city light building
Well Location E/W: 4' W of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/31/13

BORING LOG | **B127**
 MW127

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30		50/6	50	0.0	B127-30	SP		Wet, very dense, medium to fine SAND with silt, gray, no hydrocarbon odor (10-90-0).	
35		50/6	70	0.0	B127-35	ML		Damp, very dense, SILT with fine sand, cohesive, gray, no hydrocarbon odor (70-30-0).	
40		50/6	50	0.0	B127-40	ML		Wet, very dense, SILT with fine sand, cohesive, gray, no hydrocarbon odor (60-40-0).	
45								Trace sand with gravel in end of sampler.	

Drilling Co./Driller: Cascade Drilling/ Frank
Drilling Equipment: HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 022

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 15 to 30 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/31/13
Surface Conditions: Concrete
Well Location N/S: 155' N of NW corner of city light building
Well Location E/W: 4' W of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/31/13

BORING LOG | **B127**
 MW127

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45		50/6	100	0.0	B127-45	SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-50-10).	
50		50/6	100	0.0	B127-50	SP		Wet, very dense, medium to fine SAND with silt, brown, no hydrocarbon odor (10-90-0).	
55								Boring terminated at 50.5 feet below ground surface (bgs). Two-inch diameter well installed to a depth of 50 feet bgs, screened from 40 to 50 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW127.	
60									

Drilling Co./Driller: Cascade Drilling/ Frank
Drilling Equipment: HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BID 022

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 15 to 30 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Well Completion	PID (PPM)	Sample ID	Blow Count	Sample Recovery	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
Concrete	0.1	MW-143-10	14	5	5	0	[Graphic Log]	Concrete (6 inches)
			25			2		GRAY BROWN SILTY SAND (SM), moist, loose, fine to coarse sand, but predominantly fine sand, some fines, odorless, (FILL)
Bentonite Chips	0.1	MW-143-10	10	12	10	4	[Graphic Log]	Air knife/Vac to 5 feet bgs
	0.2		9			GRAY/RED/BROWN/BLACK ORGANIC FILL (OL), pieces of slag, creosote smelling wood fibers, brick, wire, nails, and other debris, smells like organic decomposition		
Sch. 40 PVC blank casing	0.2	MW-143-20	12	18	12	8	[Graphic Log]	GRAY TRANSITIONING TO BROWN SILTY SAND (SM), moist, loose, fine to coarse sand, some fines, trace fine to coarse gravel up to 1.5-inch diameter
	0.2		12					
Bentonite Grout	0.3	MW-143-30	11	17	14	14	[Graphic Log]	GRAY GREEN SILTY SAND (SM), wet, loose, fine to coarse, little fines, trace fine gravel
	0.2		12			GRAY SANDY SILT (ML), moist, firm, some fine to medium sand, carbonized wood present, can be rolled repeatedly into 5-6 mm roll and support itself, low plasticity		
Bentonite Grout	0.1	MW-143-40	13	18	16	18	[Graphic Log]	GRAY LEAN CLAY (CL), moist, firm, little to few fine to medium sand, can be repeatedly rolled into 4 mm roll
	0.1		15			GRAY BROWN SILTY SAND (SM), moist, loose, fine to medium, some fines		
Bentonite Grout	0.2	MW-143-50	15	12	18	20	[Graphic Log]	GRAY SILTY SAND (SM), wet, loose, fine to medium, little fines
	0.1		12					
Bentonite Grout	0.1	MW-143-60	16	6	30	24	[Graphic Log]	LIGHT BROWN SILTY SAND (SM), wet, medium dense, fine to coarse, some fines
	0.0		15			GRAY SILTY SAND (SM), wet, medium dense to dense, fine to coarse, little to some fines, coarsening downward		
Bentonite Grout	0.2	MW-143-70	37	6	36	26	[Graphic Log]	
	50/8		15					
Bentonite Grout	0.1	MW-143-80	50/8	6	6	32	[Graphic Log]	
	50/8		6					

Project: Former American Linen Supply
 Project Number: 1413.001.05.304
 Site Location: Seattle, WA
 Logged By: RTM
 Notes: 140 lbs. Hammer w/ D&M

Total Drilled Depth: 80.5
 Diameter of Boring: 9 Inches
 Drill Date: 4/11/18
 Drilled By: Cascade Drilling
 Drill Method: Hollow Stem Auger



Well Completion	PID (PPM)	Sample ID	Blow Count	Sample Recovery	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
<p>Bentonite Grout</p> <p>Sch. 40 PVC blank casing</p> <p>Bentonite Pellets</p> <p>#2/12 Sand Filter Pack</p> <p>0.020-inch Sch. 40 PVC Screen</p>						42		
			40 100/8	12		44		Ring sample driven @ 44.5 feet bgs. 12-inch recovery
	0.2 0.2	MW-143-50	39 80/8	12		46		
						48		
	0.2 0.2		46 50/8	12		50		GRAY BROWN SILTY SAND WITH GRAVEL (SM), wet, medium dense, fine to coarse, little fines, little, fine to coarse gravel up to 2-inch diameter
						52		
	0.2 0.2		46 50/8	12		54		GRAY BROWN SILTY SAND (SM), wet, medium dense, fine to coarse, little fines
						56		GRAY SILTY SAND (SM), moist, very dense, fine to medium, some fines, trace rounded gravel
	0.5	MW-143-60	80/8	6		60		
	0.1		100/8	6		64		
0.1	MW-143-70	100/8	6		70			
0.1		100/8	5		74			
0.1	MW-143-80	100/8			80			

Project: Former American Linen Supply
 Project Number: 1413.001.05.304
 Site Location: Seattle, WA
 Logged By: RTM
 Notes: 140 lbs. Hammer w/ D&M

Total Drilled Depth: 80.5
 Diameter of Boring: 9 Inches
 Drill Date: 4/11/18
 Drilled By: Cascade Drilling
 Drill Method: Hollow Stem Auger



Well Completion	PID (PPM)	Sample ID	Blow Count	Sample Recovery	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
End Cap		MW-902-20				80.5		Bottom of borehole @ 80.5 feet bgs
						82		
						84		
						86		
						88		
						90		
						92		
						94		
						96		
						98		
						100		
						102		
						104		
						106		
						108		
						110		
						112		
						114		
						116		
						118		
						120		

Project: Former American Linen Supply
 Project Number: 1413.001.05.304
 Site Location: Seattle, WA
 Logged By: RTM
 Notes: 140 lbs. Hammer w/ D&M

Total Drilled Depth: 80.5
 Diameter of Boring: 9 Inches
 Drill Date: 4/11/18
 Drilled By: Cascade Drilling
 Drill Method: Hollow Stem Auger



Well Completion	PID (PPM)	Sample ID	Blow Count	Sample Recovery	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
Concrete						0		Concrete (6 inches)
						2		BROWN SILTY SAND (SM), moist, loose, fine to medium, little fines, fill material with glass, brick, slag, and gravel debris, (FILL)
	0.1 0.0		5 5 7	10		4		Air knife/Vac to 5 feet bgs
		MW-145-10	21 27 30	18		10		RED BROWN SILT (ML), moist, hard, little fine to coarse sand, mottling present and inclusions of burnt wood, can be rolled repeatedly into 4-5 mm roll and support itself, low plasticity, (FILL)
	0.1 0.1 0.1		14 19 20	18		14		
						16		GRAY GREEN AND BROWN MOTTLED LEAN CLAY WITH SAND (CL), moist, firm, few to little fine to medium sand, can be repeatedly rolled into 4 mm roll and support itself
						18		
	0.1 0.1 0.1	MW-145-20	20 28 20	16		20		GRAY SANDY SILT (ML), moist, firm to hard, some fine to coarse sand, mottling and occasional sand lenses
						22		@ 21 feet bgs color change from gray to light red brown
Bentonite Chips						24		LIGHT REDDISH BROWN SILTY SAND (SM), wet, medium dense, fine to medium, some fines, trace fine gravel
Sch. 40 PVC blank casing	0.1 0.1		34 50/B	12		26		
						28		
	0.1	MW-145-30	50/B	6		30		LIGHT BROWN SANDY SILT (ML), moist, hard, some fine to medium sand
						32		
						34		GRAY SANDY SILT (ML), moist, hard, some fine to coarse sand
	0.0		50/5	5		36		
						38		GRAY SILTY SAND (SM), moist, medium dense to dense, fine to medium, some fines, trace gravel
	0.1	MW-145-40	50/B	4		40		

Project: Former American Linen Supply
 Project Number: 1413.001.05.304
 Site Location: Seattle, WA
 Logged By: RTM
 Notes: 140 lbs. Hammer w/ D&M

Total Drilled Depth: 80.5
 Diameter of Boring: 9 Inches
 Drill Date: 4/17/18
 Drilled By: Cascade Drilling
 Drill Method: Hollow Stem Auger



Well Completion	PID (PPM)	Sample ID	Blow Count	Sample Recovery	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
	0.1		100/6	6	44-46	42-48		
	0.0	MW-145-50	100/6	6	46-50	48-52		GRAY SANDY SILT (ML), moist, very hard. some fine to medium sand, trace fine to coarse gravel up to 2.5-inch diameter
	0.0		100/6	6	50-54	52-56		
	0.0	MW-145-60	80/6	6	54-60	56-62		
	0.0		70/6	6	60-64	62-66		GRAY SILTY SAND (SM), moist, dense, fine to medium, some fines
	0.1	MW-145-70	100/6	6	64-70	66-72		GRAY SILT (ML), moist, very hard, few fine to medium sand
	0.0		100/6	6	70-74	72-76		GRAY SANDY SILT (ML), moist, very hard, some fine to medium sand
	0.0		100/6	6	74-78	76-80		GRAY SILT WITH SAND (ML), moist, very hard, few fine to medium sand, trace fine gravel up to 0.5-inch diameter, occasional thin sand lenses
	0.2	MW-145-80	100/6	6	78-80	80		

Project: Former American Linen Supply
 Project Number: 1413.001.05.304
 Site Location: Seattle, WA
 Logged By: RTM
 Notes: 140 lbs. Hammer w/ D&M

Total Drilled Depth: 80.5
 Diameter of Boring: 9 Inches
 Drill Date: 4/17/18
 Drilled By: Cascade Drilling
 Drill Method: Hollow Stem Auger



Well Completion	PID (PPM)	Sample ID	Blow Count	Sample Recovery	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
End Cap		MW-903-40				82		Bottom of borehole @ 80.5 feet bgs
						84		
						86		
						88		
						90		
						92		
						94		
						96		
						98		
						100		
						102		
						104		
						106		
						108		
						110		
						112		
						114		
						116		
						118		
						120		

Project: Former American Linen Supply
 Project Number: 1413.001.05.304
 Site Location: Seattle, WA
 Logged By: RTM
 Notes: 140 lbs Hammer w/ D&M

Total Drilled Depth: 80.5
 Diameter of Boring: 9 Inches
 Drill Date: 4/17/18
 Drilled By: Cascade Drilling
 Drill Method: Hollow Stem Auger



Well Completion	PID (PPM)	Sample ID	Blow Count	Sample Recovery	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
	0.2 0.7		38 50/8	12		0		Concrete (6 inches)
						2		Drilled to 34.5 feet bgs without driving samples. See log for adjacent hole MW-158 for lithology from 0 to 34 feet bgs.
						4		
						6		Air knife/Vac to 5 feet bgs
						8		
						10		
						12		
						14		
						16		
						18		
						20		
						22		
						24		
						26		
						28		
						30		
						32		
						34		
						36		GRAY SANDY SILT (ML), wet, hard, some fine sand
						38		GRAY SANDY SILT (ML), moist, hard, little fine to coarse sand, trace gravel
						40		

Project: Former American Linen Supply
 Project Number: 1413.001.05.304
 Site Location: Seattle, WA
 Logged By: RTM
 Notes: 140 lbs. Hammer w/ D&M

Total Drilled Depth: 100.5
 Diameter of Boring: 9 Inches
 Drill Date: 4/5/18
 Drilled By: Cascade Drilling
 Drill Method: Hollow Stem Auger



Well Completion	PID (PPM)	Sample ID	Blow Count	Sample Recovery	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
						42		@ 40 feet bgs thin gravel layer
						44		GRAY TO LIGHT BROWN SANDY SILT (ML), wet, hard, some fine to coarse sand
Bentonite Grout	0.0		50/6	6		46		
						48		
	0.0	MW-158-50	50/5	6		50		GRAY FAT CLAY (CH), moist, hard, high plasticity, can be rolled repeatedly into 2-3 mm roll and support itself
						52		LIGHT BROWN SILTY SAND (SM), moist, medium dense, fine to medium, some fines
						54		
Sch. 40 PVC blank casing	0.1		50/6	6		56		
						58		
	0.1	MW-158-60	50/6	5		60		RED BROWN SILT WITH SAND (ML), moist, hard, little sand
						62		
	0.0		100/6	6		64		GRAY SANDY SILT (ML), moist, hard, some fine to coarse sand, trace gravel
						66		
						68		GRAY SILTY SAND (SM), moist, medium dense, fine to medium, some fines
	0.1	MW-158-70	50/6	6		70		
						72		
						74		GRAY SANDY SILT (ML), moist, hard, some fine to medium sand
						76		
Bentonite Pellets	0.0		50/6	6		78		
						80		

Project: Former American Linen Supply
 Project Number: 1413.001.05.304
 Site Location: Seattle, WA
 Logged By: RTM
 Notes: 140 lbs. Hammer w/ D&M

Total Drilled Depth: 100.5
 Diameter of Boring: 9 Inches
 Drill Date: 4/5/18
 Drilled By: Cascade Drilling
 Drill Method: Hollow Stem Auger



Well Completion	PID (PPM)	Sample ID	Blow Count	Sample Recovery	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
	0.0		100/6	6	82-84	82		GRAY SILT WITH SAND (ML), moist, very hard, few fine sand
	0.0	MW-158-90	100/6	6	88-90	88		GRAY SANDY SILT (ML), moist, very hard, some fine to coarse sand, trace fine gravel
	0.0		100/6	6	94-96	94		
	0.0	MW-158-100	30/50/6	12	98-100	98		GRAY SILTY SAND (SM), wet, medium dense, fine to medium, some fines, odorless
	0.0					100		Bottom of borehole @ 100.5 feet bgs
						102		
						104		
						106		
						108		
						110		
						112		
						114		
						116		
						118		
						120		

Project: Former American Linen Supply
 Project Number: 1413.001.05.304
 Site Location: Seattle, WA
 Logged By: RTM
 Notes: 140 lbs. Hammer w/ D&M

Total Drilled Depth: 100.5
 Diameter of Boring: 9 Inches
 Drill Date: 4/5/18
 Drilled By: Cascade Drilling
 Drill Method: Hollow Stem Auger



Well Completion	PID (PPM)	Sample ID	Blow Count	Sample Recovery	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
Concrete						0		Concrete (6 inches)
						2		GRAY AND BLACK SILTY SAND (SM), moist, loose, fine to medium sand with pieces of brick, glass, wood, slag and other debris, faint odor of organic decomposition, (FILL)
	0.0		8			4		
	0.0		10	16		6		Air knife/Vac to 5 feet bgs
	0.0		11			8		
Bentonite Chips	0.0		10			10		@ 10 feet bgs: Sample collected for grain size analysis
	0.0		12	18		12		LIGHT BROWN GRAY SANDY SILT (ML), moist, firm, some fine to medium sand, trace gravel, low to medium plasticity, can be repeatedly rolled into 5-6 mm roll and support itself
	0.0		14			14		
Sch. 40 PVC blank casing	0.0		9			16		GRAY BROWN SANDY LEAN CLAY (CL), wet, soft, little to some fine to medium sand, medium plasticity, can be repeatedly rolled into 4 mm roll and support itself
	0.0		10	17		18		
	0.0		10			20		@ 20 feet bgs few fine to coarse gravel
#2/12 Sand Filter Pack	0.4	MW-159-20	13			22		GRAY SANDY SILT (ML), moist, firm, some fine sand
	0.0		21	16		24		GRAY SANDY SILT (ML), moist, hard, few to little fine to medium sand, mottling present
	0.0		21			26		@ 25 feet bgs: Sample collected for F.O.C/ grain size analysis Drove ring sample from 27 to 28 feet bgs
0.020-inch Sch. 40 PVC Screen	0.0		50/8	6		28		GRAY SILTY SAND (SM), wet, dense, fine to medium, little fines
			31	12		30		
End Cap	0.0	MW-159-30	50/8	6		32		Bottom of borehole @ 31 feet bgs
						34		
						36		
						38		
						40		

Project: Former American Linen Supply
 Project Number: 1413.001.05.304
 Site Location: Seattle, WA
 Logged By: RTM
 Notes: 140 lbs. Hammer w/ D&M

Total Drilled Depth: 31
 Diameter of Boring: 9 Inches
 Drill Date: 4/16/18
 Drilled By: Cascade Drilling
 Drill Method: Hollow Stem Auger



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: -
Well Location E/W: -
Reviewed by: CCC
Date Completed: 12/17/12

BORING LOG | **B113**
 MW113

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete 1.5 feet thick at surface.	
5								Cleared borehole with a vector truck to a depth of 9 feet below ground surface.	
10	12	12	100	44.8	B113-10	SM		Dry, medium dense, silty medium to fine SAND with gravel, light brown, no solvent or hydrocarbon odor (15-70-15).	
15									

Drilling Co./Driller: Cascade
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS764

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 70-80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: -
Well Location E/W: -
Reviewed by: CCC
Date Completed: 12/17/12

BORING LOG | **B113**
 MW113

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	15		100	63.7		SM		Damp, dense, silty SAND with gravel, gray, moderate hydrocarbon odor (25-65-10).	
	16								
	22								
20	8		100	5.2	B113-20	SP-SM		Wet, medium dense, medium to fine SAND with gravel, gray, no solvent or hydrocarbon odor (10-75-15).	
	8								
	9								
25	8		100	1.5		SM		Wet, medium dense, silty medium to fine SAND with gravel, gray, no solvent or hydrocarbon odor (25-60-15).	
	10								
	12								
30									

Drilling Co./Driller: Cascade
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS764

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 70-80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: -
Well Location E/W: -
Reviewed by: CCC
Date Completed: 12/17/12

BORING LOG | **B113**
 MW113

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	12	100	0.3	B113-30	SM-ML		Wet, medium dense, silty fine SAND with gravel, gray, no solvent or hydrocarbon odor (40-50-10). Lacostrine sediments.		
35	13	100	0.3		SM-ML		Wet, medium dense, silty fine SAND with trace gravel, gray, no solvent or hydrocarbon odor (45-50-5). Lacostrine sediments.		
40	9	100	0.0	B113-40	ML		Damp, medium dense, SILT with fine sand, gray, no solvent or hydrocarbon odor (80-20-0).		
45									

Drilling Co./Driller: Cascade
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS764

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 70-80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: -
Well Location E/W: -
Reviewed by: CCC
Date Completed: 12/17/12

BORING LOG | **B113**
 MW113

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45	11-17	11	100	2.1		SP-SM		Wet, dense, medium to fine SAND with trace gravel, gray no solvent or hydrocarbon odor (10-85-5).	
50	17-23	14	100	0.3	B113-50	SP-SM		Wet, dense, medium to fine SAND with silt, gray, no solvent or hydrocarbon odor (10-90-0).	
55	23-20	20	100	0.9		SP		Wet, dense, medium to fine SAND with trace silt, gray, no solvent or hydrocarbon odor (5-95-0).	
60									

Drilling Co./Driller: Cascade
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS764

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 70-80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: -
Well Location E/W: -
Reviewed by: CCC
Date Completed: 12/17/12

BORING LOG | B113 MW113

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
60			0					No recovery. Driller reports sandy material.	
65			0				No recovery. Driller reports sandy material.		
70			0				No recovery.		
75									

Drilling Co./Driller: Cascade
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS764

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 70-80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: -
Well Location E/W: -
Reviewed by: CCC
Date Completed: 12/17/12

BORING LOG | **B113**
 MW113

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
75			0					No recovery. Driller reports sand.	
80			0				No recovery. Driller reports sand.		
85							Boring terminated at 80 feet below ground surface. Two-inch-diameter well installed to a depth of 80 feet bgs, screened from 70 to 80 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW113.		
90									

Drilling Co./Driller: Cascade
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS764

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 70-80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/13/12
Surface Conditions: Concrete
Well Location N/S: 25.6' N of SE corner of building on 9th and Roy
Well Location E/W: 18.6' E of SE corner of building on 9th and Roy
Reviewed by: CCC
Date Completed: 12/13/12

BORING LOG | **B115**
 MW115

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete 1.5 feet thick at surface.	
								Boring cleared with a vactor truck to a depth of 9 feet below ground surface.	
10	3 7 7		80	1.4	B115-10	SM (FILL)		Damp, medium dense, silty SAND with gravel, brown, no solvent or hydrocarbon odor (30-55-15) (FILL).	
15									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 46 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS766

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35-45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/13/12
Surface Conditions: Concrete
Well Location N/S: 25.6' N of SE corner of building on 9th and Roy
Well Location E/W: 18.6' E of SE corner of building on 9th and Roy
Reviewed by: CCC
Date Completed: 12/13/12

BORING LOG | B115
MW115

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	15	15	60	0.8	B115-15	SM (FILL)		Moist, medium dense, silty SAND with gravel, brown, no solvent or hydrocarbon odor (30-55-15) (FILL).	
20	7	5	100	0.8	SP-SM (FILL)		Wet, loose, medium to fine SAND with silt and gravel, gray, no solvent or hydrocarbon odor (15-70-15) (FILL).		
25	5	5	100	0.2	B115-25	SM (FILL)		Wet, loose, silty SAND with gravel, gray, no solvent or hydrocarbon odor (25-65-10) (FILL).	
30									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 46 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS766

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35-45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/13/12
Surface Conditions: Concrete
Well Location N/S: 25.6' N of SE corner of building on 9th and Roy
Well Location E/W: 18.6' E of SE corner of building on 9th and Roy
Reviewed by: CCC
Date Completed: 12/13/12

BORING LOG | B115
MW115

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	7-10	10	100	0.8		SM		Wet, medium dense, silty fine SAND, gray, no solvent or hydrocarbon odor (40-60-0).	
	7-9	7	100	0.2		ML		Wet, medium dense, SILT with fine sand, gray, no solvent or hydrocarbon odor (80-20-0). Lacostrine deposits.	
35	3-9	3	100	0.8	B115-35	MH		Wet, medium dense, SILT with fine sand, plastic, gray, no solvent or hydrocarbon odor (80-20-0). Lacostrine deposits.	
	4-10	4	100	0.2		MH		Wet, medium dense, SILT with fine sand and trace gravel, plastic, gray, no solvent or hydrocarbon odor (80-15-5). Lacostrine deposits.	
40	12-15	12	80	0.8		SM		Wet, medium dense, silty fine SAND, gray, no solvent or hydrocarbon odor (40-60-0).	
	12-15	12	100	0.8		SP-SM		Wet, medium dense, medium to fine SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0).	

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 46 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS766

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35-45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/13/12
Surface Conditions: Concrete
Well Location N/S: 25.6' N of SE corner of building on 9th and Roy
Well Location E/W: 18.6' E of SE corner of building on 9th and Roy
Reviewed by: CCC
Date Completed: 12/13/12

BORING LOG | **B115**
 MW115

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45	23 50/6"	100	0.8	B115-45	SP-SM		Wet, very dense, medium to fine SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0).		
50							<p>Boring terminated at 46 feet bgs. Two-inch-diameter well installed to a depth of 45 feet bgs, screened from 35 to 45 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW115.</p>		
55									
60									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 46 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS766

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35-45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/7/12
Surface Conditions: Concrete
Well Location N/S: 18' E of SE corner of restaurant on 9th and Roy
Well Location E/W: 106' N of SE corner of restaurant on 9th and Roy
Reviewed by: CCC
Date Completed: 12/7/12

BORING LOG | **B116**
 MW116

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete 1.5' thick at surface.	
5								Borehole cleared to a depth of 9 feet bgs with a vactor truck.	
10	2 1 1		100	0.5		SM (FILL)		Damp, very loose, silty SAND with trace gravel, light brown, no solvent or hydrocarbon odor (40-55-5).	
15									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 46.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS769

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35-45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/7/12
Surface Conditions: Concrete
Well Location N/S: 18' E of SE corner of restaurant on 9th and Roy
Well Location E/W: 106' N of SE corner of restaurant on 9th and Roy
Reviewed by: CCC
Date Completed: 12/7/12

BORING LOG | **B116**
 MW116

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	2 1 1		100	0.0	B116-15	SM (FILL)		Wet, very loose, silty SAND with gravel, light brown, no solvent or hydrocarbon odor (35-55-10) (FILL).	
20	4 3 4		100	0.5		SP-SM (FILL)		Wet, loose, medium to fine SAND with silt and gravel, dark gray, no solvent or hydrocarbon odor (10-80-10) (FILL).	
25	2 4 3		100	1.1	B116-25	SP-SM (FILL)		Wet, loose, medium to fine SAND with silt and trace gravel, dark gray, no solvent or hydrocarbon odor (15-80-5) (FILL).	
30									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 46.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS769

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35-45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/7/12
Surface Conditions: Concrete
Well Location N/S: 18' E of SE corner of restaurant on 9th and Roy
Well Location E/W: 106' N of SE corner of restaurant on 9th and Roy
Reviewed by: CCC
Date Completed: 12/7/12

BORING LOG | **B116**
 MW116

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	12-15		100	0.5		SP-SM		Wet, medium dense, medium to fine SAND and silt and trace gravel, dark gray, no solvent or hydrocarbon odor (10-85-5).	
	14-15					ML		Damp, medium dense, SILT with fine sand and gravel, cohesive, gray, no solvent or hydrocarbon odor (50-40-10).	
	23-50/6"		100	1.1		SM-ML		Moist, very dense, SILT with fine sand, slightly plastic, gray, no solvent or hydrocarbon odor (80-20-0).	
35	12-23		100	0.5	B116-35	ML		Moist, very dense, SILT with fine sand, slightly plastic, gray, no solvent or hydrocarbon odor (80-20-0).	
	30-50/6"		100	1.1		ML		Wet, very dense, SILT with fine sand, slightly plastic, gray, no solvent or hydrocarbon odor (80-20-0).	
40	17-50/6"		100	0.5		ML		Wet, very dense, SILT with fine sand, slightly plastic, gray, no solvent or hydrocarbon odor (80-20-0).	
	17-50/6"		60	1.1		SM-ML		Wet, very dense, SILT with fine sand, gray, no solvent or hydrocarbon odor (60-40-0).	
45									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 46.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS769

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35-45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/7/12
Surface Conditions: Concrete
Well Location N/S: 18' E of SE corner of restaurant on 9th and Roy
Well Location E/W: 106' N of SE corner of restaurant on 9th and Roy
Reviewed by: CCC
Date Completed: 12/7/12

BORING LOG | **B116**
 MW116

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45	17 12 14		100		B116-45	MH		Wet, medium dense, SILT with fine sand, plastic, dark gray, no solvent or hydrocarbon odor (90-10-0).	
50								Boring terminated at 46.5 feet below ground surface. Two-inch-diameter well installed to a depth of 45 feet bgs, screened from 35 to 45 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW116.	
55									
60									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 46.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS769

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35-45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description	
<p>Concrete</p> <p>Bentonite Chips</p> <p>Sch. 40 PVC Casing</p>					0		Concrete	
					2		BROWN SILTY SAND (SM), moist, fine to medium, little to some fines, trace fine to coarse gravel, occasional metal fragments (FILL)	
			MW-319-6			4		Air knife & vac to 5 feet
	2.8				6		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, some fines, little fine to coarse subangular to subrounded gravel, appears loose	
	3.8				8			
	3.0		MW-319-10			10		
	2.3				12		GRAY SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, some fines, little fine to coarse subangular to subrounded gravel	
	4.1			168	14		GRAY SANDY SILT WITH GRAVEL (ML), wet, little fine to coarse sand, little fine to coarse subangular to subrounded gravel	
	5.7		MW-319-15			16		
	1.6				18		GRAYISH BROWN SANDY CLAY (CL), wet, little fine to coarse sand, few fine to coarse subangular to subrounded gravel, medium plasticity, few cobbles up to 4-inch diameter	
	1.1				20		BROWN SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, some fines, some fine to coarse subangular to rounded gravel (up to 3-inch diameter), appears very loose and sloppy	
	0.8		MW-319-20			22		
	0.5				24			
	0.9				26			
	1.2				28			
	0.5		MW-319-30			30		at 30.5 feet: color transitions to grayish brown, faint hydrocarbon-like odor
	2.0				32			
	1.9				34			
	1.1				36			
	1.7		MW-319-35			38		DARK BROWN SILT WITH SAND (ML), wet, little fine sand
2.2				40			GRAY SANDY SILT (ML), wet, some fine to medium sand, appears soft	
1.8			120				GRAY SILTY SAND (SM), wet, fine to coarse, some fines, appears loose	
0.8							GRAY SILT WITH SAND (ML), wet, little fine sand, appears soft	
0.3								
0.1		MW-319-40						
0.2								

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BLR-793

Total Drilled Depth: 85 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/18/19
 Drilled By: Holt Services
 Drill Method: Sonic

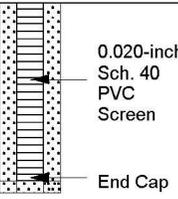


Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
<p>Bentonite Chips</p> <p>Sch. 40 PVC Casing</p> <p>#12-20 Silica Sand</p> <p>0.020-inch Sch. 40 PVC Screen</p>	2.2	MW-319-45	120		42		GRAY SANDY SILT (ML), wet, some fine sand
	1.7				44		GRAY CLAY (CL), wet, few fine to medium sand, medium plasticity
	0.8				46		GRAY SILT WITH SAND (ML), wet, few fine sand, interbedded with GRAY SILTY SAND (SM), wet, fine to medium, some fines (6- to 18-inch interbeds)
	0.2				48		
	0.0				50		
	0.1	MW-319-50	108		50		GRAY SILTY SAND (SM), wet, fine to medium, some fines, appears loose, easy to break apart
	0.0				52		at 50 feet: (driller adding water to control heave)
	0.1				54		
	0.0				56		at 55 feet: little fines
	0.2				58		
	0.1	MW-319-55	120		60		
	0.0				62		
	0.0				64		
	0.0				66		
	0.3				68		
0.2	MW-319-60	120		70		GRAY SANDY SILT (ML), wet, some fine sand	
0.0				72		GRAY SILTY SAND (SM), wet, fine, some fines	
0.0				74		GRAY SANDY SILT (ML), wet, some fine sand	
0.3				76		GRAY SANDY CLAY (CL), wet, some fine to medium sand, medium plasticity	
0.6				78		SANDY SILT WITH GRAVEL (ML), wet, little fine to coarse sand, little fine to coarse subangular to subrounded gravel	
0.4	MW-319-65	120		80		GRAY SILTY SAND WITH GRAVEL (SM), wet, medium to coarse, little fines, little fine to coarse subangular to subrounded gravel, occasional 4- to 6-inch silt lenses	
0.4				82			
0.2				84			
0.0				86			
0.0				88			
0.3	MW-319-70	120		90			
0.3				92			
0.6				94			
0.4				96			
0.4				98			
0.2	MW-319-75	120		100			
0.0				102			
0.0				104			
0.0				106			
0.0				108			
0.1	MW-319-80	120		110			
0.1				112			
0.0				114			
0.0				116			
0.1				118			

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BLR-793

Total Drilled Depth: 85 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/18/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
 <p>0.020-inch Sch. 40 PVC Screen End Cap</p>	NR	MW-319-85	60		82 84		GRAY SILTY SAND (SM), wet, fine to coarse, little fines, few fine subangular to subrounded gravel, appears very loose and unconsolidated
					86 88 90 92 94 96 98 100 102 104 106 108 110 112 114 116 118 120		<p>Bottom of Boring at 85 feet () Denotes PID reading taken in bag headspace, all other readings taken in open air immediately adjacent to soil, NR = Not Recorded</p> <p>Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand</p> <p>Total Well Depth: 84.7 feet Well Sump/Endcap: 84.5 to 84.7 feet Well Screen: 74.5 to 84.5 feet Well Riser: 0.3 to 74.5 feet Filter Pack: 73 to 85 feet Well Seal: 2 to 73 feet (hydrated bentonite chips) Surface Seal: 0 to 2 feet (concrete) Well Monument: Flush with grade 8-inch steel monument</p>

Project: Former American Linen Supply
Project Number: 1413.001.02.501B
Site Location: Seattle, WA
Logged By: R. McLaughlin
Notes: BLR-793

Total Drilled Depth: 85 feet
Diameter of Boring: 6 inches
Drill Date: 9/18/19
Drilled By: Holt Services
Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
<p>Concrete</p> <p>Sch. 40 PVC Casing</p> <p>Bentonite Chips</p>					0		Concrete
					2		GRAYISH BROWN SILTY SAND (SM), moist, fine to medium, little to some fines, trace fine to coarse subangular to subrounded gravel, loose (FILL)
					4		Air knife & vac to 5 feet
	(7.7) (7.1)		48		6		GRAYISH BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, some fines, little fine to coarse subangular to subrounded gravel (FILL)
	(6.2) (4.3)				8		GRAYISH BROWN SANDY SILT WITH GRAVEL (ML), moist, some fine to coarse sand, little subangular to subrounded fine gravel
	(2.9)				10		GRAYISH BROWN SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, some fines, little subangular to subrounded fine to coarse gravel, fines sticky
	3.1				12		at 13.5 feet: color transitions to gray
	0.5		120		14		GRAY SILTY SAND (SM), wet, fine to medium, little fines, trace subangular to subrounded fine gravel, loose
	1.1				16		at 18 feet: fine to coarse sand
	2.3				18		BROWN SILT WITH SAND (ML), wet, little fine sand, faint swamp-like odor
	3.0	(5.6)			20		GRAY CLAY (CL), wet, little fine to medium sand, medium plasticity
		(2.6)			22		GRAYISH BROWN SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, some fines, little fine to coarse subangular to rounded gravel, material is very loose and unconsolidated
		(3.8)			24		from 20 to 30 feet: 2 feet of sample captured in core bag, remaining 8 feet fell out of core barrel. Similar in appearance to captured 28-30 foot section
	(4.3)				26		GRAY SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, some fine to coarse subangular to subrounded gravel, few cobbles up to 4-inch diameter
		(1.4)		144	28		GRAY SANDY CLAY (CL), wet, some fine to coarse sand, few fine subrounded to rounded gravel, medium plasticity at 33 feet: sample collected for physical analysis
		(1.4) (1.5)			30		GRAY SILTY SAND (SM), wet, fine to coarse, trace fine to coarse subangular to subrounded gravel, interbedded with GRAY SILT WITH SAND (ML), wet, little fine to medium sand, trace fine subrounded gravel (4-6 inch interbeds)
		(2.1)			32		GRAY SILTY SAND (SM), wet, fine to coarse, trace fine to coarse subangular to subrounded gravel, interbedded with GRAY SILT WITH SAND (ML), wet, little fine to medium sand, trace fine subrounded gravel (4-6 inch interbeds)
		(1.7)			34		GRAY SILTY SAND (SM), wet, fine to coarse, trace fine to coarse subangular to subrounded gravel, interbedded with GRAY SILT WITH SAND (ML), wet, little fine to medium sand, trace fine subrounded gravel (4-6 inch interbeds)
		(0.6)			36		GRAY SILTY SAND (SM), wet, fine to coarse, trace fine to coarse subangular to subrounded gravel, interbedded with GRAY SILT WITH SAND (ML), wet, little fine to medium sand, trace fine subrounded gravel (4-6 inch interbeds)
		(1.8)			38		GRAY SILTY SAND (SM), wet, fine to coarse, trace fine to coarse subangular to subrounded gravel, interbedded with GRAY SILT WITH SAND (ML), wet, little fine to medium sand, trace fine subrounded gravel (4-6 inch interbeds)
	(1.7)			40		GRAY SILTY SAND (SM), wet, fine to coarse, trace fine to coarse subangular to subrounded gravel, interbedded with GRAY SILT WITH SAND (ML), wet, little fine to medium sand, trace fine subrounded gravel (4-6 inch interbeds)	
	0.0						GRAY SILT WITH SAND (ML), wet, little fine to medium sand, trace fine to coarse subangular to subrounded gravel

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BMF-591

Total Drilled Depth: 65 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/17/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
	0.1						at 40 feet: 5-inch diameter cobble, (driller adding water to control heave)
	0.0				42		
	0.0				44		GRAY SANDY CLAY WITH GRAVEL (CL), wet, little fine to medium sand, little fine subangular to rounded gravel
	0.1				46		GRAY SILT WITH SAND (ML), wet, little fine to medium sand
	0.0				48		GRAY SILTY SAND (SM), wet, fine to medium, some fines, trace gravel
	0.0				50		GRAY SILT WITH SAND (ML), wet, little fine to medium sand, occasional cobbles up to 4-inch diameter
	0.2			228	50		
	0.1						GRAY SAND WITH SILT (SP), wet, fine to medium, few fines, trace fine subangular to subrounded gravel, homogeneous
	0.4					52	
	0.2					54	
	0.3					56	
	0.0					58	
	0.1					60	
	0.3			60		62	
	0.1					64	
	1.6					66	
					68		Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand
					70		Total Well Depth: 64.8 feet Well Sump/Endcap: 64.7 to 64.8 feet Well Screen: 54.7 to 64.7 feet Well Riser: 0.3 to 54.7 feet Filter Pack: 53 to 65 feet Well Seal: 2 to 53 feet (hydrated bentonite chips) Surface Seal: 0 to 2 feet (concrete) Well Monument: Flush with grade 8-inch steel monument
					72		
					74		
					76		
					78		
					80		

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BMF-591

Total Drilled Depth: 65 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/17/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
Concrete					0		Concrete
					2		BROWN SILTY SAND (SM), moist, fine to medium, appears loose
					4		Air knife & vac to 5 feet
			24		6		
					8		
Bentonite Chips	0.0	MW-323-10			10		BROWNISH GRAY SANDY SILT (ML), moist, some fine to medium sand
	0.0	MW-323-15	72		12		
	0.0				14		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, little fines, little fine to coarse subangular to subrounded gravel, appears loose, interbedded with BROWNISH GRAY SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, some fines, little fine to coarse subangular to subrounded gravel, appears more consolidated, fines "sticky" (6- to 24-inch interbeds)
	0.0				16		
	0.0				18		
Sch. 40 PVC Casing	0.0	MW-323-20			20		GRAY SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, little fines, little fine to coarse subangular to subrounded gravel, appears loose
	0.3				22		
	0.2				24		
	0.0	MW-323-25	96		26		
	0.0				28		
	0.0				30		at 29 feet: gravel coarsens
	0.0	MW-323-30			32		DARK BROWN SILT WITH SAND (ML), wet, little fine sand, trace organics, swamp-like odor
	0.0				34		GRAY CLAY (CL), wet, few fine sand, medium plasticity, occasional 0.5-inch silt lenses from 32.5 to 33.5 feet: intact core sample collected for physical analysis
	0.0	MW-323-35	120		36		GRAY SILTY SAND (SM), wet, fine to medium, some fines
	0.0				38		GRAY SILT (ML), wet, few fine sand
	0.0				40		GRAY SANDY CLAY (CL), wet, little fine to medium sand, trace fine subangular to subrounded gravel, medium plasticity
	0.0	MW-323-40			40		GRAY SILT (ML), wet, few fine sand

Project: Former American Linen Supply	Total Drilled Depth: 110.2 feet
Project Number: 1413.001.02.501B	Diameter of Boring: 6 inches
Site Location: Seattle, WA	Drill Date: 9/28/19 - 9/29/19
Logged By: R. McLaughlin	Drilled By: Holt Services
Notes: BLR-799	Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
	0.0		36		42		
	0.0				42		
	0.0				42		
	0.0		12		44		GRAY SILTY SAND (SM), wet, fine to medium, some fines
	0.0	MW-323-45			44		GRAY SILT WITH SAND (ML), wet, little fine sand from 43 to 44 feet: ring sampler driven prior to core barrel, sample collected for physical analysis
	0.0				46		GRAY SILTY SAND (SM), wet, fine to medium, some fines, appears loose at 47 feet: little fines
	0.0		84		48		at 48 feet: some fines
	0.0	MW-323-50			50		at 50 feet: little fines, (driller adding water to control heave)
	1.2				52		
	0.8				54		
	2.1	MW-323-55	120		56		
	1.7				58		
	1.0				60		
	2.3				62		
	8.4				64		at 65 feet: some fines, sand fining with depth
	2.6	MW-323-60 MWV-2010-60			66		
	1.6				68		
	4.2				70		
	6.5				72		GRAY SAND WITH SILT (SP), wet, medium to coarse, few fines, trace subangular to subrounded gravel
	3.8				74		
5.7	MW-323-65	108		76			
4.3				78			
8.8				80			
(22.9)							
(27.7)							
(43.2)	MW-323-70						
(44.0)							
3.5							
9.8							
4.3							
4.3	MW-323-75	120					
9.8							
2.2							
4.1							
1.1							
0.6							
1.2	MW-323-80						

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BLR-799

Total Drilled Depth: 110.2 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/28/19 - 9/29/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
	0.0						GRAY SILTY SAND (GM), wet, fine to coarse, little fines, trace fine to coarse subangular to subrounded gravel
	0.0				82		
	0.3						
	1.4				84		
	1.7	MW-323-85		108			
	0.5						
	1.4				86		
	0.2						
	0.0	MW-323-91				90	
	0.0						
0.0					92		at 92 feet: fine to medium sand
0.0							
0.0					94		
0.2	MW-323-95		108				at 95 feet: fine to coarse sand
0.8							
1.3					96		
1.2							
0.8	MW-323-99				98		at 99 feet: medium to coarse sand
0.0							
0.0					100		from 100 to 101 feet: ring sampler driven prior to core barrel, sample collected for physical analysis
0.0							
0.0					102		
0.0							
0.0					104		
0.0	MW-323-105		120				
0.0							
0.0					106		
0.0							
0.0					108		GRAY SILTY GRAVEL WITH SAND (GM), wet, fine to coarse, subangular to rounded, some fines, little medium to coarse sand, appears very loose
0.0							at 109 feet: 6-inch lens of gray silty sand
0.0	MW-323-110				110		GRAY GRAVEL WITH SILT AND SAND (GP), wet, fine, subangular to rounded, some medium to coarse sand, few fines, appears very loose
0.0							
0.0					112		Bottom of Boring at 100.2 feet () Denotes PID reading taken in bag headspace, all other readings taken in open air immediately adjacent to soil
0.0					114		Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand
0.0					116		Total Well Depth: 110.2 feet Well Sump/Endcap: 110 to 110.2 feet Well Screen: 100 to 110 feet Well Riser: 0.3 to 100 feet Filter Pack: 98 to 100 feet Well Seal: 1.5 to 98 feet (hydrated bentonite chips) Surface Seal: 0 to 1.5 feet (concrete)
0.0					118		
0.0					120		

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BLR-799

Total Drilled Depth: 110.2 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/28/19 - 9/29/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
					122		Well Monument: Flush with grade 8-inch steel monument
					124		
					126		
					128		
					130		
					132		
					134		
					136		
					138		
					140		
					142		
					144		
					146		
					148		
					150		
					152		
					154		
					156		
					158		
					160		

Project: Former American Linen Supply	Total Drilled Depth: 110.2 feet
Project Number: 1413.001.02.501B	Diameter of Boring: 6 inches
Site Location: Seattle, WA	Drill Date: 9/28/19 - 9/29/19
Logged By: R. McLaughlin	Drilled By: Holt Services
Notes: BLR-799	Drill Method: Sonic



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/14/12
Surface Conditions: concrete
Well Location N/S: 10.8' S of NW corner Seattle Ducati building
Well Location E/W: 14' W of NW corner of Seattle Ducati building
Reviewed by: CCC
Date Completed: 12/14/12

BORING LOG | **B108**
 MW108

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								6" Concrete surfacing.	
								Cleared borehole with a vactor truck to a depth of 9 feet below ground surface.	
10	5 6 8		50	3.4		SM (FILL)		Damp, medium dense, silty SAND with Fill debris, black, no solvent or hydrocarbon odor. (FILL).	
15									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA LAR
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BHS765

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/14/12
Surface Conditions: concrete
Well Location N/S: 10.8' S of NW corner Seattle Ducati building
Well Location E/W: 14' W of NW corner of Seattle Ducati building
Reviewed by: CCC
Date Completed: 12/14/12

BORING LOG | B108 MW108

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	3-5	3	60	2.1	B108-15	SM		Wet, loose, silty SAND with gravel and wood waste, dark gray, no solvent or hydrocarbon odor (35-55-10) (FILL).	
20	4-5	4	80	0.3		SM		Wet, loose, silty SAND with gravel, gray, no solvent or hydrocarbon odor (40-50-10).	
25	7-9	7	80	0.3	B108-25	SM-ML		Moist, medium dense, silty SAND with gravel, gray, no solvent or hydrocarbon odor (40-50-10).	
30									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA LAR
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BHS765

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/14/12
Surface Conditions: concrete
Well Location N/S: 10.8' S of NW corner Seattle Ducati building
Well Location E/W: 14' W of NW corner of Seattle Ducati building
Reviewed by: CCC
Date Completed: 12/14/12

BORING LOG | **B108**
 MW108

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	12-14-17		100	0.0		SM		Wet, dense, silty fine SAND, gray, no solvent or hydrocarbon odor (40-60-0). Lacostrine sediments.	
	17-20-23		100	0.3		SM		Wet, dense, silty fine SAND with gravel, gray, no solvent or hydrocarbon odor (40-60-0). Lacostrine sediments.	
35	50/6"		100	0.0	B108-35	MH		Wet, very dense, SILT with fine sand, plastic, gray, no solvent or hydrocarbon odor (80-20-0).	
	20-50/6"		90	0.0		SP-SM		Wet, very dense, medium to fine SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0).	
40	16-50/6"		50	0.9		SP-SM		Wet, very dense, medium to fine SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0).	
	50/6"		40	0.3		SM		Wet, very dense, silty SAND, brown, no solvent or hydrocarbon odor (40-60-0).	
45									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA LAR
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BHS765

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/14/12
Surface Conditions: concrete
Well Location N/S: 10.8' S of NW corner Seattle Ducati building
Well Location E/W: 14' W of NW corner of Seattle Ducati building
Reviewed by: CCC
Date Completed: 12/14/12

BORING LOG | **B108**
 MW108

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 15 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45	50/6"	50	50	0.0	B108-45	SM		Wet, very dense, silty SAND, brown, no solvent or hydrocarbon odor (40-60-0).	
	50/6"	50	50	0.0		SM		Wet, very dense, silty SAND, brown, no solvent or hydrocarbon odor (40-60-0).	
50	50/6"	50	50	0.0	B108-50	SM		Damp, very dense, silty SAND, cohesive, brown, no solvent or hydrocarbon odor (40-60-0).	
								Boring terminated at 50.5 feet bgs. Two-inch-diameter well installed to a depth of 50 feet bgs, screened from 40 to 50 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW108.	
55									
60									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA LAR
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 50.5 feet bgs
Total Well Depth: 50 feet bgs
State Well ID No.: BHS765

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 40-50 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/04/12
Surface Conditions: Concrete
Well Location N/S: 138.5' N of SE corner of Seattle City Light Building
Well Location E/W: 7.0' E of SE corner of Seattle City Light Building
Reviewed by: CCC
Date Completed: 12/04/12

BORING LOG | **B109**
 MW109

Site Address: 700 Dexter Avenue
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								6" concrete surfacing.	
5	2 2 3		100	0.0	B109-05	SM (FILL)		Moist, loose, silty SAND with gravel, fill material, gray, no solvent or hydrocarbon odor (30-60-10) (FILL).	
10	1 1 1		100	0.0		SM (FILL)		Moist, very loose, silty SAND with gravel, gray to black, slight hydrocarbon odor (30-60-10) (FILL).	
15									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 45.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS 771

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35 to 45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/04/12
Surface Conditions: Concrete
Well Location N/S: 138.5' N of SE corner of Seattle City Light Building
Well Location E/W: 7.0' E of SE corner of Seattle City Light Building
Reviewed by: CCC
Date Completed: 12/04/12

BORING LOG | B109
MW109

Site Address: 700 Dexter Avenue
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	2-3	3	100	6.9	B109-15	SM		Moist, loose, silty medium to fine SAND with gravel, gray, moderate hydrocarbon odor (20-75-5).	
20	2-3	3	100	0.5		SM		Wet, loose, silty SAND with gravel, gray, sheen on sample, no solvent or hydrocarbon odor (30-55-15).	
25	3-5	3	100	0.0	B109-25	SM		Wet, loose, silty medium to fine SAND with gravel, gray, no solvent or hydrocarbon odor (30-60-10).	
30									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 45.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS 771

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35 to 45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:

 Page: **2 of 4**



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/04/12
Surface Conditions: Concrete
Well Location N/S: 138.5' N of SE corner of Seattle City Light Building
Well Location E/W: 7.0' E of SE corner of Seattle City Light Building
Reviewed by: CCC
Date Completed: 12/04/12

BORING LOG | B109 MW109

Site Address: 700 Dexter Avenue
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	4-5	5	100	0.0		MH		Damp, loose, organic sandy SILT with plant material, dark brown, no solvent or hydrocarbon odor (60-40-0).	
	20-50/6"	20	100	0.5		SM		Damp, very dense, silty medium to fine SAND with gravel, gray, no solvent or hydrocarbon odor (30-60-10).	
35	7-9	20	100	0.0	B109-35	SP-SM		Wet, medium dense, medium to fine SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0).	
	15-50/6"	15	60	0.0		SP-SM		Wet, very dense, medium to fine SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0).	
40	50/6"	50/6"	30	0.0		SP-SM		Wet, very dense, medium to fine SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0).	
	14-50/6"	14	60	30.8		SP-SM		Wet, very dense, medium to fine SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0).	
45									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 45.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS 771

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35 to 45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/04/12
Surface Conditions: Concrete
Well Location N/S: 138.5' N of SE corner of Seattle City Light Building
Well Location E/W: 7.0' E of SE corner of Seattle City Light Building
Reviewed by: CCC
Date Completed: 12/04/12

BORING LOG | **B109**
 MW109

Site Address: 700 Dexter Avenue
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45	X	50/6"	30	34.3	B109-45	SP-SM		Wet, very dense, medium to fine SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0). Boring terminated at 45.5 feet bgs. Two-inch-diameter well installed to a depth of 45 feet bgs, screened from 35 to 45 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW109.	
50									
55									
60									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 45.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS 771

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35 to 45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/04/12
Surface Conditions: Concrete
Well Location N/S: 10.9' N of SE corner of Seattle City Light building
Well Location E/W: 7.6' E of SE corner of Seattle City Light building
Reviewed by: CCC
Date Completed: 12/04/12

BORING LOG | **B110**
 MW110

Site Address: 700 Dexter Avenue
 Seattle, Washington

Water Depth At Time of Drilling 25 feet bgs
Water Depth After Completion 20.24 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								5" Concrete surfacing.	
5	2 2 2		80	1.6	B110-05	SM (FILL)		Damp, very loose, silty SAND with trace gravel, brown, no solvent or hydrocarbon odor (25-70-5) (FILL).	
10	3 3 3		90	0.5		SM (FILL)		Damp, loose, silty SAND with gravel, brown, no solvent or hydrocarbon odor (25-65-10) (FILL).	
15									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 45.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS772

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35 to 45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:

 Page: | **1 of 4**



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/04/12
Surface Conditions: Concrete
Well Location N/S: 10.9' N of SE corner of Seattle City Light building
Well Location E/W: 7.6' E of SE corner of Seattle City Light building
Reviewed by: CCC
Date Completed: 12/04/12

BORING LOG | **B110**
 MW110

Site Address: 700 Dexter Avenue
 Seattle, Washington

Water Depth At Time of Drilling 25 feet bgs
Water Depth After Completion 20.24 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	5-5	5	100	0.0	B110-15	SM (FILL)		Damp, loose, silty SAND with trace gravel, brown, no solvent or hydrocarbon odor (25-70-5) (FILL).	
20	9-11	9	90	3.3		SM (FILL)		Damp, medium dense, silty SAND with gravel, gray, no solvent or hydrocarbon odor (30-60-10) (FILL).	
25	7-10	7	100	1.1	B110-25	SM-ML		Wet, very stiff, fine sandy SILT with gravel, wood waste, and plant material, no solvent or hydrocarbon odor (45-40-15) (FILL).	
30									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 45.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS772

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35 to 45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/04/12
Surface Conditions: Concrete
Well Location N/S: 10.9' N of SE corner of Seattle City Light building
Well Location E/W: 7.6' E of SE corner of Seattle City Light building
Reviewed by: CCC
Date Completed: 12/04/12

BORING LOG | **B110**
 MW110

Site Address: 700 Dexter Avenue
 Seattle, Washington

Water Depth At Time of Drilling 25 feet bgs
Water Depth After Completion 20.24 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	8-12-15		100	0.5		SP-SM		Wet, medium dense, medium to fine SAND with silt, gray, no solvent or hydrocarbon odor (10-90-0).	
	12-15-15		100	1.1		SP-SM SM		Wet, medium dense, medium to fine SAND with silt, brown, no solvent or hydrocarbon odor (10-90-0). Wet, medium dense, silty medium to fine SAND, brown, no solvent or hydrocarbon odor (25-75-0).	
35	50/6"		30	9.9	B110-35	SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no solvent or hydrocarbon odor (35-55-10).	
	50/6"		30	0.5		SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no solvent or hydrocarbon odor (35-55-10).	
40	50/6"		30	1.1		ML		Damp, hard, silt with fine SAND and trace gravel, cohesive, gray, no solvent or hydrocarbon odor (60-35-5).	
	50/6"		30	1.1		SM-ML		Damp, very dense, silty fine SAND with gravel, gray, no solvent or hydrocarbon odor (45-45-10).	
45									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 45.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS772

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35 to 45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/04/12
Surface Conditions: Concrete
Well Location N/S: 10.9' N of SE corner of Seattle City Light building
Well Location E/W: 7.6' E of SE corner of Seattle City Light building
Reviewed by: CCC
Date Completed: 12/04/12

BORING LOG | **B110**
 MW110

Site Address: 700 Dexter Avenue
 Seattle, Washington

Water Depth At Time of Drilling 25 feet bgs
Water Depth After Completion 20.24 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45	X	50/6"	30	1.1	B110-45	SM		Damp, very dense, silty fine SAND with gravel, cohesive, gray, no solvent or hydrocarbon odor (35-55-10). Boring terminated at 45.5 feet bgs. Two-inch-diameter well installed to a depth of 45 feet bgs, screened from 35 to 45 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW110.	
50									
55									
60									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 300 lbs
Total Boring Depth: 45.5 feet bgs
Total Well Depth: 45 feet bgs
State Well ID No.: BHS772

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 35 to 45 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/05/12
Surface Conditions: Concrete
Well Location N/S: 92.5' N of SE corner of SCL building
Well Location E/W: 7.5' E of SE corner of SCL building
Reviewed by: CCC
Date Completed: 12/05/12

BORING LOG | **B111**
 MW111

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete surfacing.	
5	1 2 3		90	0.8		SM (FILL)		Moist, loose, silty medium to fine SAND with gravel, gray, no solvent or hydrocarbon odor (25-60-15) (FILL).	
10	1 1 1		80	0.2	B111-10	SM (FILL)		Damp, very loose, silty medium to fine SAND with gravel, wood waste, dark brown, no solvent or hydrocarbon odor (25-60-15) (FILL).	
15									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Split-spoon
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80.5 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS770

Well/Auger Diameter: 2/8.25/10.25 inches
Well Screened Interval: 70 to 80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite chips
Monument Type: Flush mount

Notes/Comments:
 Conductor casing set at 50 feet bgs.



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/05/12
Surface Conditions: Concrete
Well Location N/S: 92.5' N of SE corner of SCL building
Well Location E/W: 7.5' E of SE corner of SCL building
Reviewed by: CCC
Date Completed: 12/05/12

BORING LOG | **B111**
 MW111

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	3-4	3	100	1.8		SM		Damp, loose, silty fine to medium SAND, gray, slight hydrocarbon odor (40-60-0).	
20	4-4	4	100	1.3	B111-20	SM-ML		Wet, medium stiff, fine sandy SILT, slightly plastic, gray, no solvent or hydrocarbon odor (55-45-0).	
25	4-7	4	100	0.8		SM		Wet, medium dense, silty medium to fine SAND with trace gravel, gray, no solvent or hydrocarbon odor (40-55-5).	
30									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Split-spoon
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80.5 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS770

Well/Auger Diameter: 2/8.25/10.25 inches
Well Screened Interval: 70 to 80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite chips
Monument Type: Flush mount

Notes/Comments:
 Conductor casing set at 50 feet bgs.



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/05/12
Surface Conditions: Concrete
Well Location N/S: 92.5' N of SE corner of SCL building
Well Location E/W: 7.5' E of SE corner of SCL building
Reviewed by: CCC
Date Completed: 12/05/12

BORING LOG | **B111**
 MW111

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	7-10	10			B111-30	SP-SM		Wet, medium dense, fine to medium SAND with silt and trace gravel, gray, no solvent or hydrocarbon odor (15-80-5).	
	11-13	60	0.2			SP-SM		Wet, medium dense, medium to fine SAND with silt, dark gray, no solvent or hydrocarbon odor (15-85-0).	
35	6-7	80	1.8			SP-SM		Wet, medium dense, fine to medium SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0).	
	7-50/6"	80	17.0		B111-38	SP-SM		Wet, very dense, fine to coarse SAND with silt and trace gravel, dark gray, no solvent or hydrocarbon odor (10-85-5).	
40	50/6"	100	3.5			SP-SM		Wet, very dense, fine to medium SAND with silt, dark gray, no solvent or hydrocarbon odor (10-90-0). Heaving sands.	
	12-14		57.8			SP-SM		Wet, medium dense, fine to medium SAND with silt and trace gravel, gray, no solvent or hydrocarbon odor (10-85-5).	
	14-16					SM		Damp, medium dense, silty SAND with trace gravel, gray, no solvent or hydrocarbon odor (25-70-5).	
45									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Split-spoon
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80.5 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS770

Well/Auger Diameter: 2/8.25/10.25 inches
Well Screened Interval: 70 to 80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite chips
Monument Type: Flush mount

Notes/Comments:
 Conductor casing set at 50 feet bgs.



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/05/12
Surface Conditions: Concrete
Well Location N/S: 92.5' N of SE corner of SCL building
Well Location E/W: 7.5' E of SE corner of SCL building
Reviewed by: CCC
Date Completed: 12/05/12

BORING LOG | **B111**
 MW111

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45	50/6"	20	60	32.8		SP-SM		Wet, very dense, fine to medium SAND with silt and trace gravel, gray, no solvent or hydrocarbon odor (10-85-5).	
	50/6"	25	60	36.0		SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no solvent or hydrocarbon odor (40-50-10).	
50	50/6"	50/6"	30	8.9	B111-50	ML		Damp, hard, SILT with fine sand and gravel, cohesive, gray, no solvent or hydrocarbon odor (50-35-15).	
55	50/6"	50/6"	30	8.4		ML		Damp, hard, SILT with sand and gravel, cohesive, gray, no solvent or hydrocarbon odor (50-35-15).	
60									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Split-spoon
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80.5 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS770

Well/Auger Diameter: 2/8.25/10.25 inches
Well Screened Interval: 70 to 80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite chips
Monument Type: Flush mount

Notes/Comments:
 Conductor casing set at 50 feet bgs.



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/05/12
Surface Conditions: Concrete
Well Location N/S: 92.5' N of SE corner of SCL building
Well Location E/W: 7.5' E of SE corner of SCL building
Reviewed by: CCC
Date Completed: 12/05/12

BORING LOG | **B111**
 MW111

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
60	50/6"	30	0.8	B111-60	GM		Wet, very dense, silty sandy GRAVEL, gray, no solvent or hydrocarbon odor (25-25-50).		
65	50/6"	30	0.2		GM		Wet, very dense, silty sandy GRAVEL, gray, no solvent or hydrocarbon odor (30-25-45).		
70	50/6"	30	2.9	B111-70	GM		Wet, very dense, silty sandy GRAVEL, gray, no solvent or hydrocarbon odor (30-20-50).		
	50/6"	30	0.2		GM		Wet, very dense, silty sandy GRAVEL, gray, no solvent or hydrocarbon odor (30-20-50).		
75									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Split-spoon
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80.5 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS770

Well/Auger Diameter: 2/8.25/10.25 inches
Well Screened Interval: 70 to 80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite chips
Monument Type: Flush mount

Notes/Comments:
 Conductor casing set at 50 feet bgs.



Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/05/12
Surface Conditions: Concrete
Well Location N/S: 92.5' N of SE corner of SCL building
Well Location E/W: 7.5' E of SE corner of SCL building
Reviewed by: CCC
Date Completed: 12/05/12

BORING LOG | **B111**
 MW111

Site Address: 700 Dexter Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
75	50/5"		100	1.9		GM		Wet, very dense, silty sandy GRAVEL, gray, no solvent or hydrocarbon odor (30-20-50).	
	50/6"		100	0.4		GM		Wet, very dense, silty sandy GRAVEL, gray, no solvent or hydrocarbon odor (30-20-50).	
80	50/6"		30	3.5	B111-80	GM		Wet, very dense, silty sandy GRAVEL, gray, no solvent or hydrocarbon odor (30-20-50).	
								Boring terminated at 80.5 feet bgs. Two-inch-diameter well installed to a depth of 80 feet bgs, screened from 70 to 80 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW111.	
85									
90									

Drilling Co./Driller: Cascade/Curtis
Drilling Equipment: HSA
Sampler Type: Split-spoon
Hammer Type/Weight: 300 lbs
Total Boring Depth: 80.5 feet bgs
Total Well Depth: 80 feet bgs
State Well ID No.: BHS770

Well/Auger Diameter: 2/8.25/10.25 inches
Well Screened Interval: 70 to 80 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: #2/12 silica sand
Surface Seal: Concrete
Annular Seal: Bentonite chips
Monument Type: Flush mount

Notes/Comments:
 Conductor casing set at 50 feet bgs.



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete 8 inches thick.	
5								Cleared with vent truck????	
10		8 8 8	100	2.5	B122-10	ML		Damp, loose, SILT with sand and gravel and brick debris, dark gray to black, moderate hydrocarbon odor (50-40-10) (FILL).	
15									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	5 6 8		100	4.0	B122-15	SM		Moist to wet, silty SAND with gravel, gray, slight hydrocarbon odor (40-50-10).	
20	3 5 9		100	0.0	B122-20	SM		Wet, loose, silty SAND with gravel, gray, no hydrocarbon odor (40-50-10).	
25	5 8 10		80	0.0	B122-25-20131217 B122-25	SP		Wet, loose, medium to fine SAND with silt and gravel, gray, slight hydrocarbon odor (10-85-5).	
30									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	17 50/6	100	0.0	B122-30	ML			Damp, very dense, SILT with fine sand, gray, no hydrocarbon odor (60-40-0).	
35	14 50/6	100	0.0	B122-35	ML			Moist to wet, very dense, SILT with fine sand, gray, no hydrocarbon odor (55-45-0).	
40	19 50/6	100	0.0	B122-40-20131217 B122-40	ML			Wet, very dense, SILT with fine sand, gray, no hydrocarbon odor (60-40-0).	
45									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45		50/6	100	0.0	B122-45	SP		Wet, very dense, medium to fine SAND with silt, gray, no hydrocarbon odor (10-90-0).	
50		50/6	100	0.0	B122-50	ML		Damp, very dense, SILT with fine sand and gravel, cohesive, gray, no hydrocarbon odor (65-30-5).	
55		50/6	100	0.0		SM		Damp to moist, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (45-40-15). Sample is warm to the touch.	
60									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
60	50/6	100	0.0	B122-60	SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-45-15).		
65	50/6	70	0.0		SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-45-15).		
70	50/6	90	0.0	B122-70	SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-45-15).		
75									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
75		50/6	80	0.0		SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-50-10).	
80		50/6	100	0.0	B122-80	SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-50-10).	
85		50/6	100	0.0	B122-85-20131217	SP		Driller reports change in drilling conditions. Easier conditions. Wet, very dense, medium to fine SAND with silt and gravel, gray, no hydrocarbon odor (10-80-10).	
90									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
90								Lost sampler.	
95								Had to overdrill sampler.	
100		50/6	100	0.0	B122-100	SP		Wet, very dense, coarse to medium SAND and silt with gravel, gray, no hydrocarbon odor (5-8-15). Heaving conditions. Sampler stuck in Auger, sand locked. Boring advanced to 115 and set well without collecting soil samples.	
105									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
105								<p>Heaving conditions. Sampler stuck in Auger, sand locked. Boring advanced to 115 and set well without collecting soil samples.</p>	
110									
115								<p>Boring terminated at 115 feet below ground surface (bgs). Two-inch diameter well installed to a depth of 115 feet bgs, screened from 105 to 115 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW122.</p>	
120									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 128' S of NW corner of city light building
Well Location E/W: 18' W of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | B121

Site Address: 700 Dexter Avenue North
Seattle, WA

Water Depth At Time of Drilling -- feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete cored prior to drilling. Concrete 4 inches thick.	
5	8 16 20		100	0.0	B121-05	SM		Damp, medium dense, silty SAND with gravel, brown, (30-60-10) (FILL).	
10	6 7 8		100	0.0		SM		Damp, loose, silty SAND with gravel and miscellaneous debris, black, no hydrocarbon odor (FILL).	
15									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 26.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: BID 016

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/16/13
Surface Conditions: Concrete
Well Location N/S: 128' S of NW corner of city light building
Well Location E/W: 18' W of NW corner of city light building
Reviewed by: CCC
Date Completed: 12/16/13

BORING LOG | B121

Site Address: 700 Dexter Avenue North
Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	3 2 1		100	0.0	B121-15	ML		Wet, loose, SILT with sand and gravel, gray, wood ash, no hydrocarbon odor (50-40-10).	
20	0 2 4		100	0.0		ML		Wet, dense, SILT with sand and gravel, gray, no hydrocarbon odor (possible lake sediments) (50-40-10).	
25	1 1 3		100	0.0	B121-25	ML		Moist, loose, SILT with fine sand and organics, gray, no hydrocarbon odor (70-30-0).	
30								Boring terminated at 26.5 feet below ground surface (bgs). Two-inch diameter well installed to a depth of 25 feet bgs, screened from 15 to 25 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW121.	

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 26.5 feet bgs
Total Well Depth: 25 feet bgs
State Well ID No.: BID 016

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete 8 inches thick.	
5								Cleared with vent truck????	
10		8 8 8	100	2.5	B122-10	ML		Damp, loose, SILT with sand and gravel and brick debris, dark gray to black, moderate hydrocarbon odor (50-40-10) (FILL).	
15									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15	5 6 8		100	4.0	B122-15	SM		Moist to wet, silty SAND with gravel, gray, slight hydrocarbon odor (40-50-10).	
20	3 5 9		100	0.0	B122-20	SM		Wet, loose, silty SAND with gravel, gray, no hydrocarbon odor (40-50-10).	
25	5 8 10		80	0.0	B122-25-20131217 B122-25	SP		Wet, loose, medium to fine SAND with silt and gravel, gray, slight hydrocarbon odor (10-85-5).	
30									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	17 50/6	100	0.0	B122-30	ML			Damp, very dense, SILT with fine sand, gray, no hydrocarbon odor (60-40-0).	
35	14 50/6	100	0.0	B122-35	ML			Moist to wet, very dense, SILT with fine sand, gray, no hydrocarbon odor (55-45-0).	
40	19 50/6	100	0.0	B122-40-20131217 B122-40	ML			Wet, very dense, SILT with fine sand, gray, no hydrocarbon odor (60-40-0).	
45									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45		50/6	100	0.0	B122-45	SP		Wet, very dense, medium to fine SAND with silt, gray, no hydrocarbon odor (10-90-0).	
50		50/6	100	0.0	B122-50	ML		Damp, very dense, SILT with fine sand and gravel, cohesive, gray, no hydrocarbon odor (65-30-5).	
55		50/6	100	0.0		SM		Damp to moist, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (45-40-15). Sample is warm to the touch.	
60									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
60	50/6	100	0.0	B122-60	SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-45-15).		
65	50/6	70	0.0		SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-45-15).		
70	50/6	90	0.0	B122-70	SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-45-15).		
75									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
75		50/6	80	0.0		SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-50-10).	
80		50/6	100	0.0	B122-80	SM		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40-50-10).	
85		50/6	100	0.0	B122-85-20131217	SP		Driller reports change in drilling conditions. Easier conditions. Wet, very dense, medium to fine SAND with silt and gravel, gray, no hydrocarbon odor (10-80-10).	
90									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
90								Lost sampler.	
95								Had to overdrill sampler.	
100		50/6	100	0.0	B122-100	SP		Wet, very dense, coarse to medium SAND and silt with gravel, gray, no hydrocarbon odor (5-8-15). Heaving conditions. Sampler stuck in Auger, sand locked. Boring advanced to 115 and set well without collecting soil samples.	
105									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



Project: 700 Dexter
Project Number: 0797-001-02
Logged by: RAH
Date Started: 12/17/12
Surface Conditions: Concrete
Well Location N/S: 35.8' N of NE corner of city light building
Well Location E/W: 5' E of NE corner of city light building
Reviewed by: CCC
Date Completed: 12/17/13

BORING LOG | **B122**
 MW122

Site Address: 700 Dexter Avenue North
 Seattle, WA

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
105								<p>Heaving conditions. Sampler stuck in Auger, sand locked. Boring advanced to 115 and set well without collecting soil samples.</p>	
110									
115								<p>Boring terminated at 115 feet below ground surface (bgs). Two-inch diameter well installed to a depth of 115 feet bgs, screened from 105 to 115 feet bgs, and finished with a flush-mounted monument and concrete seal. Completed as monitoring well MW122.</p>	
120									

Drilling Co./Driller: Cascade Drilling/ David
Drilling Equipment: LAR HSA
Sampler Type: D+M
Hammer Type/Weight: 140 lbs
Total Boring Depth: 115 feet bgs
Total Well Depth: 115 feet bgs
State Well ID No.:

Well/Auger Diameter: 2" / 8.25" inches
Well Screened Interval: 105-115 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Sand
Surface Seal: Cement
Annular Seal: Bentonite
Monument Type: Flush-mount

Notes/Comments:



DRAFT

Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/30/13
Surface Conditions: Concrete
Well Location N/S: 162 ft north of NE corner of Seattle City Light Bld
Well Location E/W: 4.5 ft east of NE corner of Seattle City Light Building
Reviewed by:
Date Completed: 12/30/13

BORING LOG | **B126**
 MW126

Site Address: 700 Dexter
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								Concrete 10" thick	
5								Clear boring with vector truck to depth of approximately 10 feet bgs.	
10	10 16 17		100	400	B126-10	SM		Damp, dense, silty SAND with gravel, gray, moderate hydrocarbon odor (35, 50, 15).	
15					B126-15				

Drilling Co./Driller: Cascade/Frank
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 95.5 feet bgs
Total Well Depth: 95 feet bgs
State Well ID No.: BID 021

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 85 to 95 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush Mount

Notes/Comments:



DRAFT

Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/30/13
Surface Conditions: Concrete
Well Location N/S: 162 ft north of NE corner of Seattle City Light Bld
Well Location E/W: 4.5 ft east of NE corner of Seattle City Light Building
Reviewed by:
Date Completed: 12/30/13

BORING LOG | **B126**
 MW126

Site Address: 700 Dexter
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15		4 4 4	100	5.7		SM-ML		Moist, loose, silty SAND with gravel, gray, slight hydrocarbon odor (45, 45, 10).	
20		8 4 4	15	3.2	B126-20	SM-ML		Wet, loose, silt with fine SAND, gray, no hydrocarbon odor (55, 45, 0).	
25		8 10 11	100	2.8	B126-25	SP-SM		Wet, loose, fine to medium SAND with silt, gray, no hydrocarbon odor (10, 90, 0).	
30									

Drilling Co./Driller: Cascade/Frank
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 95.5 feet bgs
Total Well Depth: 95 feet bgs
State Well ID No.: BID 021

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 85 to 95 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush Mount

Notes/Comments:



DRAFT

Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/30/13
Surface Conditions: Concrete
Well Location N/S: 162 ft north of NE corner of Seattle City Light Bld
Well Location E/W: 4.5 ft east of NE corner of Seattle City Light Building
Reviewed by:
Date Completed: 12/30/13

BORING LOG | **B126**
 MW126

Site Address: 700 Dexter
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
30	12 16 17		100	0.5	B126-30	SP-SM		Moist, dense, very fine SAND with silt, gray, no hydrocarbon odor (10, 90, 0).	
35	50/6		100	0.0	B126-35	SP-SM		Wet, very dense, very fine SAND with silt, gray, no hydrocarbon odor (10, 90, 0).	
40	50/6		100	0.2	B126-40	SP-SM		Wet, very dense, fine to medium SAND with silt, gray, no hydrocarbon odor (10, 90, 0).	
45									

Drilling Co./Driller: Cascade/Frank
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 95.5 feet bgs
Total Well Depth: 95 feet bgs
State Well ID No.: BID 021

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 85 to 95 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush Mount

Notes/Comments:



DRAFT

Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/30/13
Surface Conditions: Concrete
Well Location N/S: 162 ft north of NE corner of Seattle City Light Bld
Well Location E/W: 4.5 ft east of NE corner of Seattle City Light Building
Reviewed by:
Date Completed: 12/30/13

BORING LOG | **B126**
 MW126

Site Address: 700 Dexter
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
45		50/6	33	0.0	B126-45	ML		Damp, very dense, silt with fine SAND, gray, no hydrocarbon odor (60, 40, 0).	
50		50/6	100	0.0	B126-50	SM-ML		Damp, very dense, silty SAND with gravel, cohesive, gray, no hydrocarbon odor (40, 50, 0).	
55		50/6	33	0.0	B126-55	ML		Damp, very dense, SILT with fine sand and gravel, gray, cohesive, no hydrocarbon odor (50, 40, 10).	
60									

Drilling Co./Driller: Cascade/Frank
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 95.5 feet bgs
Total Well Depth: 95 feet bgs
State Well ID No.: BID 021

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 85 to 95 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush Mount

Notes/Comments:



DRAFT

Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/30/13
Surface Conditions: Concrete
Well Location N/S: 162 ft north of NE corner of Seattle City Light Bld
Well Location E/W: 4.5 ft east of NE corner of Seattle City Light Building
Reviewed by:
Date Completed: 12/30/13

BORING LOG | **B126**
 MW126

Site Address: 700 Dexter
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
60		50/6	33	0.0	B126-60	ML		Damp, very dense, SILT with fine sand and gravel, cohesive, gray, no hydrocarbon odor (60, 30, 10).	
65		50/6	33	0.0	B126-65	ML		Damp, very dense, SILT with fine sand and gravel, cohesive, gray, no hydrocarbon odor (60, 30, 10).	
70		50/6	100	0.0	B126-70	ML		Damp, very dense, SILT with fine sand and gravel, cohesive, gray, no hydrocarbon odor (50, 40, 10).	
75									

Drilling Co./Driller: Cascade/Frank
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 95.5 feet bgs
Total Well Depth: 95 feet bgs
State Well ID No.: BID 021

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 85 to 95 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush Mount

Notes/Comments:



DRAFT

Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/30/13
Surface Conditions: Concrete
Well Location N/S: 162 ft north of NE corner of Seattle City Light Bld
Well Location E/W: 4.5 ft east of NE corner of Seattle City Light Building
Reviewed by:
Date Completed: 12/30/13

BORING LOG | **B126**
 MW126

Site Address: 700 Dexter
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
75		50/6	33	0.0	B126-75	ML		Damp, very dense, SILT with fine sand and gravel, cohesive, gray, no hydrocarbon odor (50, 40, 10).	
80		50/6	33	0.0	B126-80	ML		Damp, very dense, SILT with fine sand and gravel, cohesive, gray, no hydrocarbon odor (50, 40, 10).	
85		50/6	33	0.0	B126-85	ML		Damp, very dense, SILT with fine sand and gravel, cohesive, gray, no hydrocarbon odor (50, 40, 10).	
90									

Drilling Co./Driller: Cascade/Frank
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 95.5 feet bgs
Total Well Depth: 95 feet bgs
State Well ID No.: BID 021

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 85 to 95 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush Mount

Notes/Comments:



DRAFT

Project: 700 Dexter
Project Number: 0797-001
Logged by: RAH
Date Started: 12/30/13
Surface Conditions: Concrete
Well Location N/S: 162 ft north of NE corner of Seattle City Light Bld
Well Location E/W: 4.5 ft east of NE corner of Seattle City Light Building
Reviewed by:
Date Completed: 12/30/13

BORING LOG | **B126**
 MW126

Site Address: 700 Dexter
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
90		50/6	0					Slough in sampler.	
95		50/6	100	0.0	B126-95	SP		Wet, very dense, fine to coarse SAND with gravel and silt, gray, no hydrocarbon odor, outwash sands (5, 90, 5).	
100								EOB at 95.5 feet bgs. Set well MW126.	
105									

Drilling Co./Driller: Cascade/Frank
Drilling Equipment: HSA
Sampler Type: Dames and Moore
Hammer Type/Weight: 140 lbs
Total Boring Depth: 95.5 feet bgs
Total Well Depth: 95 feet bgs
State Well ID No.: BID 021

Well/Auger Diameter: 2/8.25 inches
Well Screened Interval: 85 to 95 feet bgs
Screen Slot Size: 0.010 inches
Filter Pack Used: 2/12 Silica Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: Flush Mount

Notes/Comments:



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
<p>Concrete</p> <p>Bentonite Chips</p> <p>Sch. 40 PVC Casing</p>		MW-309-5			0	Concrete	Concrete
					2		DARK GRAY SILTY SAND (SM), moist, fine to medium, trace fine to coarse subangular to subrounded gravel (up to 1-inch diameter)
					4		at 2 feet: pieces of brick and wood
					5		Air knife & vac to 5 feet
				54		6	MOTTLED GRAY AND BROWN SANDY SILTY WITH GRAVEL (ML), wet, little fine to coarse sand, little fine gravel, debris pieces (timber, metal, broken tiles) (FILL)
	0.3				8		from 8 to 15 feet: strong chemical odor
	(269)	MW-309-10			10		GRAY SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, some fines, little fine to coarse gravel, appears very loose, scattered timber fragments
	3.4				12		
	(62)	MW-309-13.5 MW-309-15		120		14	
	30				16		
	7.1				18		
	3.1				20		
	2.3	MW-309-20			22		
	6.0				24		
	0.1				26		
0.1	MW-309-25		120		28		
0.3				30			
0.2				32			
0.2				34			
0.2	MW-309-30			36		GRAY SANDY SILT (ML), wet, some sand, few gravel	
0.1				38			
0.1				40			
0.2							
0.3	MW-309-35		108			GRAY SAND WITH SILT (SP), wet, few fines, few gravel	
2.0							
8.0							
4.0							
1.0							
0.3	MW-309-40						

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: H. Small
 Notes: BMF-575

Total Drilled Depth: 75 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/19/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
	0.4						
	0.2						
	1.0				42		
	0.3				44		GRAY SILTY SAND (SM), wet, fine to medium, little fines
	1.3	MW-309-45	120		46		
	0.3				48		
	0.2				50		
	0.2	MW-309-50			52		GRAY SANDY SILT (ML), moist, little fine to coarse sand, few fine to coarse gravel
	0.3				54		
	0.1				56		
	0.1	MW-309-55	120		58		
	0.1				60		at 59 feet: sample collected for physical analysis
	0.2	MW-309-60			62		GRAY SILTY SAND (SM), wet, fine to coarse, some fines, few fine gravel
	0.3				64		at 64 feet: driller noted drilling became harder
	0.1				66		
0.2				68		GRAY SANDY SILT (ML), wet, little fine to coarse sand, trace fine gravel	
0.3				70		at 68 feet: sample collected for physical analysis	
0.1	MW-309-70			72			
0.1				74			
0.1	MW-309-75		60	76		Bottom of Boring at 75 feet () Denotes PID reading taken in bag headspace, all other readings taken in open air immediately adjacent to soil	
0.1				78		Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand	
0.1				80			

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: H. Small
 Notes: BMF-575

Total Drilled Depth: 75 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/19/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
					82		Total Well Depth: 72.7 feet Well Sump/Endcap: 72.4 to 72.7 feet Well Screen: 62.4 to 72.4 feet Well Riser: 0.4 to 62.4 feet Filter Pack: 60 to 73 feet Well Seal: 1.5 to 60 feet (hydrated bentonite chips) & 73 to 75 feet Surface Seal: 0 to 1.5 feet (concrete) Well Monument: Flush with grade 8-inch steel monument
					84		
					86		
					88		
					90		
					92		
					94		
					96		
					98		
					100		
					102		
					104		
					106		
					108		
					110		
					112		
					114		
					116		
					118		
					120		

Project: Former American Linen Supply	Total Drilled Depth: 75 feet
Project Number: 1413.001.02.501B	Diameter of Boring: 6 inches
Site Location: Seattle, WA	Drill Date: 9/19/19
Logged By: H. Small	Drilled By: Holt Services
Notes: BMF-575	Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
					0	Concrete	Concrete
					2		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, some fines, little subangular to subrounded fine gravel (FILL)
					4		at 2 feet: broken tiles
					6		Air knife & vac to 5 feet
	(2.1)			54	6		
	(2.3)				8		BLACK, BROWN, AND RED FILL (FILL), wet, predominantly broken glass, nails, slag, and pieces of debris with little fine to coarse sand and gravel, faint creosote like odor
	(1.1)				10		
	(3.0)				12		GRAY SANDY SILT (ML), moist, some fine to coarse sand, trace gravel, green mottling
	(6.5)				14		GRAY SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, some fines, little fine to coarse subangular to subrounded gravel (up to 2-inch diameter)
	(14.1)				16		
	(48)				18		
	(3.3)			180	20		
	(3.8)				22		
	3.0				24		
	(3.1)				26		
	(2.6)				28		
	(3.1)				30		
	(2.0)				32		
	(2.0)				34		
	(1.9)				36		GRAY SILT (ML), wet, few fine sand
	(1.1)				38		GRAY SANDY SILT (ML), wet, some fine to coarse sand, few fine subangular to subrounded gravel, more consolidated than units above
	(0.6)				40		
	(1.1)						
(0.4)							
(0.6)							

Bottom of Boring at 25 feet
 () Denotes PID reading taken in bag headspace, all other readings taken in open air immediately adjacent to soil

Well Completion Details:
 Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand

Total Well Depth: 23.9 feet

Well Sump/Endcap: 23.8 to 23.9 feet
 Well Screen: 13.8 to 23.8 feet
 Well Risers: 0.4 to 13.8 feet
 Filter Pack: 12 to 25 feet
 Well Seal: 2 to 12 feet (hydrated bentonite chips)
 Surface Seal: 0 to 2 feet (concrete)
 Well Monument: Flush with grade 8-inch steel monument

Project: Former American Linen Supply	Total Drilled Depth: 25 feet
Project Number: 1413.001.02.501B	Diameter of Boring: 6 inches
Site Location: Seattle, WA	Drill Date: 9/16/19
Logged By: R. McLaughlin	Drilled By: Holt Services
Notes: BMF-590	Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
<p>Concrete</p> <p>Sch. 40 PVC Casing</p> <p>Bentonite Chips</p>					0		Concrete
					2		BROWN SILTY SAND (SM), moist, fine to medium, trace fine to coarse subangular gravel (FILL)
	0.0	MW-311-5			4		Air knife & vac to 5 feet
	0.0		60		6		MOTTLED GRAY AND BROWN SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, some fines, little fine to coarse subangular gravel (FILL)
	0.0	MW-311-10			8		from 5-10 feet: brown to black layers of wood timbers, tile fragments, and other debris
	0.0				10		
	0.0				12		
	0.0	MW-311-15		120	14		
	0.0				16		
	0.0				18		
	0.0	MW-311-20			20		at 29 feet: some gravel
	0.0				22		at 20 feet: color transitions to brown
	0.1				24		at 22 feet: little gravel
	0.1	MW-311-25		120	26		at 24 feet: color transitions to gray
	0.0				28		
	0.1	MW-311-30			30		at 29 feet: 6-inch layer of black, wet wood material
	0.0				32		
	0.0	MW-311-35		84	34		
0.0				36			GRAY SANDY SILT (ML), wet, fine to medium sand, trace fine gravel, scattered organics, very soft
0.1				38			GRAY SAND WITH SILT (SP), wet, fine to medium, few fines, trace fine gravel
0.0				40			

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: H. Small
 Notes: BMF-574

Total Drilled Depth: 74 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/18/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
	1.7	MW-311-40					GRAY SAND (SP), wet, fine to medium, few fines, trace fine gravel
	4.3				42		at 40 feet: sample collected for physical analysis
	6.3				44		GRAYISH BROWN SILTY SAND (SM), wet, fine, little fines
	6.5	MW-311-45	120		46		
	4.1				48		at 48 feet: sample collected for physical analysis
	3.8				50		at 50 feet: driller adding water to control heave
	2.1	MW-311-50			52		GRAY SANDY SILT (ML), wet, some fine to medium sand, few fine gravel
	1.7				54		
	3.6				56		
	6.1	MW-311-55	120		58		
	6.4				60		GRAY SILTY SAND (SM), wet, some fines, few gravel, very hard (TILL)
	4.1				62		
	2.4				64		
	0.4	MW-311-60			66		GRAY SILT WITH SAND (ML), moist, little fine to medium sand, trace fine gravel, very hard (TILL)
	0.1				68		
0.0				70			
0.0	MW-311-65 MW-2005-65	120		72		at 72 feet: fine to coarse sand	
0.0	MW-311-70 MW-2007-70	48		74		Bottom of Boring at 74 feet.	
0.0	MW-311-74			76		Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand	
				78		Total Well Depth: 72.5 feet Well Sump/Endcap: 72.2 to 72.5 feet Well Screen: 62.2 to 72.2 feet Well Riser: 0.20 to 62.2 feet	
				80			

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: H. Small
 Notes: BMF-574

Total Drilled Depth: 74 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/18/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
					82		Well Riser: 0.20 to 0.22 feet Filter Pack: 60 to 72.5 feet Well Seal: 3.5 to 60 feet (hydrated bentonite chips) Surface Seal: 0 to 3.5 feet (concrete) Well Monument: Flush with grade 8-inch steel monument
					84		
					86		
					88		
					90		
					92		
					94		
					96		
					98		
					100		
					102		
					104		
					106		
					108		
					110		
					112		
					114		
					116		
					118		
					120		

Project: Former American Linen Supply	Total Drilled Depth: 74 feet
Project Number: 1413.001.02.501B	Diameter of Boring: 6 inches
Site Location: Seattle, WA	Drill Date: 9/18/19
Logged By: H. Small	Drilled By: Holt Services
Notes: BMF-574	Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
Concrete					0		Concrete
					2		DARK BROWN SILTY SAND (SM), moist, fine to medium, little fines, trace fine to coarse subangular to subrounded gravel (FILL)
					4		LIGHT BROWN SILTY SAND (SM), moist, fine to medium, some fines (FILL) at 4.5 feet: broken brick and concrete pieces
					6		Air knife & vac to 6 feet
	(0.0)	MW-312-6			6		BROWN SANDY SILT (ML), wet, some fine to coarse sand, some pieces of metal, wood, and ceramics debris (FILL)
Sch. 40 PVC Casing	(0.0)		60		8		BROWNISH GRAY SILT (ML), wet, few fine to medium sand
Bentonite Chips	(0.0)	MW-312-10			10		BLACK, BROWN, AND RED FILL (FILL), wet, predominantly broken glass, nails, slag, and pieces of debris with little fine to coarse sand and gravel, faint creosote like odor
	(0.0)				12		GRAY SANDY SILT (ML), moist, some fine to medium sand, fines sticky, moderate hydrocarbon like odor
#12-20 Silica Sand	(3.2)				14		GRAY SILT (ML), moist, few fine sand, moderate hydrocarbon like odor
	(6.7)	MW-312-15	108		16		GRAY SANDY SILT (ML), moist, some fine to medium sand, moderate hydrocarbon like odor
	(1.3)				18		GRAY SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, some fines, little fine to coarse subangular to subrounded gravel, trace cobbles (up to 4-inch diameter), moderate hydrocarbon like odor, unconsolidated
	(1.7)				20		
	(7.4)				22		
	(15)	MW-312-20			24		at 24 feet: faint hydrocarbon like odor
0.020-inch Sch. 40 PVC Screen	(21)	MW-2004-20			26		
	(5.1)		60		28		
	(9.8)				30		
	(0.9)				32		
	(0.8)	MW-312-25			34		
	(0.8)				36		
End Cap					38		
					40		
							<p>Bottom of Boring at 26 feet () Denotes PID reading taken in bag headspace, all other readings taken in open air immediately adjacent to soil</p> <p>Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand</p> <p>Total Well Depth: 25.9 feet</p> <p>Well Sump/Endcap: 25.8 to 25.9 feet Well Screen: 15.8 to 25.8 feet Well Riser: 0.8 to 15.8 feet Filter Pack: 13 to 26 feet Well Seal: 2 to 13 feet (hydrated bentonite chips) Surface Seal: 0 to 2 feet (concrete) Well Monument: Flush with grade 8-inch steel monument</p>

Project: Former American Linen Supply
Project Number: 1413.001.02.501B
Site Location: Seattle, WA
Logged By: R. McLaughlin
Notes: BMF-589

Total Drilled Depth: 26 feet
Diameter of Boring: 6 inches
Drill Date: 9/16/19
Drilled By: Holt Services
Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
Concrete					0		Concrete
					2		DARK BROWN SILTY SAND (SM), moist, fine to coarse, some fines, pieces of debris (slag, wood, etc.), (FILL)
Bentonite Chips	0.0				4		Air knife & vac to 4.5 feet
	0.0				6		BROWNISH GRAY SANDY SILTY (ML), moist, some fine to coarse sand, few fine angular to subangular gravel, shell and glass debris, fines are sticky
	0.0		76		8		BLACK AND RED FILL (?), moist, equal parts fine to coarse sand and debris (glass, slag, wood, pieces of brick, etc.)
	0.0				10		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, some fines, little fine to coarse subangular to rounded gravel
Sch. 40 PVC Casing	0.0				12		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, little fine to coarse subrounded to rounded gravel (up to 3-inch), little fines, fine sticky, more consolidated than material above
	0.0				14		
	0.0		120		16		at 15 feet: gravel decreases
	0.0				18		
	0.0				20		at 20 feet: color transitions to gray
	0.0				22		BLACK SANDY SILT (ML), moist, some fine sand, some organics, few gravel
	0.0				24		GRAY SANDY SILT (ML), wet, some fine sand, soft
	0.0		120		26		GRAY SILTY WITH SAND (ML), wet, few fine sand
	0.0				28		GRAY SILTY SAND (SM), wet, fine to medium, some fines, trace fine subrounded to rounded gravel
	0.0				30		at 27 feet: fines decrease from some to little
	0.0				32		Bottom of Boring at 30 feet
	0.0				34		Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand
	0.0				36		Total Well Depth: 29.6 feet Well Sump/Endcap: 29.5 to 29.6 feet Well Screen: 19.5 to 29.5 feet Well Riser: 0.2 to 19.5 feet Filter Pack: 18 to 30 feet Well Seal: 2 to 18 feet (hydrated bentonite chips) Surface Seal: 0 to 2 feet (concrete) Well Monument: Flush with grade 8-inch steel monument
	0.0				38		
	0.0				40		

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BMF-586

Total Drilled Depth: 30 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/11/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
<p>Concrete</p> <p>Bentonite Chips</p> <p>Sch. 40 PVC Casing</p>					0		Concrete
					2		DARK BROWN SILTY SAND (SM), moist, fine to medium, some fines, little subangular fine to coarse gravel (FILL)
					4		Air knife & vac to 5 feet
			MW-314-6		6		
	0.1			48	8		BLACK AND RED FILL (FILL), moist, predominantly debris (glass, slag, wood, pieces of brick, etc.) with some fine to coarse sand
	0.2				10		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, some fines, little fine to coarse subangular to rounded gravel
	0.0		MW-314-10		12		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, little fine to coarse subrounded to rounded gravel (up to 3-inch), little fines, fines sticky, more consolidated than material above
	0.2				14		
	0.1			108	16		
	0.2				18		
	0.0		MW-314-15		20		
	0.4				22		
	0.3				24		BLACK SANDY ORGANIC SOIL (OL), moist, some fine sand, some organics, few fine subrounded to rounded gravel, organic decomposition odor
	0.3				26		GRAY SANDY SILT (ML), wet, some fine sand, soft
	0.1		MW-314-20		28		GRAY SILTY SAND (SM), wet, fine to medium, some fines, trace fine subrounded to rounded gravel
	0.1			120	30		BROWN SILTY SAND (SM), wet, fine to coarse, little fines, trace fine to coarse subangular to subrounded gravel, unconsolidated
	0.1		MW-314-25		32		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, some fines, little fine angular to subrounded gravel, more consolidated than above, fines sticky at 33.5 feet: color transitions to gray
	0.5		MW-2002-25		34		GRAY SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, some fines, little fine to coarse subangular to subrounded gravel, very consolidated (TILL)
	1.6				36		
	1.0				38		
0.8		MW-314-30		40		GRAY SANDY SILT (ML), moist, some fine to medium sand, few fine to coarse	
0.9			120				
0.9							
1.4							
0.7							
0.1		MW-314-35					
0.0			120				
(26.2)							
(27.7)							
(19.4)							
(17.1)							
(14.3)		MW-314-40					
(15.8)							
(13.2)							
(13.6)							
(13.4)							
(14.2)							

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BMF-588

Total Drilled Depth: 80 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/13/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
<p>Bentonite Chips</p> <p>Sch. 40 PVC Casing</p> <p>#12-20 Silica Sand</p> <p>0.020-inch Sch. 40 PVC Screen</p> <p>End Cap</p>	(16.0)	MW-314-45	120	42-44	42	[Graphic Log: Gray Sandy Silt]	GRAY SANDY SILT (ML), moist, some fine to medium sand, few fine to coarse subangular to subrounded gravel, very consolidated (TILL)
	1.7						(28)
	(23)	MW-314-50	120	46-48	46	[Graphic Log: Gray Silty Sand]	GRAY SILTY SAND (SM), moist, fine to medium, some fines, few fine to coarse subangular to subrounded gravel, very consolidated (TILL)
	2.4						(41)
	(70)	MW-314-55	120	52-56	52	[Graphic Log: Gray Sand with Silt]	GRAY SAND WITH SILT (SP), wet, fine to coarse, few fines, trace gravel, unconsolidated
	(48)						5.4
	(11.2)	MW-314-60	120	58-60	58	[Graphic Log: Gray Silty Sand with Gravel]	GRAY SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, little fine to coarse subangular to subrounded gravel
	5.8						at 60 feet: (driller using water)
	(7.0)	MW-314-65	120	62-64	62	[Graphic Log: Gray Sand with Silt and Gravel]	GRAY SAND WITH SILT AND GRAVEL (SP), wet, fine to coarse, few fines, few fine to coarse subangular to subrounded gravel, unconsolidated
	3.9						GRAY SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, little fines, little fine to coarse subangular to subrounded gravel
	(5.8)	MW-314-70	120	66-68	66	[Graphic Log: Grayish Brown Silty Gravel with Sand]	GRAYISH BROWN SILTY GRAVEL WITH SAND (GM), wet, fine to coarse, subangular to subrounded, some fine to coarse sand, little fines
	3.7						GRAYISH BROWN SILTY SAND WITH GRAVEL (SM), wet, medium to coarse, some fine to coarse subangular to subrounded gravel, some fines, fines sticky
	(2.8)	MW-314-75	120	70-72	70	[Graphic Log: Gray Silty Gravel with Sand]	GRAY SILTY GRAVEL WITH SAND (GM), wet, fine to coarse, subangular to subrounded, some fines, little fine to coarse sand, few cobbles up to 4-inch diameter
	3.6						GRAY SILTY GRAVEL WITH SAND (GM), wet, fine to coarse, subangular to subrounded, some fines, little fine to coarse sand, few cobbles up to 4-inch diameter
	(8.4)	MW-314-80	120	74-76	74	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated
	7.7						7.7
(3.4)	MW-314-80	120	78-80	78	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
3.4						0.7	0.7
(4.7)	MW-314-80	120	80-82	80	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
4.7						0.8	0.8
(6.0)	MW-314-80	120	82-84	82	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
5.3						0.7	0.7
(5.4)	MW-314-80	120	84-86	84	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
0.7						0.7	0.7
(0.8)	MW-314-80	120	86-88	86	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
0.8						0.7	0.7
(0.7)	MW-314-80	120	88-90	88	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
0.7						0.7	0.7
(0.9)	MW-314-80	120	90-92	90	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
0.9						0.7	0.7
(0.7)	MW-314-80	120	92-94	92	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
0.7						0.7	0.7
(0.8)	MW-314-80	120	94-96	94	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
0.8						0.7	0.7
(0.7)	MW-314-80	120	96-98	96	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
0.7						0.7	0.7
(0.6)	MW-314-80	120	98-100	98	[Graphic Log: Red Brown Silt with Sand]	RED BROWN SILT WITH SAND (ML), moist, few fine to coarse sand, few fine to coarse subangular to subrounded gravel, consolidated	
0.6						0.6	0.6

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BMF-588

Total Drilled Depth: 80 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/13/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
							<p>Bottom of Boring at 80 feet</p> <p>Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand</p> <p>Total Well Depth: 78 feet Well Sump/Endcap: 77.8 to 78 feet Well Screen: 67.8 to 77.8 feet Well Riser: 0.8 to 67.8 feet Filter Pack: 65 to 80 feet Well Seal: 2 to 65 feet (hydrated bentonite chips) Surface Seal: 0 to 2 feet (concrete) Well Monument: Flush with grade 8-inch steel monument</p>
					82		
					84		
					86		
					88		
					90		
					92		
					94		
					96		
					98		
					100		
					102		
					104		
					106		
					108		
					110		
					112		
					114		
					116		
					118		
					120		

Project: Former American Linen Supply	Total Drilled Depth: 80 feet
Project Number: 1413.001.02.501B	Diameter of Boring: 6 inches
Site Location: Seattle, WA	Drill Date: 9/13/19
Logged By: R. McLaughlin	Drilled By: Holt Services
Notes: BMF-588	Drill Method: Sonic

Environmental Boring Log

Project Name: Westlake Terminals						Sheet 1 of 1
Job No.: E-5704	Logged by: MLP	Start Date: 8-12-92	Completion Date: 8-12-92	Boring No: B-301		
Drilling Contractor: Environmental Drilling		Drilling Method: Hollow Stem Auger		Sampling Method: Split Spoon		
Ground Surface Elevation: Approximately 20'		Hole Completion: <input checked="" type="checkbox"/> Monitoring Well <input type="checkbox"/> Piezometer <input type="checkbox"/> Abandoned, sealed with bentonite				
Microtip Reading	Sample ID	Blow Count	Litho-graphy	Depth in Feet	USCS Symbol	Surface Conditions:
				1		Asphalt and concrete
0		1		2	sm	Brown silty fine SAND fill with fine gravel, moist, glass fragments, shells, no hydrocarbon odor
		1		3		
		1		4		
		1		5	gm	
	B-301-5.5'	1		6	NR	Brown and black silty sandy fine GRAVEL fill, moist to wet, asphaltic gravel, slight heavy hydrocarbon odor
		1		7		
		1		8	NR	
				9	NR	
50	B-301-10.5'	1		10	sm	Gray silty fine SAND with fine gravel, wet to saturated, moderate hydrocarbon odor (gas and/or diesel??)
		2		11	NR	
		2		12		
		4		13	NR	
		14		14		
		36		15		
				16		Bottom of boring.
				17		
				18		
				19		

Notes/Location

NR - no recovery
 Groundwater encountered between 11 and 13 feet during drilling



Earth Consultants Inc.

Proj. No. 5704 Date Aug '92 Plate E17

Subsurface conditions depicted represent our observations at the time and location of this exploratory hole, modified by engineering tests, analysis and judgment. They are not necessarily representative of other times and locations. We cannot accept responsibility for the use of interpretation by others of information presented on this log.

Monitor Well Completion Form

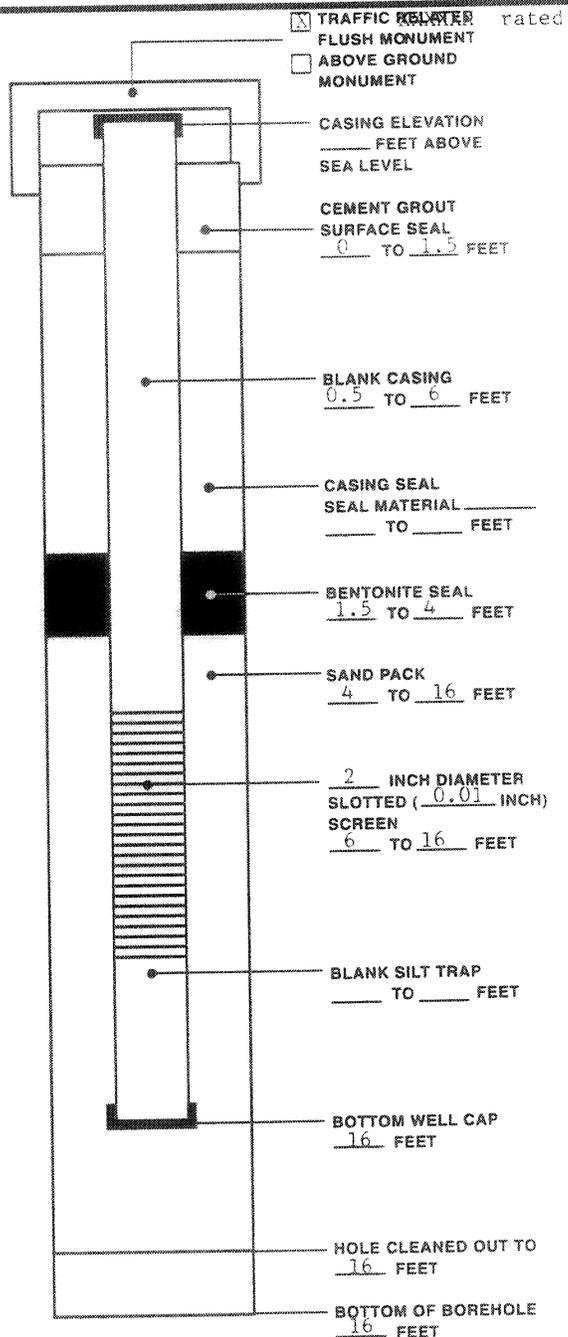
PROJECT NAME: Westlake Terminals	
PROJECT NUMBER: E-5704	PROJECT MANAGER:
LOGGED BY: MLP	REVIEWED BY:
WELL I.D.: B-301	DATE: 8-12-92
DRILLING COMPANY: Environmental Drilling	
METHOD OF DECONTAMINATION PRIOR TO DRILLING:	

DEVELOPMENT

METHOD OF DEVELOPMENT: Bailing	
DEVELOPMENT DATE: 8-13-92	
YIELD (GAL): 38	TIME: FROM 1200 TO 1430
DESCRIPTION OF TURBIDITY AT END OF DEVELOPMENT:	<input checked="" type="checkbox"/> CLEAR <input type="checkbox"/> SLIGHTLY CLOUDY <input type="checkbox"/> MOD. TURBID <input type="checkbox"/> VERY MUDDY
ODOR OF WATER: Gasoline	
WATER DISCHARGED TO:	<input type="checkbox"/> GROUND SURFACE <input type="checkbox"/> TANK TRUCK <input type="checkbox"/> SANITARY SEWERS <input type="checkbox"/> STORAGE TANK <input checked="" type="checkbox"/> DRUMS <input type="checkbox"/> OTHER
DEPTH TO WATER AT START OF DEVELOPMENT: 9'	DEPTH TO WATER AFTER DEVELOPMENT:
RECOVERY TIME:	

MATERIALS USED

4	SACKS OF	10/20	SAND
1	SACKS OF		CEMENT
	SACKS OF GROUT:		
	SACKS OF POWDERED BENTONITE:		
1	SACKS OF BENTONITE CHIPS:		
	BUCKETS OF BENTONITE PELLETS:		
6	FEET OF	2	INCH BLANK CASING <input checked="" type="checkbox"/> PVC <input type="checkbox"/>
10	FEET OF	2	INCH SCREEN <input checked="" type="checkbox"/> SLOTTED PVC <input type="checkbox"/> 0.01 INCH SLOT SIZE
	FEET OF		INCH STEEL CONDUCTOR CASING
	YARD ³ CEMENT-SAND (REDI-MIX) ORDERED:		
	YARD ³ CEMENT-SAND (REDI-MIX) USED:		
CONCRETE PUMPER USED? <input type="checkbox"/> YES <input type="checkbox"/> NO			
NAME:			



NOT TO SCALE

ADDITIONAL INFORMATION



Earth Consultants Inc.

Proj. No. 5704

Drwn. GLS

Date Aug '92

Checked MLP

Date 8-26-92

Plate E18

Environmental Boring Log

Project Name: Westlake Terminals					Sheet of 1 1				
Job No.: E-5704		Logged by: MLP		Start Date: 7/13/92		Completion Date: 7/13/92		Boring No.: B-201	
Drilling Contractor: Environmental Drilling				Drilling Method: Hollow Stem Auger			Sampling Method: Split spoon		
Ground Surface Elevation: approximately 20 feet				Hole Completion: <input checked="" type="checkbox"/> Monitoring Well <input type="checkbox"/> Piezometer <input type="checkbox"/> Abandoned, sealed with bentonite					
Microtip Reading	Sample ID	Blow Count	Litho-graphy	Depth in Feet	USCS Symbol	Surface Conditions:			
			Concrete	1	ml	Brown sandy SILT fill, dry to damp, fine sand, heavy hydrocarbon odor at 3 to 5 feet, abundant charcoal, ash and glass fragments			
			Concrete	2					
		2	Concrete	3					
	B-201-3'	2	Concrete	4					
		2	Concrete	5					
			Concrete	6					
			Gray sandy SILT (fill?), moist to wet, occasional thin layers of silty fine sand, moderate to strong hydrocarbon odor (gasoline) below approximately 7 feet	7		Gray sandy SILT (fill?), moist to wet, occasional thin layers of silty fine sand, moderate to strong hydrocarbon odor (gasoline) below approximately 7 feet			
		2	Silty fine sand	8	ml				
	B-201-8.5'	2	Silty fine sand	9					
		3	Silty fine sand	10					
			Silty fine sand	11					
			Silty fine sand	12					
		4	Silty fine sand	13					
		4	Silty fine sand	14					
		3	Silty fine sand	15					
			Silty fine sand	16					
			Gray silty fine SAND, saturated, no hydrocarbon odor	17		Gray silty fine SAND, saturated, no hydrocarbon odor			
			Silty fine sand	18	sm				
			Silty fine sand	19					
						Bottom of boring			

Notes/Location
Encountered groundwater at approximately 11 feet during drilling.



Earth Consultants Inc.

Proj. No. 5704

Date Aug '92

Plate E11

Subsurface conditions depicted represent our observations at the time and location of this exploratory hole, modified by engineering tests, analysis and judgment. They are not necessarily representative of other times and locations. We cannot accept responsibility for the use of interpretation by others of information presented on this log.

Monitor Well Completion Form

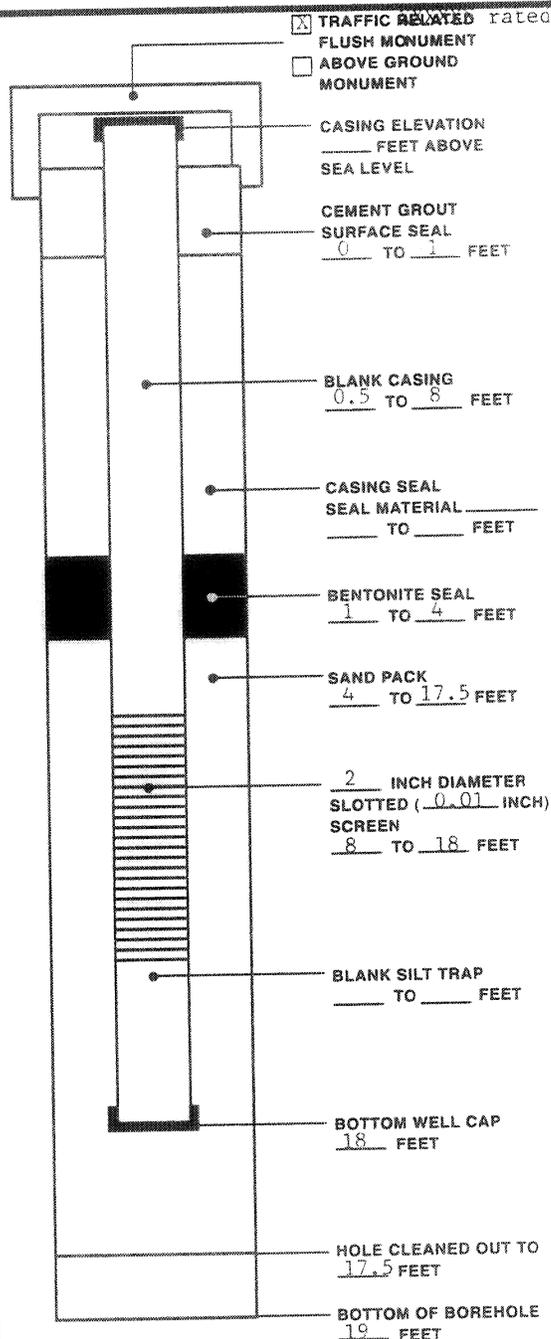
PROJECT NAME:	Westlake Terminals		
PROJECT NUMBER:	E-5704	PROJECT MANAGER:	
LOGGED BY:	MLP	REVIEWED BY:	
WELL I.D.:	B-201	DATE:	7/13/92
DRILLING COMPANY:	Environmental Drilling		
METHOD OF DECONTAMINATION PRIOR TO DRILLING:	Steam cleaning		

DEVELOPMENT

METHOD OF DEVELOPMENT:	Bailing		
DEVELOPMENT DATE:	7/17/92		
YIELD (GAL)	24	TIME: FROM	1200 TO 1345
DESCRIPTION OF TURBIDITY AT END OF DEVELOPMENT:	<input type="checkbox"/> CLEAR	<input type="checkbox"/> SLIGHTLY CLOUDY	<input type="checkbox"/> VERY MUDDY
	<input checked="" type="checkbox"/> MOD. TURBID	<input type="checkbox"/>	
ODOR OF WATER:	Petroleum hydrocarbons (gasoline)		
WATER DISCHARGED TO:	<input type="checkbox"/> GROUND SURFACE	<input type="checkbox"/> TANK TRUCK	<input type="checkbox"/> STORAGE TANK
	<input type="checkbox"/> SANITARY SEWERS	<input type="checkbox"/>	<input type="checkbox"/> OTHER
	<input checked="" type="checkbox"/> DRUMS		
DEPTH TO WATER AT START OF DEVELOPMENT:	9.10'	DEPTH TO WATER AFTER DEVELOPMENT:	
RECOVERY TIME:	Moderate		

MATERIALS USED

3.5	SACKS OF	10/20	SAND
1.5	SACKS OF		CEMENT
	SACKS OF GROUT:		
	SACKS OF POWDERED BENTONITE:		
1.5	SACKS OF BENTONITE CHIPS:		
	BUCKETS OF BENTONITE PELLETS:		
7.5	FEET OF	2	INCH BLANK CASING <input checked="" type="checkbox"/> PVC <input type="checkbox"/>
10	FEET OF	2	INCH SCREEN <u>0.01</u> INCH SLOT SIZE
		<input checked="" type="checkbox"/>	SLOTTED PVC <input type="checkbox"/>
	FEET OF		INCH STEEL CONDUCTOR CASING
	YARD ³	CEMENT-SAND (REDI-MIX) ORDERED:	
	YARD ³	CEMENT-SAND (REDI-MIX) USED:	
	CONCRETE PUMPER USED?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
	NAME:		



NOT TO SCALE

ADDITIONAL INFORMATION

Well casing slipped into bottom sample hole.



Earth Consultants Inc.

Proj. No. 5704

Drwn. GLS

Date Aug '92

Checked MLP

Date 8/17/92

Plate E12

Environmental Boring Log

Sheet of
1 1

Project Name: Westlake Terminals				Boring No: B-202	
Job No.: E-5704	Logged by: MLP	Start Date: 7/13/92	Completion Date: 7/13/92		
Drilling Contractor: Environmental Drilling		Drilling Method: Hollow Stem Auger	Sampling Method: Split Spoon		
Ground Surface Elevation: 20-25 feet		Hole Completion: <input checked="" type="checkbox"/> Monitoring Well <input type="checkbox"/> Piezometer <input type="checkbox"/> Abandoned, sealed with bentonite			

Microtip Reading	Sample ID	Blow Count	Litho-graphy	Depth in Feet	USCS Symbol	Surface Conditions:
			Concrete	0		Concrete
			[Cross-hatched lithography pattern]	1	sm	Dark gray to gray-green silty fine SAND fill, damp to moist, slight heavy hydrocarbon odor (?), abundant organics, occasional fragments of glass
				2		
		10		3		
	B-202-3.5'	8		4		
		9		5		
				6		
				7		
				8		
	B-202-8'	1		9	NR	
		2				
		4				
			[Vertical line lithography pattern]	10	sm	Gray-green and brown silty fine SAND (fill?), moist to saturated, occasional fine gravel, no hydrocarbon odor
				11		
				12		
		12		13		
		9		14		
		4		15		
				16		
				17		
		2		18		
		3		19		
		3				
Bottom of boring						

Notes/Location
 NR - no recovery
 Groundwater encountered at approximately 12.5 feet during drilling



Proj. No. 5704 Date Aug '92 Plate E13

Subsurface conditions depicted represent our observations at the time and location of this exploratory hole, modified by engineering tests, analysis and judgment. They are not necessarily representative of other times and locations. We cannot accept responsibility for the use of interpretation by others of information presented on this log.

Monitor Well Completion Form

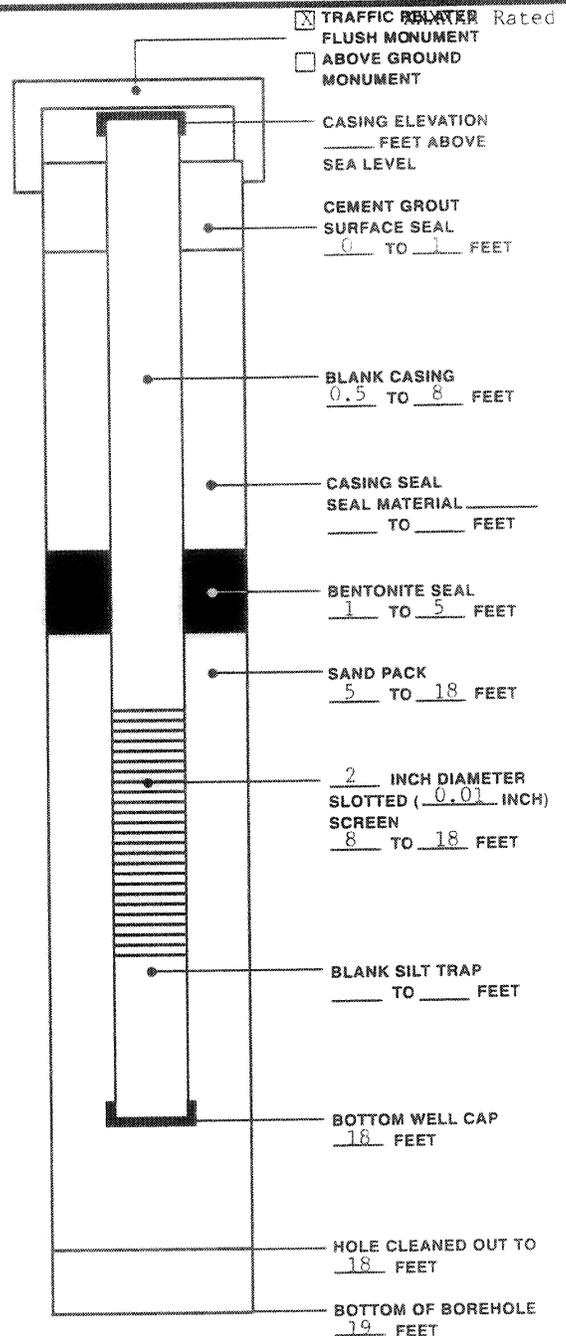
PROJECT NAME: Westlake Terminal	
PROJECT NUMBER: E-5704	PROJECT MANAGER:
LOGGED BY: MLP	REVIEWED BY:
WELL I.D.: B-202	DATE: 7/13/92
DRILLING COMPANY: Environmental Drilling	
METHOD OF DECONTAMINATION PRIOR TO DRILLING: Steam Cleaning	

DEVELOPMENT

METHOD OF DEVELOPMENT: Bailing	
DEVELOPMENT DATE: 7/16/92	
YIELD (GAL) 10	TIME: FROM 1300 TO 1445
DESCRIPTION OF TURBIDITY AT END OF DEVELOPMENT:	<input type="checkbox"/> CLEAR <input checked="" type="checkbox"/> SLIGHTLY CLOUDY <input type="checkbox"/> MOD. TURBID <input type="checkbox"/> VERY MUDDY
ODOR OF WATER: None	
WATER DISCHARGED TO:	<input type="checkbox"/> GROUND SURFACE <input type="checkbox"/> TANK TRUCK <input type="checkbox"/> SANITARY SEWERS <input type="checkbox"/> STORAGE TANK <input checked="" type="checkbox"/> DRUMS <input type="checkbox"/> OTHER
DEPTH TO WATER AT START OF DEVELOPMENT: 11.34'	DEPTH TO WATER AFTER DEVELOPMENT:
RECOVERY TIME: slow	

MATERIALS USED

4	SACKS OF	10/20	SAND
2	SACKS OF		CEMENT
	SACKS OF GROUT:		
	SACKS OF POWDERED BENTONITE:		
2	SACKS OF BENTONITE CHIPS:		
	BUCKETS OF BENTONITE PELLETS:		
7.5	FEET OF	2	INCH BLANK CASING <input checked="" type="checkbox"/> PVC <input type="checkbox"/>
10	FEET OF	2	INCH SCREEN <input checked="" type="checkbox"/> 0.01 INCH SLOT SIZE <input checked="" type="checkbox"/> SLOTTED PVC <input type="checkbox"/>
	FEET OF		INCH STEEL CONDUCTOR CASING
	YARD ³ CEMENT-SAND (REDI-MIX) ORDERED:		
	YARD ³ CEMENT-SAND (REDI-MIX) USED:		
CONCRETE PUMPER USED? <input type="checkbox"/> YES <input type="checkbox"/> NO			
NAME:			



NOT TO SCALE

ADDITIONAL INFORMATION



Earth Consultants Inc.

Proj. No. 5704

Drwn. GLS

Date Aug '92

Checked MLP

Date 8/18/92

Plate E14

LOG OF BORING GP-1

WATER LEVELS ∇ During Drilling 10 feet ∇ 1 hour after Drilling 10 Feet ∇

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	Moisture, %	STRENGTH, tsf	Additional Remarks
								STANDARD PENETRATION TEST DATA N in blows/ft \odot X Moisture \blacksquare PL \oplus LL	STRENGTH, tsf \blacktriangle Qu * Qp	
0		Asphalt (5 inches Thick)				Moist brown to Gray silty SAND and sandy SILT with asphalt and wood debris (Fill)				
	25									>> \odot
5										
	26									>> \odot
10						∇ Moist to wet gray silty SAND with thin layers (less than 1/2 inch) of SAND with silt. Strong petroleum odor noted (Older fill)	SM			PID=0.0 ppm PID=196.0 ppm PID=246.0 ppm
	36					Sample of Soil collected at 13 feet for TPHg, TPHd, and VOC's.				>> \odot
15										PID=100.0 ppm PID=20.0 ppm
	10					Moist gray SILT with sand, no petroleum odor observed	ML			PID=0.0 ppm >> \odot
20						Bottom of exploration at 20 feet. Groundwater at 10 feet. Exploration pumped dry prior to collecting water sample for TPHg TPHd and VOC's.				

PROJECT NO.: <u>07121234</u> PROJECT: <u>South Lake Union Hotel</u> LOCATION: <u>753 9th Ave N</u> <u>Seattle, WA</u>	DATE STARTED: <u>5/21/15</u> DATE COMPLETED: <u>5/21/15</u> COMPLETION DEPTH: <u>20.0 ft</u> DRILL COMPANY: <u>PSI, Inc.</u> LOGGED BY: <u>MSP</u> DRILL RIG: <u>Truck Mounted Geoprobe</u> DRILLING METHOD: <u>Geoprobe</u> SAMPLING METHOD: _____ HAMMER TYPE: <u>Automatic</u> EFFICIENCY: <u>N/A</u> REMARKS: _____	BENCHMARK: <u>N/A</u> ELEVATION: <u>N/A</u> LATITUDE: <u>47.62686°</u> LONGITUDE: <u>-122.34011°</u> STATION: <u>N/A</u> OFFSET: <u>N/A</u> BORING LOCATION: _____ REVIEWED BY: <u>MSP</u>
---	--	---



Professional Service Industries
 20508 56th Avenue W, Suite A
 Lynnwood, WA 98036

The stratification lines represent approximate boundaries. The transition may be gradual.

LOG OF BORING GP-2

WATER LEVELS ∇ During Drilling 10 feet ∇

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	Moisture, %	STRENGTH, tsf	Additional Remarks
0						Asphalt (2.5 inches thick)				
					36	Moist brown, gray and white, silty SAND and sandy SILT with asphalt and wood debris (Fill)				>>⊕
5					25					>>⊕
10					24	Moist to wet gray silty SAND with thin layers (less than 1/2 inch) of SAND with silt. Weak Petroleum Oder at 12 feet.	SM			PID=0.0 ppm >>⊕ PID=7.5 ppm PID=0.0 ppm
15						Bottom of exploration at 15 feet. Groundwater at 10 feet. Three volumes of water column in exploration pumped prior to collecting water sample for TPHg TPHd and VOC's.				

STANDARD PENETRATION TEST DATA
N in blows/ft ⊕

× Moisture ▣ PL
 + LL

0 25 50

STRENGTH, tsf

▲ Qu * Qp

0 2.0 4.0

PROJECT NO.: 07121234	DATE STARTED: 5/21/15	BENCHMARK: N/A
PROJECT: South Lake Union Hotel	DATE COMPLETED: 5/21/15	ELEVATION: N/A
LOCATION: 753 9th Ave N Seattle, WA	COMPLETION DEPTH: 15.0 ft	LATITUDE: 47.62686°
	DRILL COMPANY: PSI, Inc.	LONGITUDE: -122.34011°
	LOGGED BY: MSP	STATION: N/A
	DRILL RIG: Truck Mounted Geoprobe	OFFSET: N/A
	DRILLING METHOD: Geoprobe	BORING LOCATION:
	SAMPLING METHOD:	
	HAMMER TYPE: Automatic	
	EFFICIENCY: N/A	REVIEWED BY: MSP
REMARKS:		



LOG OF BORING GP-3

WATER LEVELS ∇ During Drilling 10 feet ∇ 1 hour after Drilling 10 Feet ∇

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	Moisture, %	STRENGTH, tsf	Additional Remarks
0						Asphalt (5 inches Thick)				
					40	Moist brown to Gray silty SAND and sandy SILT with asphalt and wood debris (Fill)				>>⊙
5					28					>>⊙
					28	Moist to wet gray silty SAND with thin layers (less than 1/2 inch) of SAND with silt. Strong petroleum oder noted (Older fill)	SM			PID=0.0 ppm PID=190.0 ppm
10					28	Sample of Soil collected at 12 feet for TPHg, TPHd, and VOC's.				>>⊙ PID=280.0 ppm
15						Bottom of Geoprobe at 15 feet. Groundwater at 10 feet. Exploration pumped dry prior to collecting water sample for TPHg TPHd and VOC's.				PID=120.0 ppm

STANDARD PENETRATION TEST DATA
N in blows/ft ⊙

× Moisture ▣ PL
 + LL

STRENGTH, tsf

▲ Qu * Qp

PROJECT NO.: 07121234	DATE STARTED: 5/21/15	BENCHMARK: N/A
PROJECT: South Lake Union Hotel	DATE COMPLETED: 5/21/15	ELEVATION: N/A
LOCATION: 753 9th Ave N Seattle, WA	COMPLETION DEPTH: 15.0 ft	LATITUDE: 47.62686°
	DRILL COMPANY: PSI, Inc.	LONGITUDE: -122.34011°
	LOGGED BY: MSP	STATION: N/A
	DRILL RIG: Truck Mounted Geoprobe	OFFSET: N/A
	DRILLING METHOD: Geoprobe	BORING LOCATION:
	SAMPLING METHOD:	
	HAMMER TYPE: Automatic	
	EFFICIENCY: N/A	REVIEWED BY: MSP
REMARKS:		



LOG OF BORING GP-5

WATER LEVELS ∇ During Drilling 11.5 feet ∇ 1/2 hour after Drilling 11.5 Feet ∇

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	Moisture, %	STRENGTH, tsf	Additional Remarks
0						Asphalt (3 inches thick)				
					24	Moist brown, gray and white, silty SAND and sandy SILT with asphalt and wood debris (Fill)				>>⊙
5										
					26					>>⊙
10						Moist to wet gray, poorly graded SAND with silt.	SP-SM			
					48					>>⊙
						Moist, gray, SILT with sand	ML			
15						Bottom of exploration at 15 feet. Groundwater at 11.5 feet. Exploration pumped dry prior to collecting water sample for TPHg TPHd and VOC's.				

STANDARD PENETRATION TEST DATA
N in blows/ft ⊙

× Moisture ▣ PL
 + LL

STRENGTH, tsf

▲ Qu * Qp

PROJECT NO.: 07121234	DATE STARTED: 5/21/15	BENCHMARK: N/A
PROJECT: South Lake Union Hotel	DATE COMPLETED: 5/21/15	ELEVATION: N/A
LOCATION: 753 9th Ave N Seattle, WA	COMPLETION DEPTH: 15.0 ft	LATITUDE: 47.62686°
	DRILL COMPANY: PSI, Inc.	LONGITUDE: -122.34011°
	LOGGED BY: MSP	STATION: N/A
	DRILL RIG: Truck Mounted Geoprobe	OFFSET: N/A
	DRILLING METHOD: Geoprobe	BORING LOCATION:
	SAMPLING METHOD:	
	HAMMER TYPE: Automatic	
	EFFICIENCY: N/A	REVIEWED BY: MSP
REMARKS:		



LOG OF BORING GP-6

WATER LEVELS ∇ During Drilling 9.5 feet ∇ 1/2 hour after Drilling 9.5 Feet ∇

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	Moisture, %	STRENGTH, tsf	Additional Remarks
0						Asphalt (3 inches thick)				
					25	Moist brown, gray and white, silty SAND and sandy SILT with asphalt and wood debris (Fill)				>>⊙
5										
					30					>>⊙
10						Wet gray with orange mottling, poorly graded SAND with silt.	SP-SM			
					42					>>⊙
						Moist, gray, SILT with sand	ML			
15						Bottom of Geoprobe at 15 feet. Groundwater at 9.5 feet. Exploration pumped dry prior to collecting water sample for TPHg TPHd and VOC's.				

STANDARD PENETRATION TEST DATA
N in blows/ft ⊙

× Moisture ▣ PL
 + LL

STRENGTH, tsf

▲ Qu * Qp

PROJECT NO.: 07121234	DATE STARTED: 5/21/15	BENCHMARK: N/A
PROJECT: South Lake Union Hotel	DATE COMPLETED: 5/21/15	ELEVATION: N/A
LOCATION: 753 9th Ave N Seattle, WA	COMPLETION DEPTH: 15.0 ft	LATITUDE: 47.62686°
	DRILL COMPANY: PSI, Inc.	LONGITUDE: -122.34011°
	LOGGED BY: MSP	STATION: N/A
	DRILL RIG: Truck Mounted Geoprobe	OFFSET: N/A
	DRILLING METHOD: Geoprobe	BORING LOCATION:
	SAMPLING METHOD:	
	HAMMER TYPE: Automatic	
	EFFICIENCY: N/A	REVIEWED BY: MSP
REMARKS:		





Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
Concrete					0		Concrete
					2		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, little fines, little fine to coarse subangular to subrounded gravel, few subrounded cobbles (FILL) at 2 feet: pieces of brick and concrete
					4		
					6		Air knife & vac to 5 feet
	0.1	MW-324-6			6		
	0.2				8		
	1.4		48		8		from 7 to 9 feet: color transitions from dark brown to red brown to grayish brown
	0.1				10		
	0.2	MW-324-10			10		
Bentonite Chips					12		
					14		GRAYISH BROWN SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, little fines, little fine to coarse subangular to subrounded gravel, fines "sitcky", more consolidated than above, mottling throughout
					16		at 14 feet: sample collected for physical analysis
	NR	MW-324-15	120		16		
					18		DARK BROWN ORGANIC SOIL WITH SAND (OL), wet, little fine to medium sand, trace fine subangular to subrounded gravel
					20		GRAY SILTY SAND (SM), wet, fine to medium, some fines, few fine to coarse subrounded to rounded gravel
Sch. 40 PVC Casing		MW-324-20			20		
	0.0				22		GRAY SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, little fine to coarse subangular to subrounded gravel
	0.0				24		at 22 feet: some gravel, fines "sticky"
	0.0				26		
	0.0	MW-324-25	120		26		at 25 feet: 6-inch lens of silty sand
	0.0				28		at 26 feet: some fines
	0.0				30		
	0.0	MW-324-30			30		GRAY SILTY SAND (SM), wet, fine to medium, little fines, few fine subrounded to rounded gravel, appears loose
	0.0				32		GRAY CLAY WITH SAND (CL), moist, little fine sand, medium plasticity
	0.0				34		at 30 feet: sample collected for physical analysis
	0.0				36		GRAY SANDY SILT (ML), wet, some fine sand
	0.0				38		at 33 feet: 4-inch clay lens
	0.0				40		
	0.0	MW-324-35	120		34		GRAY SILTY SAND (SM), wet, fine to medium, some fines
	0.0				36		
	0.0				38		GRAY CLAY (CL), moist, few fine sand, medium plasticity
	0.0				40		GRAY SANDY SILT (ML), wet, some fine sand, trace fine gravel
	0.0	MW-324-40			40		at 38 feet: sample collected for physical analysis

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BMF-587

Total Drilled Depth: 80 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/12/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
	0.0						at 40 feet: (driller adding water to control heave)
	0.0				42		GRAY SILT WITH SAND (ML), wet, few fine sand
	0.0	MW-324-45	120		44		
	0.0				46		
	0.0				48		GRAY SANDY SILT (ML), wet, some fine sand
	0.0	MW-324-50			50		GRAY SILTY SAND (SM), wet, fine to medium, little fines
	0.2				52		GRAY SAND WITH SILT (SP), wet, fine to medium, few fines
	0.0				54		
	0.0	MW-324-55	120		56		
	0.2				58		
	0.1				60		
	0.0	MW-324-60			62		
	0.0				64		
	0.0	MW-324-65	120		66		
	0.0				68		GRAY SILTY SAND (SM), wet, fine to medium, little fines
	0.0	MW-324-70			70		
	0.0				72		
	0.0	MW-324-75	120		74		GRAY SILTY SAND (SM), wet, fine to medium, some fines
	0.0				76		GRAY SANDY SILT (ML), wet, some fine to medium sand, appears soft
	0.0				78		
	0.0	MW-324-80			80		

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: R. McLaughlin
 Notes: BMF-587

Total Drilled Depth: 80 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/12/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
					82		<p>Bottom of Boring at 80 feet () Denotes PID reading taken in bag headspace, all other readings taken in open air immediately adjacent to soil, NR = Not Recorded</p> <p>Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand</p> <p>Total Well Depth: 76.5 feet Well Sump/Endcap: 76.3 to 76.5 feet Well Screen: 67.3 to 76.3 feet Well Riser: 0.3 to 67.3 feet Filter Pack: 65 to 78 feet Well Seal: 2 to 65 feet & 78 to 80 feet (hydrated bentonite chips) Surface Seal: 0 to 2 feet (concrete) Well Monument: Flush with grade 8-inch steel monument</p>
					84		
					86		
					88		
					90		
					92		
					94		
					96		
					98		
					100		
					102		
					104		
					106		
					108		
					110		
					112		
					114		
					116		
					118		
					120		

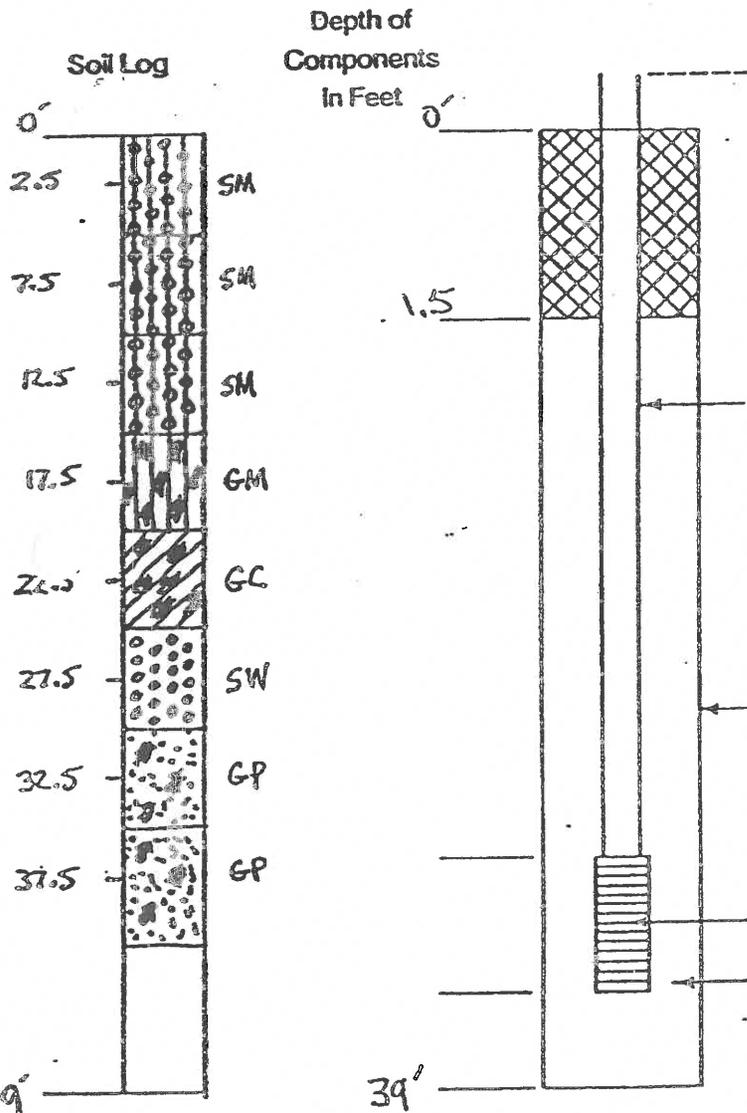
Project: Former American Linen Supply	Total Drilled Depth: 80 feet
Project Number: 1413.001.02.501B	Diameter of Boring: 6 inches
Site Location: Seattle, WA	Drill Date: 9/12/19
Logged By: R. McLaughlin	Drilled By: Holt Services
Notes: BMF-587	Drill Method: Sonic



Resource Protection Well Report

Project Name Seattle Parks Dept.
 Well Identification # B-1
 Drilling Method 4" HSA
 Driller Pat Ternis
 License # 1793
 Job # 39

Date 3-12-19-43
 County King NW 1/4 SE 1/4
 Section 30 T. 25 N R. 4E
 Start Card 102728
 Consulting Firm E.P. Johnson



Stick up N/A on Monument Casing

Type of Surface Seal Concrete
 Amount 1.5

ID of Riser Pipe _____
 Type of Riser Pipe _____
 Amount N/A

Type of Connection _____

Type of Backfill around Riser Bentonite chip
 Amount 37.5

Diameter of Borehole 9"

Screen Size or Type _____
 Type of Filter Material N/A
 Amount _____

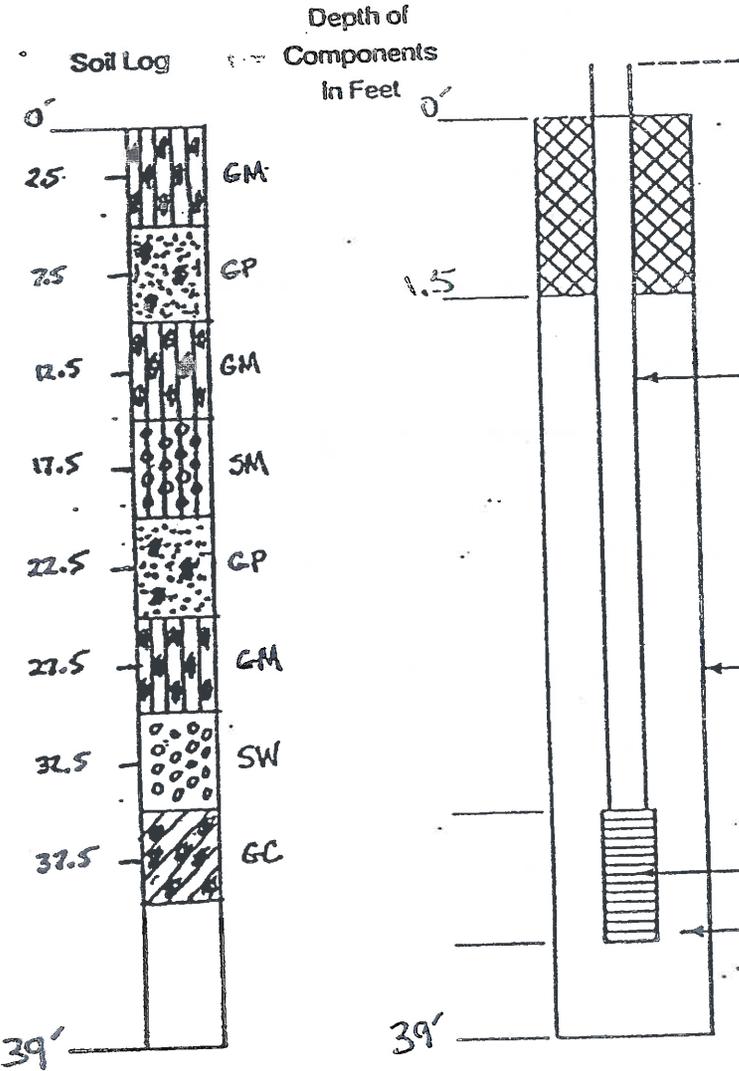
Remarks: Soil Boring Only!

Signature Pat Ternis

Resource Protection Well Report

Project Name Seattle Parks Dept.
 Well Identification # B-2
 Drilling Method 6" HSA
 Driller Pat Turner
 License # 1793
 Job # 39

Date 3-12-19-43
 County King NW 1/4 SE 1/4
 Section 30 T. 25 N R. 4E
 Start Card 202728
 Consulting Firm E.P. Johnson



Stick up N/A on Monument Casing

Type of Surface Seal Concrete
 Amount 1.5

ID of Riser Pipe _____
 Type of Riser Pipe _____
 Amount N/A

Type of Connection _____

Type of Backfill ~~around riser~~ Bentonite chip
 Amount 37.5

Diameter of Borehole 12"

Screen Size or Type _____
 Type of Filter Material N/A
 Amount _____

Remarks: Soil Boring Only!

Signature Pat Turner

Hand Auger Boring Log B-3

Sample	Water Content Percent	Lab Tests	Depth in Feet	SOIL DESCRIPTIONS
			0	Ground Surface Elevation in Feet
S-1			1	6 inch CONCRETE floor slab over (medium dense), wet, moist, brown, slightly silty, gravelly SAND.
			2	CONCRETE floor slab.
S-2			3	(Stiff), moist, yellow-brown, slightly gravelly, slightly sandy, silty CLAY with organics, ash, and metal/rubber-like debris (5% debris) with garbage-like odor.
S-3			6	(Medium dense), damp to moist, brown to black, slightly gravelly, silty, fine SAND with organics, ash, metal, rubber/leather-like debris, glass, and brick (debris ~15%) with garbage-like odor.
S-4			9	Bottom of Hand Auger Boring at 9.0 Feet. Completed 12/7/88.
			10	
			11	
			12	
			13	
			14	
			15	

Hand Auger Boring Log B-4

Sample	Water Content Percent	Lab Tests	Depth in Feet	SOIL DESCRIPTIONS
			0	Ground Surface Elevation in Feet
S-1			1	6 inch CONCRETE floor slab over (medium stiff), damp, brown, slightly gravelly, slightly sandy CLAY with organics, brick, ash-like material, glass, metal debris (<5%).
S-2			5	(Soft), damp, brown, slightly gravelly, slightly sandy, clayey SILT; Very little debris.
S-3			7.5	Bottom of Hand Auger Boring at 7.5 Feet. Completed 12/7/88.
			8	
			9	
			10	
			11	
			12	
			13	
			14	
			15	

1. Refer to Figure C-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Ground water conditions, if indicated, are at time of excavation. Conditions may vary with time.

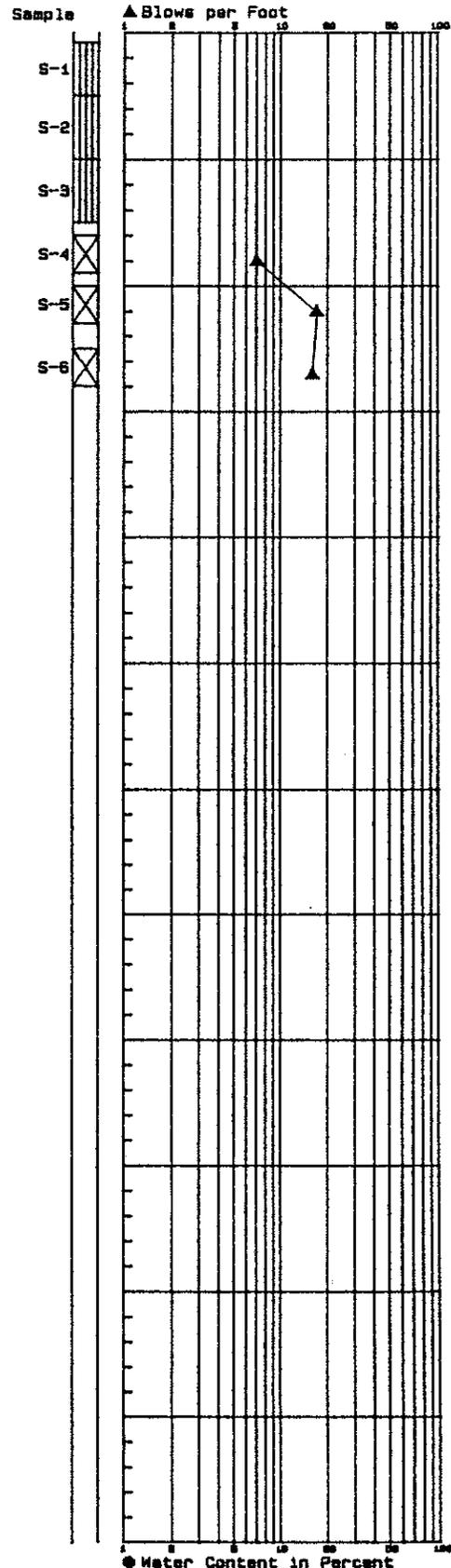
Boring Log B-5

SOIL DESCRIPTIONS

Ground Surface Elevation in Feet

<p>CONCRETE slab.</p> <p>Few brick fragments.</p> <p>Loose to medium dense, moist, brown, gravelly to slightly gravelly, very silty to slightly silty, fine to medium SAND. (FILL)</p>	<p>0</p>
<p>Chunks of silty, gravelly, fine to SAND.</p>	<p>5</p>
<p>Medium dense, moist, gray to light brown, slightly silty, gravelly SAND and interbedded mottled light brown and reddish brown, fine sandy SILT.</p>	<p>10</p>
<p>Bottom of Boring at 14.0 Feet. Completed 12/20/88.</p>	<p>15</p>
<p>Note: Upper portion drilled with hand auger which met refusal at 8-foot-depth. Drilled lower portion with hollow-stem auger drilling rig with split-spoon sampler.</p>	<p>20</p>
	<p>25</p>
	<p>30</p>
	<p>35</p>
	<p>40</p>
	<p>45</p>
	<p>50</p>
	<p>55</p>
	<p>60</p>

STANDARD PENETRATION RESISTANCE



LAB TESTS

--

1. Refer to Figure C-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

Boring Log B-6

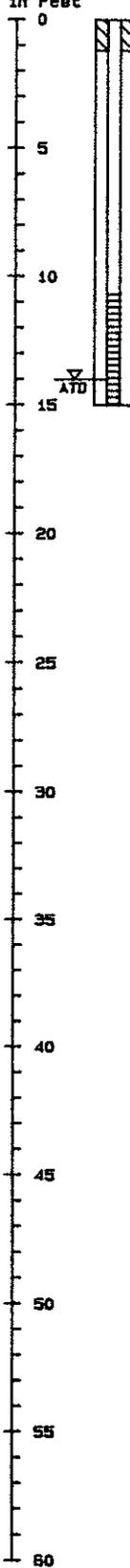
SOIL DESCRIPTIONS

Ground Surface Elevation in Feet

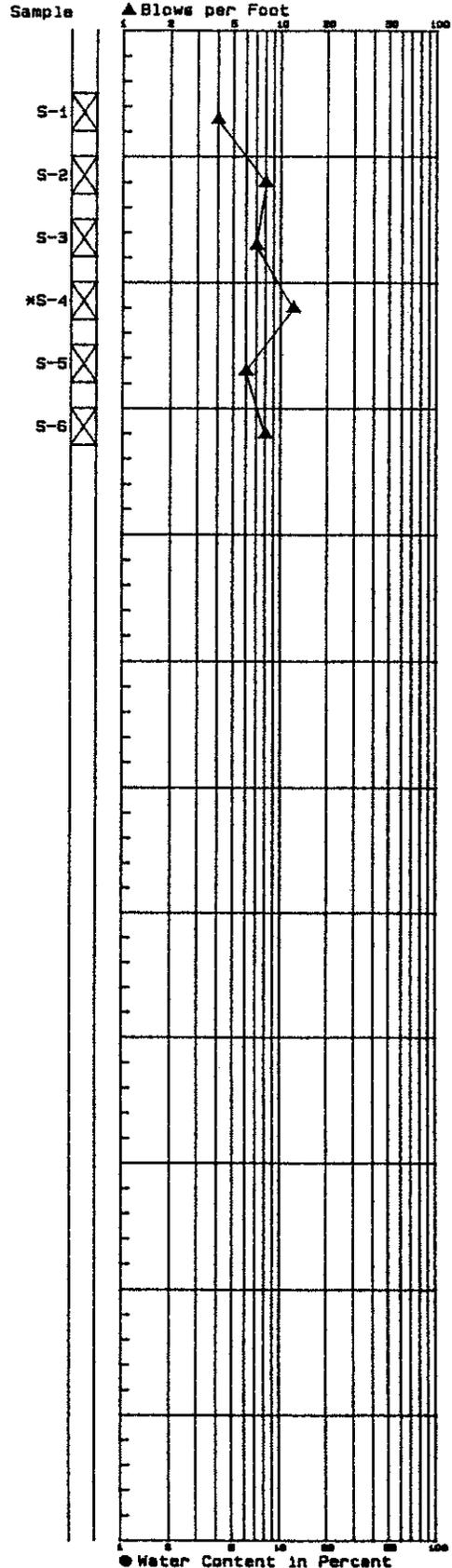
CONCRETE slab.
 Loose to very loose, moist to wet, light brown to gray, slightly silty to silty, slightly gravelly to gravelly SAND. (FILL)
 Interbeds of silty, fine SAND.
 Chunks of fine sandy SILT.

Bottom of Boring at 16.5 Feet.
 Completed 12/10/88.

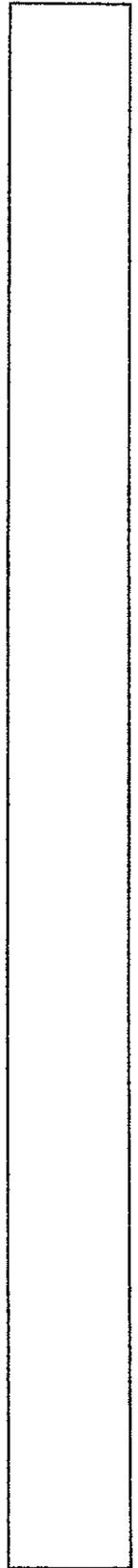
Depth in Feet



STANDARD PENETRATION RESISTANCE



LAB TESTS



1. Refer to Figure C-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

J-2295 December 1988
 HART-CROWSER & associates, inc.
 Figure C-5

Log of Boring, MW1

Analytical Results	Blow Count (per 6 inches)	Sample Recovery (%)	Depth (ft)	Soil Profile	USCS Symbol	Soil Description	PID/Remarks
			0			Concrete Pavement	
					SW	Olive gray, gravelly, medium to coarse SAND.	
						Concrete Pavement	
			5		OL	top 6" - Mottled CLAY: some interlayered fine sand, moist, not wet, mottled green and orange. rest is coarse-grained BUILDING RUBBLE.	OVM = 0.9 ppmv
BT-MW1-5-6.5	2-2-3	56					
			10		SC	top 4" - clayey SILT: moist, brown, breaks easily. next 5" - silty CLAY: blue, will not mold. rest - loose, blue-gray, fine SAND: poorly-graded; moist; blue-gray; strong odor of characteristic of petroleum.	OVM = 6.0 ppmv
BT-MW1-10-11.5 HCID - Diesel WTPH-Diesel - 4,000 ppm 8010 - Methyl. Chlor. 1,100 ppm	4-4-2	67			SC		
BT-MW1-11.5-13.0	4-2-2	72			OL		
BT-MW1-13-14.5	3-3-3	67			OL	top 3" - slough next 4" - clayey-silty-fine SAND: occasional gravel to 1/2" size; moderately-graded; moist; blue. next 3" - CLAY: blue; stiff, will not mold. rest is Loose, blue, fine SAND: poorly-graded; moist; blue; strong odor of petroleum.	OVM = 1.7 ppmv
			15				
			20		SP	top 3" - Loose, silty, fine SAND: poorly-graded; wet; blue-gray; odor of petroleum. rest is clayey SILT: blue-gray, stiff, won't mold.	OVM = 2.5 ppmv
BT-MW1-20-21.5	2-2-2	100				Loose, blue-gray, fine SAND: poorly-graded; wet; blue-gray.	OVM = 0.9 ppmv
						END BORING AT 21.5 FEET	
			25				

enviros

Date Drilled: November 2, 1992
 Geologist/Engineer: RAS
 Equipment: Hollow-stem Auger
 Ground Water Level When Drilling: 13 Feet
 Project Name: Bayside Toyota

A-1

Job No.: 920803.02

Appr.: *[Signature]* Date: 11/20/92

Start Drilled 8/11/2015	End 8/11/2015	Total Depth (ft) 41.5	Logged By CEW Checked By MAG	Driller Geologic Drill, Inc.	Drilling Method Hollow-Stem Auger
Surface Elevation (ft) Vertical Datum 32.5 Approximate		Hammer Data	Rope & Cathead 140 (lbs) / 30 (in) Drop	Drilling Equipment MT52 Mini Track	
Latitude Longitude		System Datum N/A		Groundwater Date Measured	
Notes:				Depth to Water (ft) Elevation (ft) See remarks	

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level				
0						AC	1.5 inches asphalt concrete pavement			
						CC	7 inches portland cement concrete			
2	0-2	1				GP-GM	Brown sandy fine to coarse gravel with silt (moist) (fill)			Encountered concrete slab at approximately 2 feet below grade No sheen, PID = 2 Orange mottling
5	2-5	2	2			SP	Brown fine to coarse sand with gravel and trace silt (very loose, moist)			No sheen, PID = 1.9
10	5-10	6	3			SM	Grayish black silty fine to medium sand (loose, moist)			Wood chips No sheen, PID = 132.7
15	10-15	4	4			ML	Gray silt with sand (soft to stiff, wet)			No sheen, PID = 3.2
20	15-20	3	5	AL				38		AL (LL = 36; PI = 16) No sheen, PID = 3.7
25	20-25	5	6							No sheen, PID = 3.4 Groundwater encountered at approximately 25 feet at time of drilling
30	25-30	11	7	%F				47	59	No sheen, PID = 2.4
35	30-35	23	8			SM	Gray silty fine to medium sand (medium dense, moist to wet) (recent deposits)			No recovery
		26	9	%F				17	43	No sheen, PID = 1.5
						ML	Gray sandy silt (very stiff, wet)			No sheen, PID = 1

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-01



Project: 701 9th Avenue North Development
 Project Location: Seattle, Washington
 Project Number: 20387-003-00

Figure A-2
 Sheet 1 of 2

Ref: 09/15 Path: \\RED\PROJECTS\2020387003\GINT\2038700300.GPJ DBT\template\lib\template\GEOENGINEERS\GDT\GEI - GEOTECHL_STANDARD

Ref: 04/15 Path: \\RED\PROJECTS\2020\387003\GINT\2038700300.GPJ DBT\template\lib\template.GEOENGINEERS\GDT\GEI - GEOTECH - STANDARD

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level				
35	18	22		10 %F				17	56	
35		20		11 %F				22	78	No sheen, PID = 1.9
40	18	33		12			ML			Gray sandy silt (hard, wet) (glacially consolidated deposits) No sheen, PID = 2.7

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-01 (continued)



Project: 701 9th Avenue North Development
 Project Location: Seattle, Washington
 Project Number: 20387-003-00

Start Drilled	8/12/2015	End	8/12/2015	Total Depth (ft)	41.5	Logged By	CEW	Checked By	MAG	Driller	Geologic Drill, Inc.	Drilling Method	Hollow-Stem Auger
Surface Elevation (ft)	32.5			Hammer Data	Rope & Cathead			Drilling Equipment		MT52 Mini Track			
Vertical Datum	Approximate						140 (lbs) / 30 (in) Drop						
Latitude				System Datum	N/A			Groundwater		Date Measured		Depth to Water (ft)	Elevation (ft)
Longitude											See remarks		
Notes:													

Elevation (feet)	FIELD DATA						Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level						
0							AC	1.5 inches asphalt concrete pavement				
							CC	6.5 inches portland cement concrete				
							GP	Brown fine to coarse gravel with sand (fill)			No sheen, PID = <1	
5							SP-SM	Brown fine to medium sand with occasional silt lenses (loose, moist)			Coal pieces	
		10	3								No sheen, PID = <1	
10							SM	Dark brown silty fine to medium sand with organics (loose, moist)			Wood debris	
		10	6								Slight sheen, PID = <1	
15							CL	Gray lean clay (medium stiff, moist to wet)				
		16	4								Slight sheen, PID = 2.6	
20							ML	Gray sandy silt (medium stiff, moist to wet)				
		16	5						26	62	No sheen, PID = <1	
25							CL	Gray lean clay (soft, wet)				
		16	3						25	71	No sheen, PID = <1	
		12	6				SM	Gray silty fine to medium sand with 1-inch layer of organics (loose, wet) (recent deposits)	48	45	Groundwater encountered at approximately 25 feet at time of drilling	
		18	4								No sheen, PID = <1	
		18	6				ML	Grades to gray-brown Gray lean clay (medium stiff, wet)			No sheen, PID = <1	
		18	6						25	68	No sheen, PID = <1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-02



Project: 701 9th Avenue North Development
 Project Location: Seattle, Washington
 Project Number: 20387-003-00

Ref: 09/15 Path: \\REDIP\PROJECTS\2020\20387003\GIN\2038700300.GPJ DBT_Template\Lib\template\GEOENGINEERS\GDT\GEI - GEOTECH_STANDARD

Ref: 04/15 Path: \\RED\PROJECTS\2020387003\GINT\2038700300.GPJ DBT\template\lib\template.GEOENGINEERS\GDT\GEIR_GEOTECHL_STANDARD

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level				
35	18	18		10%				18	32	No sheen, PID = <1
35	9	55		11			SM	Gray silty fine to medium sand with gravel (medium dense to very dense, wet) (glacially consolidated deposits)		No sheen, PID = <1
40	8	33		12						No sheen, PID = <1

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-02 (continued)



Project: 701 9th Avenue North Development
 Project Location: Seattle, Washington
 Project Number: 20387-003-00

Start Drilled	8/12/2015	End	8/12/2015	Total Depth (ft)	41.5	Logged By	CEW	Checked By	MAG	Driller	Geologic Drill, Inc.	Drilling Method	Hollow-Stem Auger
Surface Elevation (ft)	32.5			Hammer Data	Rope & Cathead			Drilling Equipment		MT52 Mini Track			
Vertical Datum	Approximate						140 (lbs) / 30 (in) Drop						
Latitude				System Datum	N/A			Groundwater		Date Measured		Depth to Water (ft)	Elevation (ft)
Longitude											See remarks		
Notes:													

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level				
0						AC	3 inches asphalt concrete pavement			
						CC	5 inches portland cement concrete			
						SM	Brown silty fine to medium sand with occasional gravel (moist) (fill)			No sheen, PID = <1
5		18	5				Grades to light brown (loose, moist)			No sheen, PID = <1
10		18	6							No sheen, PID = <1
15		18	17			SM	Gray silty fine to medium sand with gravel (loose to medium dense, moist to wet)			Orange mottling
20		18	5				Grades to gray with occasional gravel			No sheen, PID = <1
25		14	6				Grades to with gravel	18	18	No sheen, PID = <1 Groundwater encountered at approximately 25 feet at time of drilling
30		18	3			ML	Gray sandy silt (very loose, wet) (recent deposits)	25	30	No sheen, PID = <1 Occasional wood debris
30		18	13			SM	Gray silty fine to medium sand (medium dense, wet)	15	22	No sheen, PID = <1
35		18	26							No sheen, PID = <1

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-03



Project: 701 9th Avenue North Development
 Project Location: Seattle, Washington
 Project Number: 20387-003-00

Figure A-4
 Sheet 1 of 2

Refmond: Date: 9/4/15 Path: \\REDIP\PROJECTS\2020387003\GIN\20387003.GPJ DBT\template\lib\template\GEOENGINEERS\GDT\GEI - GEOTECHL_STANDARD

Ref: 04/15 Path: \\RED\PROJECTS\2020387003\GINT\2038700300.GPJ DBT\template\lib\template\GEOENGINEERS\GDT\GEI_B_GEOTECHL_STANDARD

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level				
35	15	17		10 %			Grades to with silt lenses	16	45	
35	15	32		11			Gray sandy silt (hard, wet) (glacially consolidated deposits)			No sheen, PID = <1
40	14	33		12						No sheen, PID = <1

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-03 (continued)



Project: 701 9th Avenue North Development
 Project Location: Seattle, Washington
 Project Number: 20387-003-00

Start Drilled 8/11/2015	End 8/11/2015	Total Depth (ft) 41.5	Logged By CEW Checked By MAG	Driller Geologic Drill, Inc.	Drilling Method Hollow-Stem Auger
Surface Elevation (ft) Vertical Datum 32.5 Approximate		Hammer Data	Rope & Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment MT52 Mini Track
Latitude Longitude		System Datum	N/A		Groundwater Date Measured
Notes:				Depth to Water (ft)	Elevation (ft)
				See remarks	

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS	
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level					
0							AC CC SM			1 inch asphalt concrete pavement 6 inches portland cement concrete Light brown silty fine to medium sand (moist) (fill)	No sheen, PID = <1
5	11	7		2						Grades to brown with occasional peat lenses (loose to medium dense, moist)	No sheen, PID = <1
10	18	6		3						Grades to with occasional gravel	No sheen, PID = <1
15	18	7		4							No sheen, PID = <1
20	18	10		5						Grades to with trace gravel	No sheen, PID = <1
25	18	7		6 %F			SP-SM	22	14	Gray fine to medium sand with silt (loose, wet)	Groundwater encountered at approximately 25 feet at time of drilling No sheen, PID = <1
30	18	*		7			SM			Gray silty fine to medium sand (medium dense, wet) (recent deposits)	*No blowcount due to bailer No sheen, PID = <1
35	18	18		8 %F				21	30	Grades to with occasional brown sand lenses	No sheen, PID = <1
	18	6		9			CL			Gray lean clay (medium stiff, wet)	No sheen, PID = <1
							SM				

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-04B



Project: 701 9th Avenue North Development
 Project Location: Seattle, Washington
 Project Number: 20387-003-00

Refmond: Date: 9/4/15 Path: \\RED\PROJECTS\2020\20387003\GIN\20387003.GPJ DBT\template\lib\template\GEOENGINEERS\GDT\GEI - GEOTECHL - STANDARD

Ref: 04/15 Path: \\RED\PROJECTS\2020\387003\GINT\2038700300.GPJ DBT\template\lib\template.GEOENGINEERS\GDT\GEI_B_GEOTECHL_STANDARD

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level				
35	18	36		10			SM	Gray silty fine to medium sand with silt lenses (medium dense to dense, wet)		No sheen, PID = <1
34	18	24		11			ML	Gray silt (very stiff, wet) (glacially consolidated deposits)		No sheen, PID = 1.6
40	16	31		12						No sheen, PID = <1

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-04B (continued)



Project: 701 9th Avenue North Development
 Project Location: Seattle, Washington
 Project Number: 20387-003-00



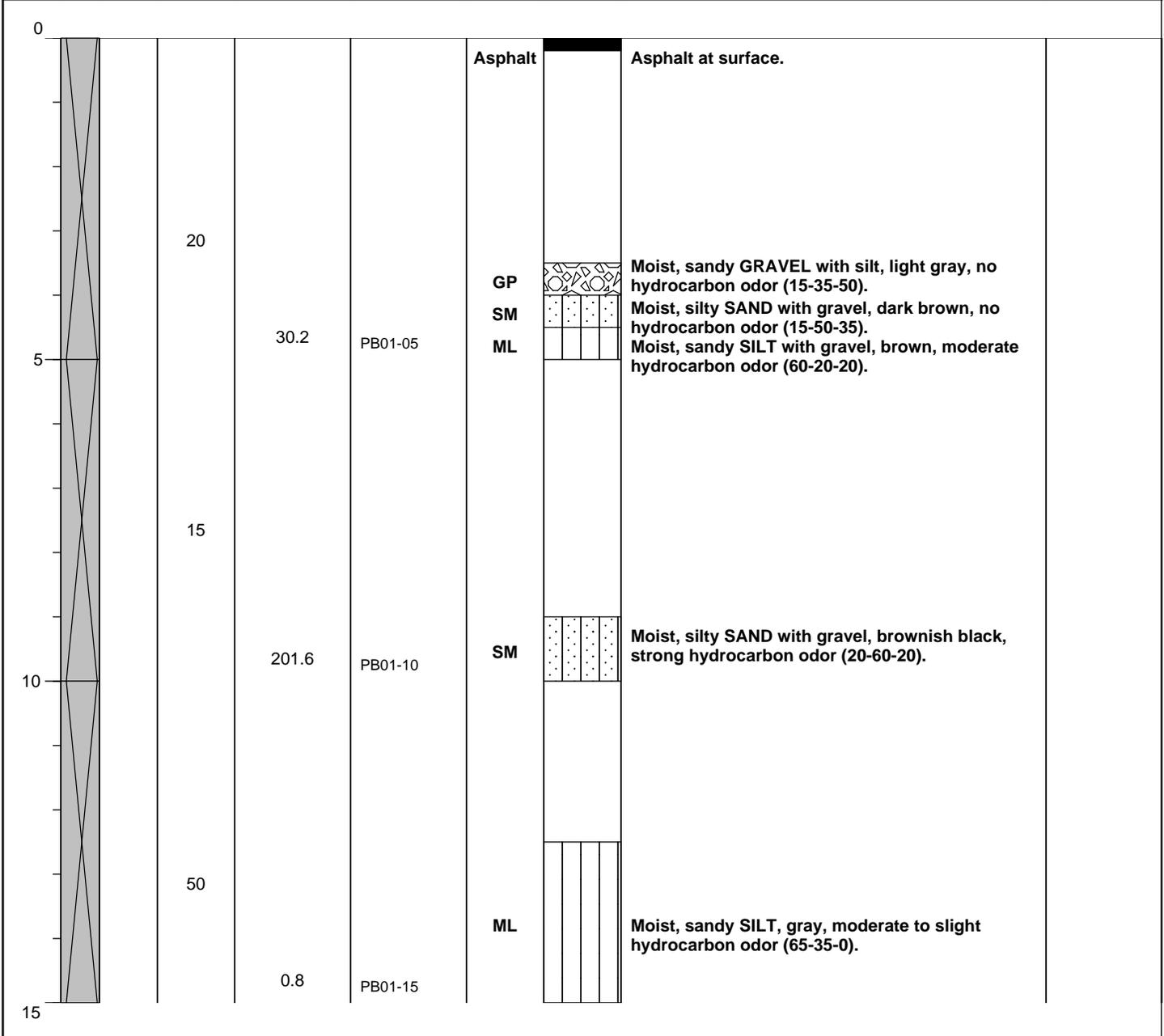
Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 15.5' South
Well Location E/W: 9.5' East
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB01

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
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Drilling Co./Driller: Holt/Louie Drilling Equipment: Pushprobe Sampler Type: Continuous Hammer Type/Weight: -- lbs Total Boring Depth: 25 feet bgs Total Well Depth: -- feet bgs State Well ID No.: --	Well/Auger Diameter: -- inches Well Screened Interval: -- feet bgs Screen Slot Size: -- inches Filter Pack Used: -- Surface Seal: -- Annular Seal: -- Monument Type: --	Notes/Comments: N/S and E/W measurements taken from NW corner of garage.
Page:		1 of 2



Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 15.5' South
Well Location E/W: 9.5' East
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB01

Site Address: 701 9th Avenue North
 Seattle, Washington

Water Depth At Time of Drilling 20 feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
15									
			55						
				0.0	PB01-20	ML		Moist, well consolidated, sandy SILT, dark gray, no hydrocarbon odor (60-40-0).	
20								Driller reports water at about 20' bgs.	
			60			ML		Moist, well consolidated, sandy SILT with clay, no hydrocarbon odor, dark gray (75-25-0).	
25					PB01-25			End of boring at 25 feet bgs. Backfilled with bentonite chips to surface grade.	
30									

Drilling Co./Driller: Holt/Louie
Drilling Equipment: Pushprobe
Sampler Type: Continuous
Hammer Type/Weight: -- lbs
Total Boring Depth: 25 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
 N/S and E/W measurements taken from NW corner of garage.



Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 6' North
Well Location E/W: 19.5' East
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB02

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						Asphalt		Asphalt at surface.	
4.6		40		4.6	PB02-05	GP		Moist, sandy GRAVEL with silt, light gray, no hydrocarbon odor (10-35-55).	
5						SM		Moist, silty SAND with gravel, brown, no hydrocarbon odor (20-70-10).	
10		40		0.0	PB02-10	ML		Moist, sandy SILT with organic material and glass, brownish red, no hydrocarbon odor (30-65-5). (FILL)	
						ML		Same as above to 12' bgs.	
15		75		1.1	PB02-15	ML		Moist, sandy SILT, gray, no hydrocarbon odor (70-30-0).	

Drilling Co./Driller: Holt/Louie
Drilling Equipment: Pushprobe
Sampler Type: Continuous
Hammer Type/Weight: -- lbs
Total Boring Depth: 25 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
 N/S and E/W measurements taken from SW corner of garage.



Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 6' North
Well Location E/W: 19.5' East
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB02

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
15			90			SM		Moist, gravelly SAND with silt, brown, no hydrocarbon odor (15-60-25).	
				0.2	PB02-20	ML		Moist, sandy SILT, gray, no hydrocarbon odor (70-30-0).	
20			80			SM		Moist, gravelly SAND with silt, brown, no hydrocarbon odor (10-85-15).	
						ML		Moist, sandy SILT, gray, no hydrocarbon odor (30-40-0).	
				0.1	PB02-25	SM		Moist, silty SAND, gray, no hydrocarbon odor (30-70-0).	
25	End of boring at 25 feet bgs. Backfilled with bentonite chips to surface grade.								
30									

Drilling Co./Driller: Holt/Louie
Drilling Equipment: Pushprobe
Sampler Type: Continuous
Hammer Type/Weight: -- lbs
Total Boring Depth: 25 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
 N/S and E/W measurements taken from SW corner of garage.



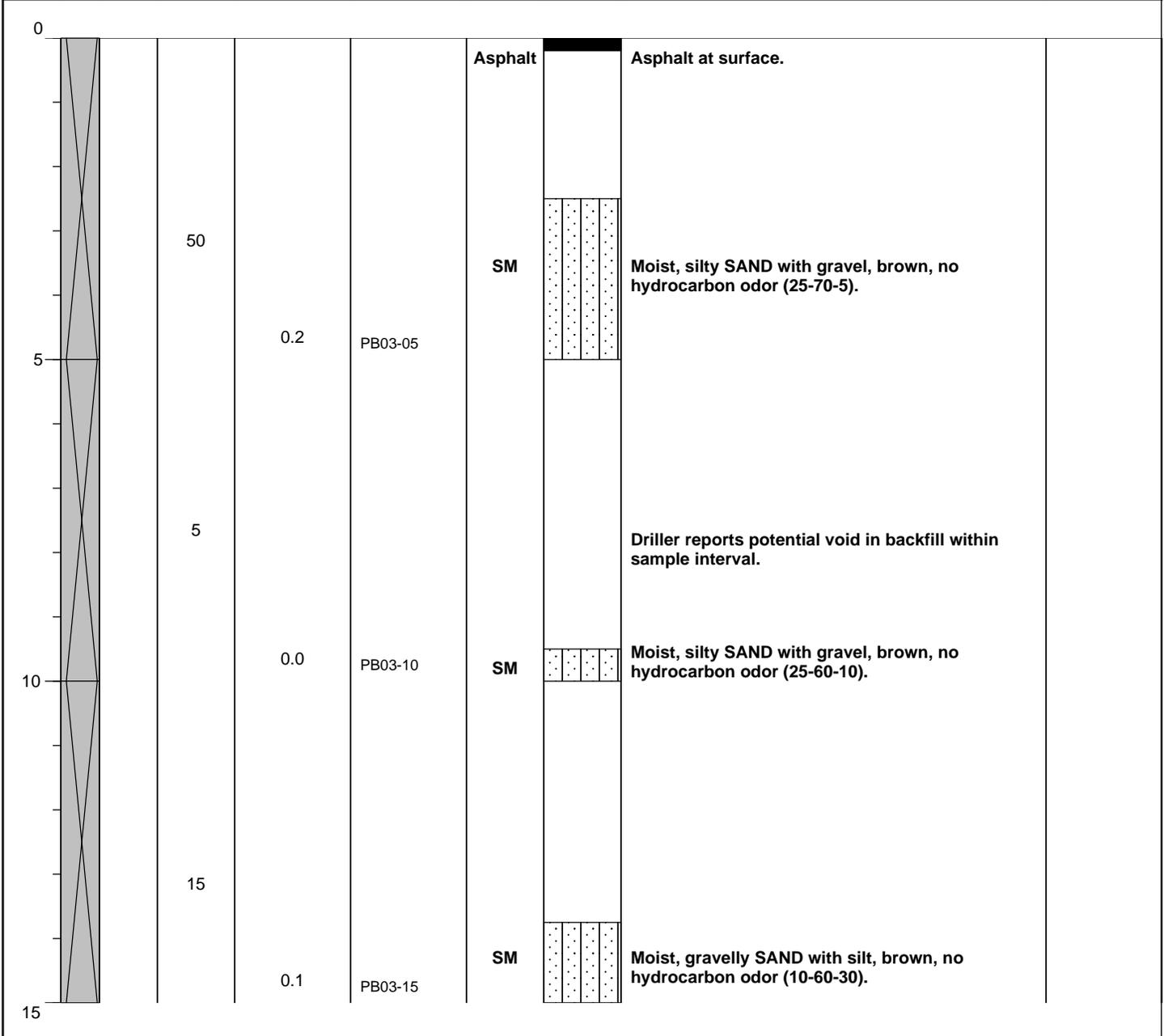
Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 29' South
Well Location E/W: 8.5' West
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB03

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
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Drilling Co./Driller: Holt/Louie Drilling Equipment: Pushprobe Sampler Type: Continuous Hammer Type/Weight: -- lbs Total Boring Depth: 25 feet bgs Total Well Depth: -- feet bgs State Well ID No.: --	Well/Auger Diameter: -- inches Well Screened Interval: -- feet bgs Screen Slot Size: -- inches Filter Pack Used: -- Surface Seal: -- Annular Seal: -- Monument Type: --	Notes/Comments: N/S and E/W measurements taken from NE corner of garage.
Page:		1 of 2



Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 29' South
Well Location E/W: 8.5' West
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB03

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
15			60			SM		Moist, silty SAND with gravel, brown, no hydrocarbon odor (15-80-5).	
20				0.2	PB03-20	SM		Moist, silty SAND with gravel and clay, gray and brown, no hydrocarbon odor (30-60-10).	
25			40			SM		Moist, silty SAND with gravel, brown, no hydrocarbon odor (20-75-5).	
				0.2	PB03-25	SM		Moist, silty SAND with gravel, gray, no hydrocarbon odor (40-55-5).	
								End of boring at 25 feet bgs. Backfilled with bentonite chips to surface grade.	
30									

Drilling Co./Driller: Holt/Louie
Drilling Equipment: Pushprobe
Sampler Type: Continuous
Hammer Type/Weight: -- lbs
Total Boring Depth: 25 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
 N/S and E/W measurements taken from NE corner of garage.



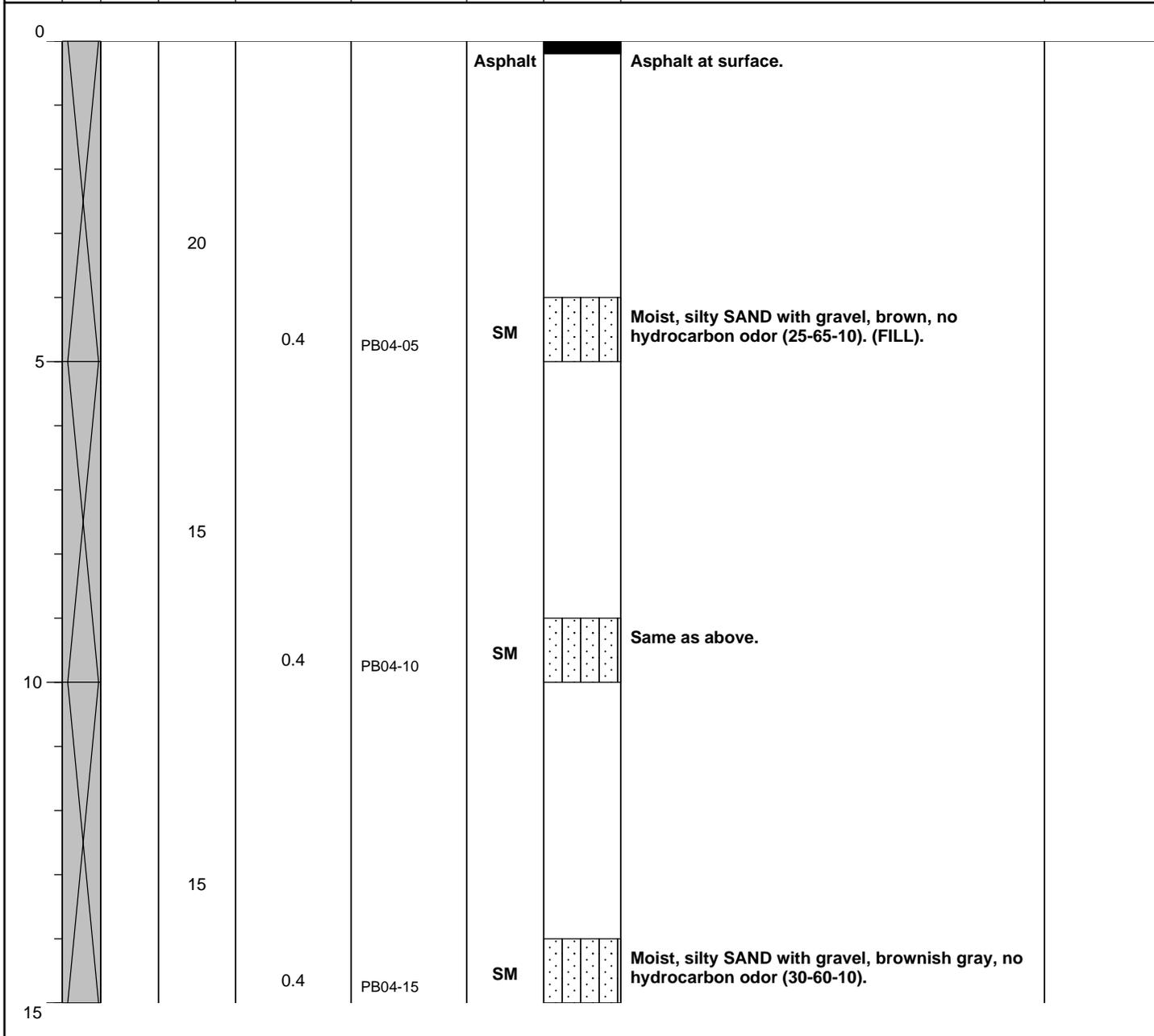
Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 39.5' North
Well Location E/W: 24.5' West
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB04

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
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Drilling Co./Driller: Holt/Louie Drilling Equipment: Pushprobe Sampler Type: Continuous Hammer Type/Weight: -- lbs Total Boring Depth: 25 feet bgs Total Well Depth: -- feet bgs State Well ID No.: --	Well/Auger Diameter: -- inches Well Screened Interval: -- feet bgs Screen Slot Size: -- inches Filter Pack Used: -- Surface Seal: -- Annular Seal: -- Monument Type: --	Notes/Comments: N/S and E/W measurements taken from SE corner of garage.
Page:		1 of 2



Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 39.5' North
Well Location E/W: 24.5' West
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB04

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
15			50						
20				0.2	PB04-20	SM		Same as above.	
						SM		Moist, silty SAND with gravel, and organic material, black, no hydrocarbon odor (25-65-10).	
						SM		Moist, silty SAND with gravel, gray, no hydrocarbon odor (25-75-5).	
			40						
						SM		Same as above.	
25				0.1	PB04-25	SM		Moist, silty SAND, gray, no hydrocarbon odor (35-65-0).	
								End of boring at 25 feet bgs. Backfilled with bentonite chips to surface grade.	
30									

Drilling Co./Driller: Holt/Louie
Drilling Equipment: Pushprobe
Sampler Type: Continuous
Hammer Type/Weight: -- lbs
Total Boring Depth: 25 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
 N/S and E/W measurements taken from SE corner of garage.



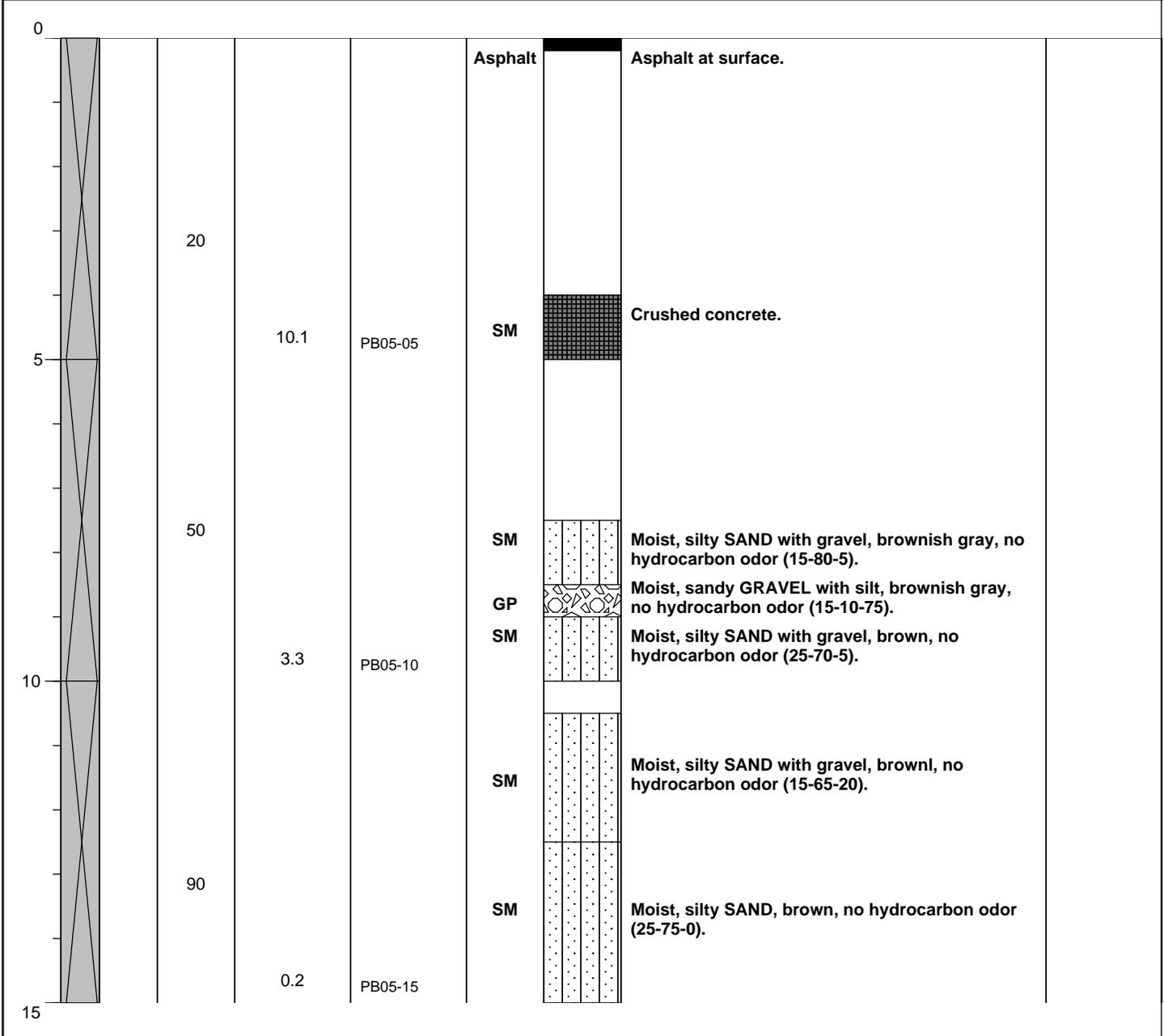
Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 1.5' North
Well Location E/W: 26.5' West
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB05

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
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Drilling Co./Driller: Holt/Louie Drilling Equipment: Pushprobe Sampler Type: Continuous Hammer Type/Weight: -- lbs Total Boring Depth: 25 feet bgs Total Well Depth: -- feet bgs State Well ID No.: --	Well/Auger Diameter: -- inches Well Screened Interval: -- feet bgs Screen Slot Size: -- inches Filter Pack Used: -- Surface Seal: -- Annular Seal: -- Monument Type: --	Notes/Comments: N/S and E/W measurements taken from SE corner of garage. Boring angled at 30 degrees from vertical.
Page:		1 of 2



Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 1.5' North
Well Location E/W: 26.5' West
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB05

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
15									
			50						
				0.8	PB05-20	SM		Driller reports sluff in sampler due to angled boring and soft material. Moist, silty SAND with gravel, dark gray, no hydrocarbon odor (20-70-10).	
20									
			100			SM		Moist, well consolidated, silty SAND with gravel, gray, no hydrocarbon odor (25-70-5).	
				0.4	PB05-25				
25								End of boring at 25 feet bgs. Backfilled with bentonite chips to surface grade.	
30									

Drilling Co./Driller: Holt/Louie
Drilling Equipment: Pushprobe
Sampler Type: Continuous
Hammer Type/Weight: -- lbs
Total Boring Depth: 25 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
 N/S and E/W measurements taken from SE corner of garage.
 Boring angled at 30 degrees from vertical.



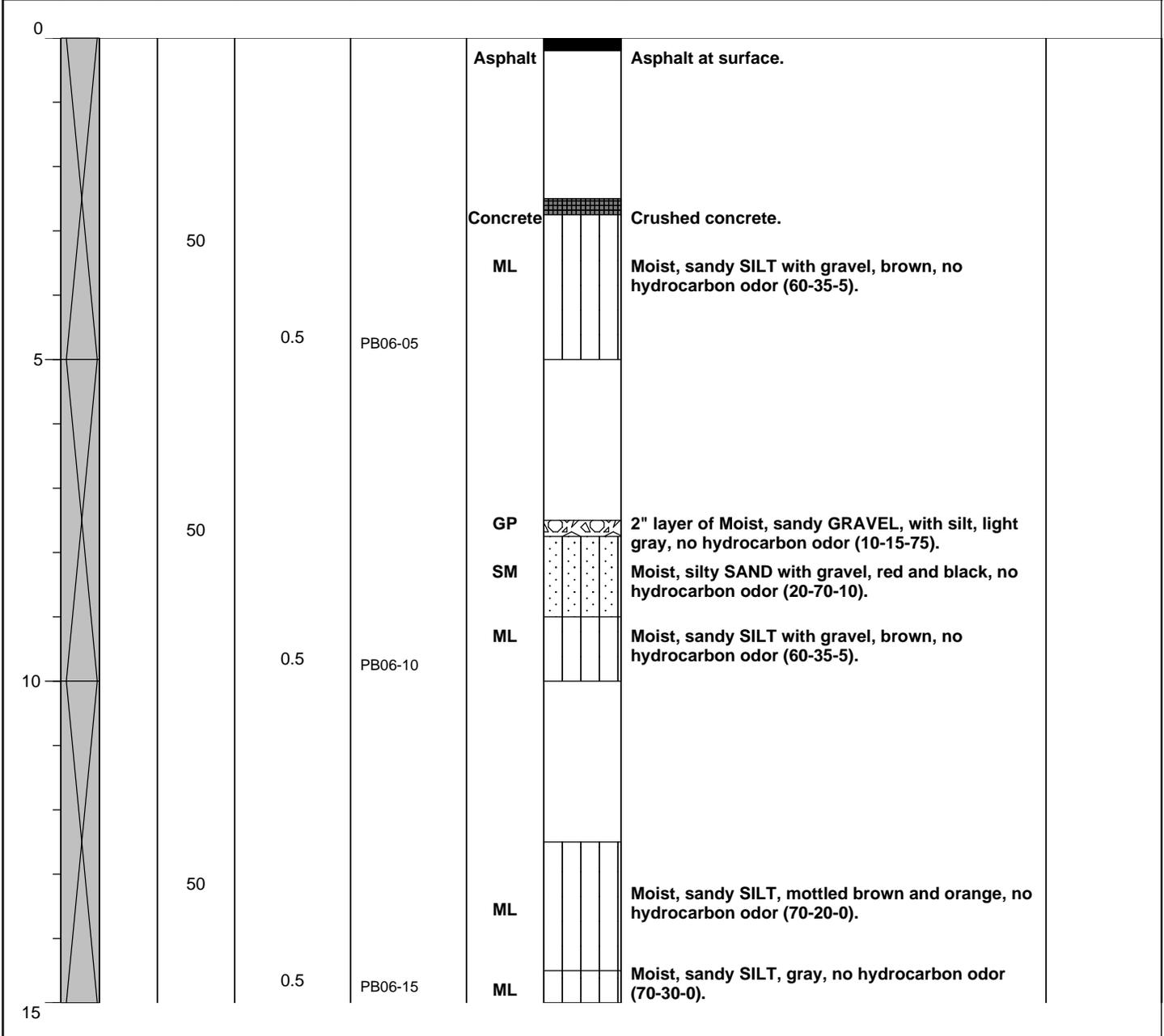
Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 48.5' North
Well Location E/W: 51' West
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB06

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
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Drilling Co./Driller: Holt/Louie Drilling Equipment: Pushprobe Sampler Type: Continuous Hammer Type/Weight: -- lbs Total Boring Depth: 25 feet bgs Total Well Depth: -- feet bgs State Well ID No.: --	Well/Auger Diameter: -- inches Well Screened Interval: -- feet bgs Screen Slot Size: -- inches Filter Pack Used: -- Surface Seal: -- Annular Seal: -- Monument Type: --	Notes/Comments: N/S and E/W measurements taken from SE corner of garage.
Page:		1 of 2



Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 48.5' North
Well Location E/W: 51' West
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB06

Site Address: 701 9th Avenue North
 Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
15			50						
20				0.3	PB06-20	SM		Moist, silty SAND with gravel, gray, no hydrocarbon odor (20-70-10).	
25			45			SM		Moist, silty coarser SAND, gray, no hydrocarbon odor (25-75-0).	
25				0.4	PB06-25			End of boring at 25 feet bgs. Backfilled with bentonite chips to surface grade.	
30									

Drilling Co./Driller: Holt/Louie
Drilling Equipment: Pushprobe
Sampler Type: Continuous
Hammer Type/Weight: -- lbs
Total Boring Depth: 25 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
 N/S and E/W measurements taken from SE corner of garage.



Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 14.5' South
Well Location E/W: 35' East
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB07

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						Asphalt		Asphalt at surface.	
						Concrete		Crushed concrete.	
			50			SM		Moist, silty SAND with gravel, gray, no hydrocarbon odor (20-70-10).	
5				0.5	PB07-05	ML		Moist, sandy SILT, mottled gray and orange, no hydrocarbon odor (65-35-0).	
			50			SM		Moist, silty SAND with glass and organics, black, gray, and red, no hydrocarbon odor (30-65-5).	
10				0.7	PB07-10				
			55			SM		Same as above.	
						SM-ML		Moist, silty SAND to sandy SILT, gray, no hydrocarbon odor (40-60-0) to (70-30-0).	
15				0.5	PB07-15				

Drilling Co./Driller: Holt/Louie
Drilling Equipment: Pushprobe
Sampler Type: Continuous
Hammer Type/Weight: -- lbs
Total Boring Depth: 25 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
 N/S and E/W measurements taken from NW corner of garage.



Project: Buca di Beppos/Ducati
Project Number: 0996-007
Logged by: CMP
Date Started: 9/5/2014
Surface Conditions: Asphalt
Well Location N/S: 14.5' South
Well Location E/W: 35' East
Reviewed by: CCC
Date Completed: 9/5/2014

BORING LOG | PB07

Site Address: 701 9th Avenue North
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
 Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
15									
			60			SM-ML		Same as above.	
20				0.4	PB07-20	ML		Moist, sandy SILT, gray, no hydrocarbon odor (80-20-0).	
			40			SM		Moist, silty SAND, gray, no hydrocarbon odor (35-65-0).	
25				0.4	PB07-25			End of boring at 25 feet bgs. Backfilled with bentonite chips to surface grade.	
30									

Drilling Co./Driller: Holt/Louie
Drilling Equipment: Pushprobe
Sampler Type: Continuous
Hammer Type/Weight: -- lbs
Total Boring Depth: 25 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: -- inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: --
Annular Seal: --
Monument Type: --

Notes/Comments:
 N/S and E/W measurements taken from NW corner of garage.

Log of Boring, SB1

Analytical Results	Blow Count (per 6 inches)	Sample Recovery (%)	Depth (ft)	Soil Profile	USCS Symbol	Soil Description	PID/Remarks
BT-SB1-5-6.5 WTPH-418.1 - 94 ppm	2-2-1	89	0			Concrete Pavement	OVM = 0.0 ppmv
				SW	Olive gray, gravelly, medium to coarse SAND.		
					Concrete Pavement		
			5		SM	top 9" - sandy SILT: gravels (30%); moderately poorly-graded; dry; stiff; crumbles; golden-brown in color. rest is Rubble with silty matrix, some black material similar to asphalt present.	
			10			END BORING AT 6.5 FEET	
			15				
			20				
			25				

enviros

Date Drilled: November 3, 1992
 Geologist/Engineer: RAS
 Equipment: Hollow-stem Auger
 Ground Water Level When Drilling: NA
 Project Name: Bayside Toyota

A-2

Job No.: 920803.02

Appr.: *Kas* Date: 11/20/92



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
<p>Concrete</p> <p>Sch. 40 PVC Casing</p> <p>Bentonite Chips</p>	NR	MW-328-5	60		0		BLACKISH BROWN ORGANIC SOIL WITH SAND (OL), moist, fine to coarse sand
					2		GRAYISH BROWN SILTY SAND (SM), moist, fine to medium, some fines (FILL)
					4		Air knife & vac to 5 feet
					6		GRAYISH BROWN SILTY SAND WITH GRAVEL (SM), moist, some gravel, some fines, brick fragments (FILL)
					8		GRAYISH BROWN SANDY SILT (ML), moist, some sand, few gravel
					10		
					12		
					14		
					16		GRAY SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, some fines, some gravel, fines "sticky", grass and sticks scattered throughout sample, appears very loose and soft
					18		
		MW-328-20	72		20		
			36		24		
					26		
					28		
		MW-328-30			30		GRAY SILTY SAND (SM), wet, fine to coarse, little fines, few gravel, grading finer with depth
					32		
					34		
		MW-328-35	120		36		BROWN SANDY SILT (ML), little sand, substantial amount of organic matter that appears similar to sawdust
					38		
					40		

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: H. Small
 Notes: BMF-572

Total Drilled Depth: 80 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/16/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
	NR	MW-328-40			42		GRAY SAND WITH SILT (SP), wet, fine to medium, few fines
					44		GRAY SANDY SILT (ML), wet, little sand, little clay at 43 feet: sample collected for physical analysis
		MW-328-45	120		46		GRAY SILTY SAND (SM), wet, fine to medium, trace gravel
		MW-328-50			50		GRAY SILTY SAND (SM), fine to medium, little fines, silt clasts in sand 2-3-inches in length
		MW-328-55	120		54		GRAY SILTY SAND (SM), fine to medium, little fines, silt clasts in sand 2-3-inches in length
		MW-328-60			60		GRAY SILTY SAND (SM), fine to medium, little fines, silt clasts in sand 2-3-inches in length
		MW-328-65	120		64		GRAY SAND (SP), wet, fine to medium, few fines
		MW-328-70			70		GRAY SAND (SP), wet, fine to medium, few fines at 70 feet: sample collected for physical analysis
MW-328-75	120		74		GRAY SAND (SP), wet, fine to medium, few fines		
MW-328-80			78		GRAY SAND (SP), wet, fine to medium, few fines		

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: H. Small
 Notes: BMF-572

Total Drilled Depth: 80 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/16/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
					82		Bottom of Boring at 80 feet NR = Not Recorded
					84		Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand
					86		Total Well Depth: 74.8 feet Well Sump/Endcap: 74.5 to 74.8 feet Well Screen: 64.5 to 74.5 feet Well Riser: 0.3 to 64.5 feet Filter Pack: 62 to 74.8 feet Well Seal: 4 to 62 feet (hydrated bentonite chips) Surface Seal: 0 to 4 feet (concrete) Well Monument: Flush with grade 8-inch steel monument
					88		
					90		
					92		
					94		
					96		
					98		
					100		
					102		
					104		
					106		
					108		
					110		
					112		
					114		
					116		
					118		
					120		

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: H. Small
 Notes: BMF-572

Total Drilled Depth: 80 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/16/19
 Drilled By: Hoyt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
Concrete					0		Concrete
					2		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to medium, some fine to coarse subangular to subrounded gravel (up to 2-inch diameter), trace cobbles (FILL)
					4		Air knife & vac to 5 feet
		MW-329-5	60		6		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, some fine to coarse gravel, little fines
	0.0				8		
	0.0				10		
Bentonite Chips		MW-329-10			10		
	0.0				12		
	0.1				12		BROWN SILTY GRAVEL WITH SAND (GM), moist, fine to coarse, some fine to coarse sand, little fines
	0.0				14		
	0.0	MW-329-15	102		14		
	0.0				16		
	0.0				18		BROWN SILTY SAND WITH GRAVEL (SM), moist, fine to coarse, little fine to coarse gravel, little fines
	0.0				20		at 20 feet: wet
Sch. 40 PVC Casing		MW-329-20			20		
	0.0				22		
	0.0				24		
	0.0	MW-329-25	120		24		
	0.0				26		
	0.0				28		DARK BROWN ORGANIC SOIL WITH SAND (OL), wet, little fine sand
	0.0				30		GRAY SILTY SAND (SM), wet, fine to medium, little fines, few gravel
	0.0	MW-329-30			30		
	0.0				32		
	0.0				34		GRAY SILT WITH SAND (ML), wet, little fine to medium sand, occasional sand lenses up to 2-inch thick
	0.0				36		
	0.0	MW-329-35	120		36		
	0.0				38		
	0.0				40		

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: H. Small
 Notes: BMF-571

Total Drilled Depth: 110 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/12/19 - 9/13/19
 Drilled By: Holt Services
 Drill Method: Sonic



Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description	
	0.0	MW-329-40			42		GRAY SILTY SAND (SM), wet, fine to medium, little fines, grading finer with depth	
	0.0				44			
	0.0	MW-329-45	120		46			
	0.0				48			GRAY SILT WITH SAND (ML), wet, little fine sand
	0.0	MW-329-50			50			
	0.0				52			
	0.0				54			GRAY SAND WITH SILT (SP), wet, fine to medium, few fines, few gravel, occasional silty sand lenses up to 6-inch thick
	0.0	MW-329-55	120		56			
	0.0				58			
	0.0	MW-329-60			60			
0.0				62				
0.0	MW-329-65	120		64				
0.0				66				
0.0				68				
0.0	MW-329-70			70		at 70 feet: sample collected for physical analysis		
0.0				72				
0.0				74				
0.2	MW-329-75	108		76				
0.0				78				
0.0				80				

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: H. Small
 Notes: BMF-571

Total Drilled Depth: 110 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/12/19 - 9/13/19
 Drilled By: Holt Services
 Drill Method: Sonic

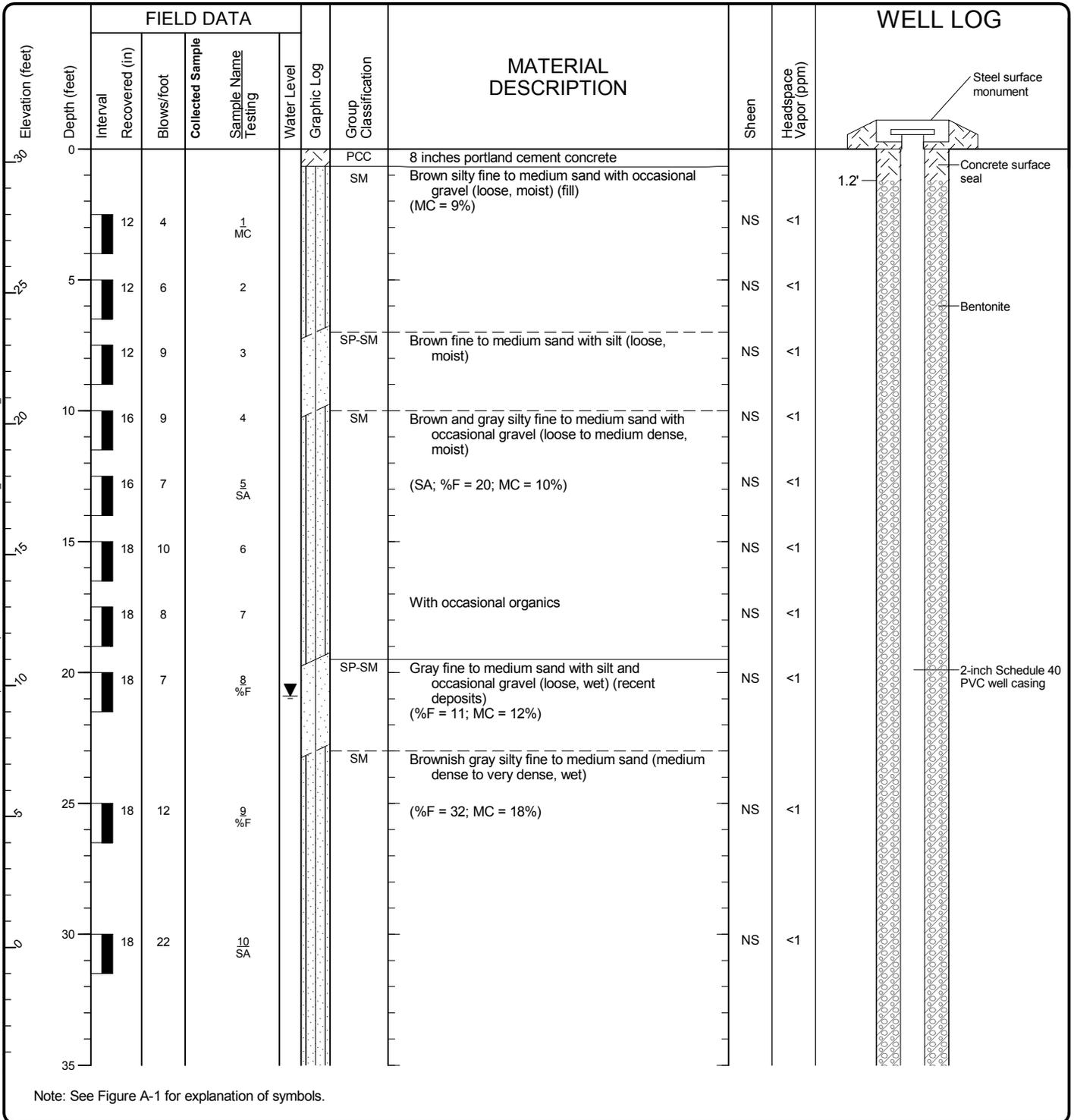


Well Completion	PID (PPM)	Sample ID	Sample Recovery (in)	Sample Interval	Depth (Feet)	Graphic Log	Lithologic Description
<p>Bentonite Chips</p> <p>Sch. 40 PVC Casing</p> <p>#12-20 Silica Sand</p> <p>0.020-inch Sch. 40 PVC Screen</p> <p>End Cap</p> <p>Native Material</p>	0.0	MW-329-80			82		
	0.0				84		GRAY SILTY SAND (SM), wet, fine to medium, little fines
	0.0	MW-329-85	108		86		
	0.0				88		GRAY SAND WITH SILT (SP), wet, fine to medium, few fines, occasional cobbles (up to 5-inch diameter)
	0.0	MW-329-90			90		
	0.0				92		
	0.0				94		GRAY SILTY SAND (SM), wet, fine to medium, little fines, few gravel
	0.0	MW-329-95	120		96		
	0.0				98		GRAY SAND WITH SILT (SP), wet, fine to medium, few fines, few gravel
	NR	MW-329-100			100		GRAY SILTY SAND WITH GRAVEL (SM), wet, fine to coarse, little fines, little fine to coarse gravel
					102		
				104		at 103 feet: fines decrease	
	MW-329-105	120		104		at 105 feet: sample collected for physical analysis	
				106			
				108		at 107: some gravel	
		MW-329-110			110		Bottom of Boring at 110 feet NR = Not Recorded
					112		Well Completion Details: Well constructed with 2-inch Schedule 40 PVC pipe and a 0.020-inch machine slotted screen with #12-20 Sand
					114		Total Well Depth: 108.5 feet Well Sump/Endcap: 107.7 to 108 feet Well Screen: 97.7 to 107.7 feet Well Riser: 0.3 to 97.7 feet Filter Pack: 95 to 108.5 feet Well Seal: 2 to 95 feet (hydrated bentonite chips) Surface Seal: 0 to 2 feet (concrete) Well Monument: Flush with grade 8-inch steel monument
					116		
					118		
					120		

Project: Former American Linen Supply
 Project Number: 1413.001.02.501B
 Site Location: Seattle, WA
 Logged By: H. Small
 Notes: BMF-571

Total Drilled Depth: 110 feet
 Diameter of Boring: 6 inches
 Drill Date: 9/12/19 - 9/13/19
 Drilled By: Holt Services
 Drill Method: Sonic

Start Drilled 8/22/2014	End 8/22/2014	Total Depth (ft) 61.5	Logged By Checked By GP DPC	Driller Geologic Drill, Inc.	Drilling Method Hollow-Stem Auger
Hammer Data Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment Diedrich D50 Turbo	DOE Well I.D.: BIJ 490 A 2 (in) well was installed on 8/22/2014 to a depth of 59.8 (ft).			
Surface Elevation (ft) Vertical Datum 30.5 NAVD88	Top of Casing Elevation (ft) 30.10	Groundwater Date Measured 9/6/2014	Depth to Water (ft) 20.9	Elevation (ft) 9.6	
Easting (X) Northing (Y)	Horizontal Datum	Notes:			

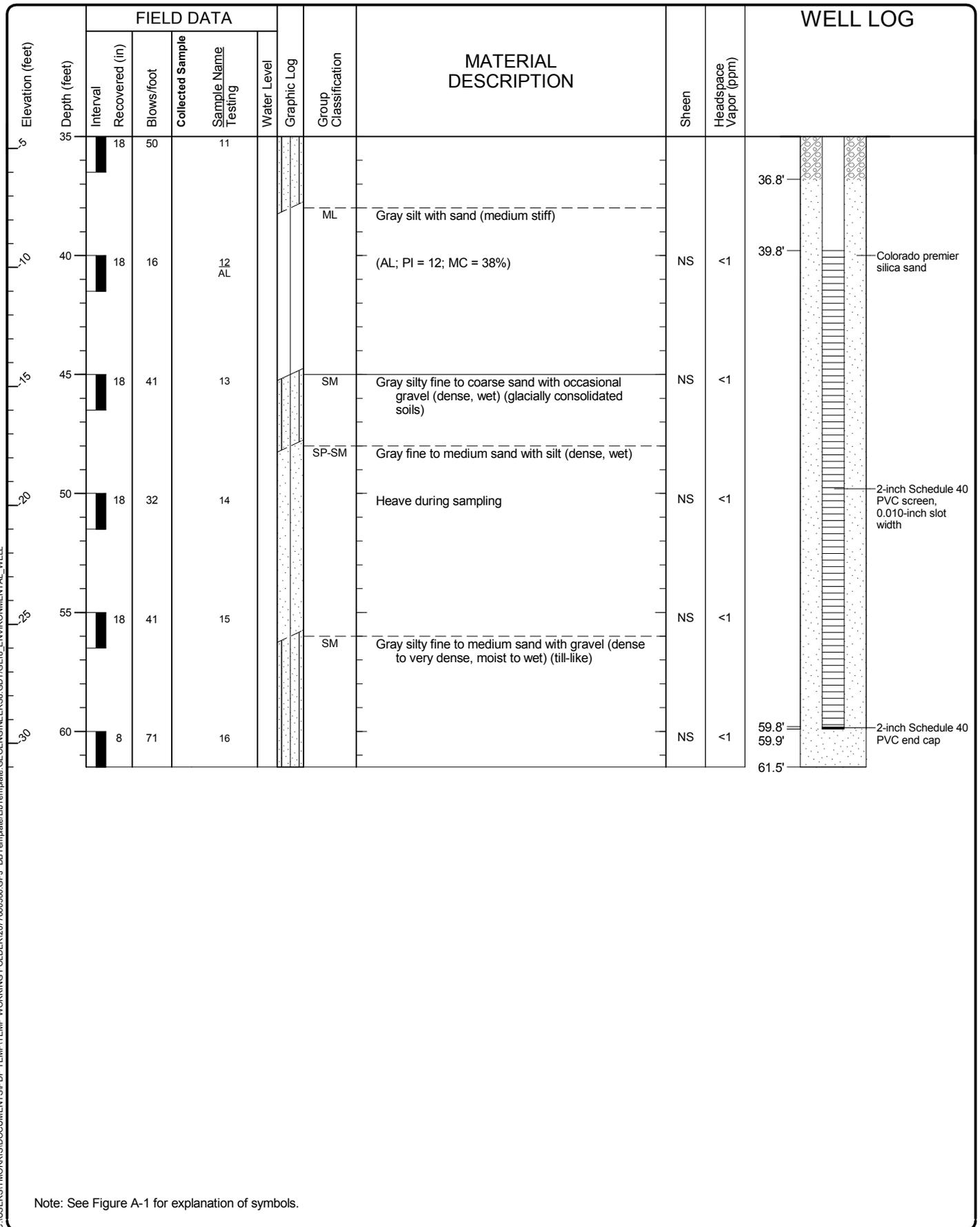


Log of Monitoring Well MW-1



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Redmond: Date: 9/18/14 Path: C:\Users\TMORRIS\DOCUMENTS\PDF\TEMP\WORKING FOLDER\2077600300.GPJ DBT Template\LT\Template: GEOENGINEERS8.GDT\GEB_ENVIRONMENTAL_WELL



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well MW-1 (continued)

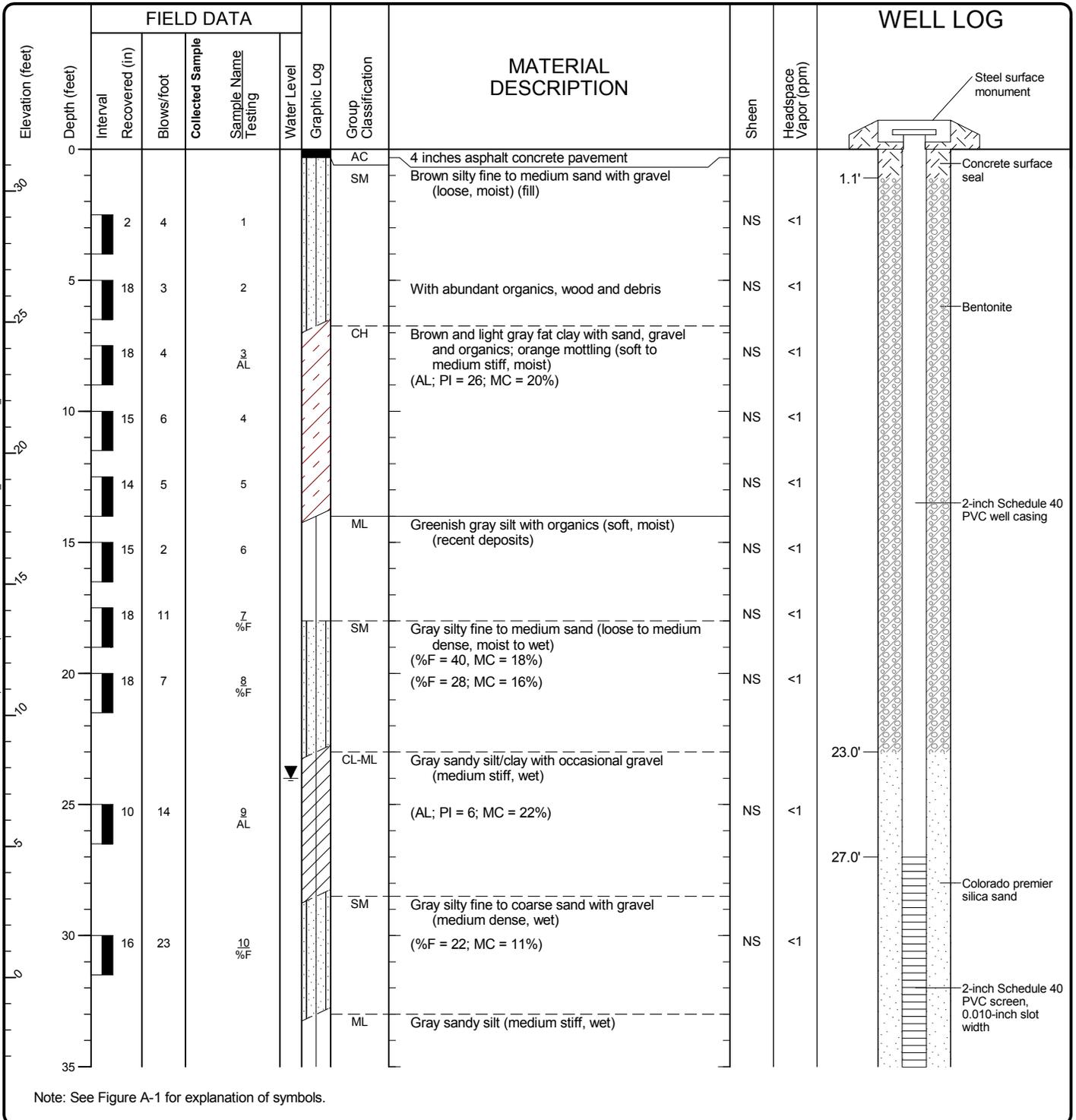


Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Figure A-2
 Sheet 2 of 2

Redmond: Date: 9/18/14 Path: C:\Users\TMORRIS\Documents\SPDF_TEMP\TEMP WORKING FOLDER\2077600300.GPJ DBTemplate\libTemplate: GEOENGINEERS8.GDT\GEI8_ENVIRONMENTAL_WELL

Drilled	Start 8/23/2014	End 8/23/2014	Total Depth (ft)	60	Logged By Checked By	GP DPC	Driller	Geologic Drill, Inc.	Drilling Method	Hollow-Stem Auger
Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment		Diedrich D50 Turbo		DOE Well I.D.: BIJ 492 A 2 (in) well was installed on 8/23/2014 to a depth of 37 (ft).			
Surface Elevation (ft)		31.6		Top of Casing Elevation (ft)		31.00		Groundwater		
Vertical Datum		NAVD88		Date Measured		9/6/2014		Depth to Water (ft)		Elevation (ft)
Easting (X) Northing (Y)		Horizontal Datum		Date Measured		9/6/2014		Depth to Water (ft)		Elevation (ft)
								24.0		7.6
Notes:										

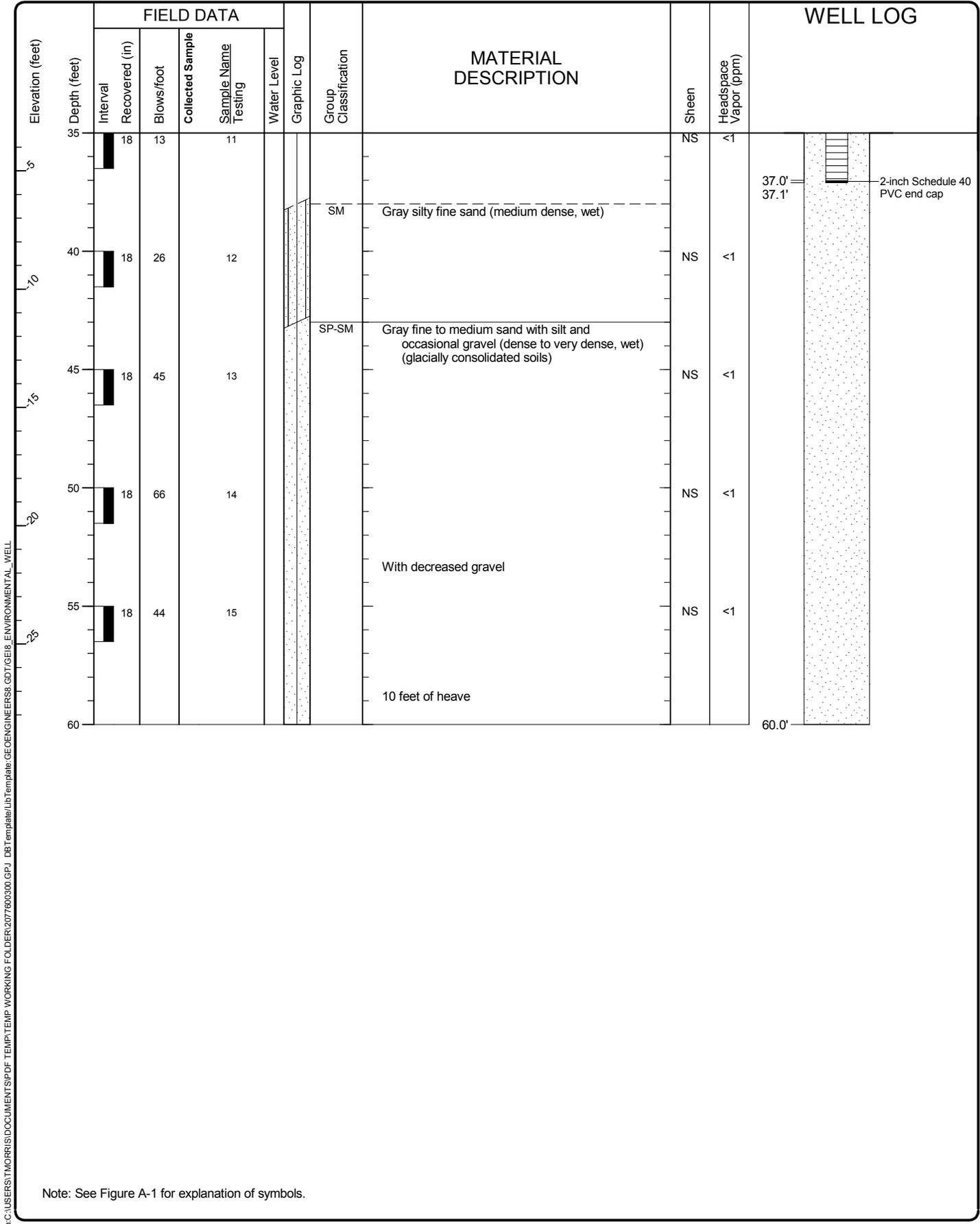


Log of Monitoring Well MW-2



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Redmond: Date: 9/18/14 Path: C:\Users\TMORRIS\DOCUMENTS\TEMP\WORKING FOLDER\2077600300.GPJ DBT Template\10 Template: GEOENGINEERS8.GDT\GEB_ENVIRONMENTAL_WELL



Note: See Figure A-1 for explanation of symbols.

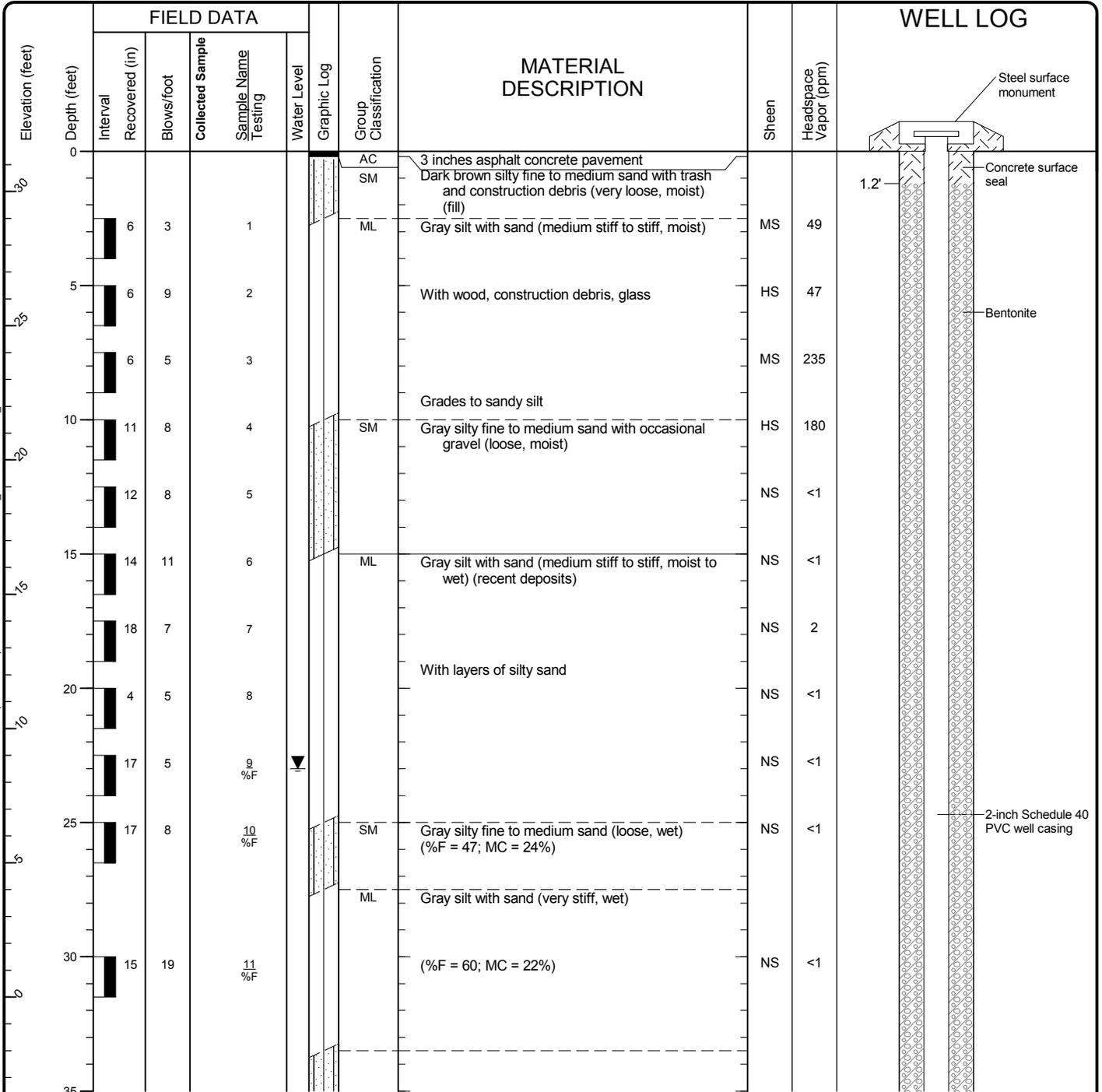
Log of Monitoring Well MW-2 (continued)



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Redmond: Date: 9/18/14 Path: C:\Users\TMORRIS\Documents\SPDF_TEMP\TEMP_WORKING_FOLDER\2077600300.GPJ DBTemplate\libTemplate: GEOENGINEERS8.GDT\GEI6_ENVIRONMENTAL_WELL

Start Drilled 8/23/2014	End 8/23/2014	Total Depth (ft) 65.5	Logged By Checked By GP DPC	Driller Geologic Drill, Inc.	Drilling Method Hollow-Stem Auger
Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Diedrich D50 Turbo		DOE Well I.D.: BIJ 491 A 2 (in) well was installed on 8/24/2014 to a depth of 59.4 (ft).
Surface Elevation (ft) Vertical Datum	31.5 NAVD88	Top of Casing Elevation (ft)	30.75		Groundwater Date Measured
Easting (X) Northing (Y)		Horizontal Datum			9/6/2014
			Depth to Water (ft)	23.0	
			Elevation (ft)	8.5	
Notes:					



Note: See Figure A-1 for explanation of symbols.

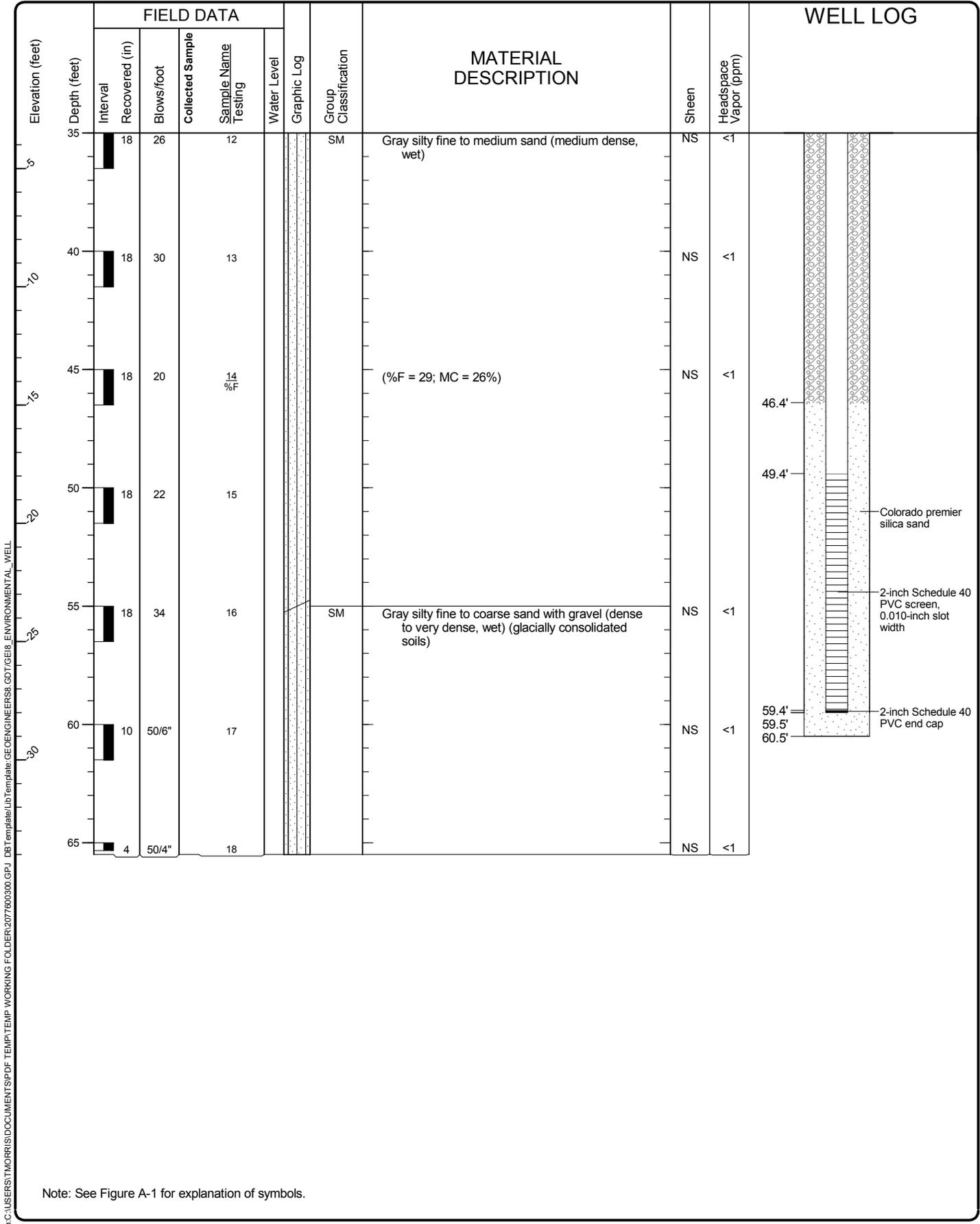
Log of Monitoring Well MW-3



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Figure A-4
 Sheet 1 of 2

Redmond: Date: 9/18/14 Path: C:\Users\TMORRIS\Documents\TEMP\TEMP WORKING FOLDER\2077600300.GPJ DB Template\lib\template: GEOENGINEERS8.GDT\GEI8_ENVIRONMENTAL_WELL



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well MW-3 (continued)



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Redmond: Date: 9/18/14 Path: C:\Users\TMORRIS\Documents\SPDF_TEMP\TEMP WORKING FOLDER\2077600300.GPJ DB Template\lib\Template: GEOENGINEERS8.GDT\GEB_ENVIRONMENTAL_WELL

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	15	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous	
Surface Elevation (ft) Vertical Datum					Undetermined			Hammer Data		Drilling Equipment	
Easting (X) Northing (Y)					System Datum			Groundwater		Depth to Water (ft)	Elevation (ft)
Notes:											

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS	
	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing					Water Level
0		24						CC	6-inches concrete		
					1			SM	Brown silty fine to coarse sand with occasional gravel (loose to medium dense, moist) (fill)		
									Grades to gray	SS	<1
5		48			2						
					3				With orange mottling and sand lenses <1-inch thick	NS	<1
									Grades to with gravel	NS	<1
10		40			4			SM	Gray silty fine to coarse sand with gravel (medium dense, moist) (native?)	NS	<1
					5					NS	<1
15					6			ML	Gray sandy silt (medium stiff, moist)	NS	<1

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-1



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	15	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous
Surface Elevation (ft) Vertical Datum			Undetermined		Hammer Data		Drilling Equipment			
Easting (X) Northing (Y)			System Datum		Groundwater		Date Measured	Depth to Water (ft)	Elevation (ft)	
Notes:										

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS	
	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing					Water Level
0		30						CC	6-inches concrete		
					1			SM	Brown silty fine to coarse sand with gravel and debris (nails, glass shards, chert-like rock) (loose, moist) (fill) With decomposing wood	MS	<1
5		40			2			Trash	Grades to gray Trash fill, sand size particles, decomposing wood and brick fragments	NS	<1
					3					NS	<1
10		36			4			SM		HS	48
					5			ML	Gray sandy silt with occasional gravel (medium stiff, moist) (native?)	NS	<1
15					6					NS	<1

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-2



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Figure A-7
 Sheet 1 of 1

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	15	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous	
Surface Elevation (ft) Vertical Datum					Undetermined			Hammer Data		Drilling Equipment	
Easting (X) Northing (Y)					System Datum			Groundwater		Date Measured	
Notes:								Depth to Water (ft)		Elevation (ft)	

Elevation (feet)	FIELD DATA						Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing							
0		50						CC	6½-inches concrete				
					1			SM	Brown silty fine to coarse sand (loose, moist) (fill)				
					2			SM	Light brown to gray silty fine to medium sand (with orange mottling) (loose, moist)	SS	<1		
5		56			3				With occasional gravel	NS	<1		
					4			SM	Light gray silty fine to coarse sand with gravel (with orange mottling) (loose, moist)	NS	<1		
					5					NS	<1		
10		58			6			SM	Gray silty fine to coarse sand with gravel (medium dense, moist) (native)	NS	<1		
15										NS	<1		

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-3



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	20	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous
Surface Elevation (ft) Vertical Datum			Undetermined			Hammer Data			Drilling Equipment	
Easting (X) Northing (Y)			System Datum			Groundwater		Date Measured	Depth to Water (ft)	Elevation (ft)
Notes:										

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS		
	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing					Water Level	Graphic Log
0		39						CC	6- to 7-inches concrete			
					1			SM	Gray silty fine to coarse sand with gravel (loose, moist) (fill) With burned debris and wood (medium dense, moist)	SS	<1	
5		47			2			SP-SM	Gray fine to coarse sand with silt and occasional gravel (medium dense, moist)	SS	<1	
					3					SS	<1	
10		45			4			ML	Gray silt (medium dense, moist)	NS	<1	
					5			SM	Gray-tan silty fine to coarse sand with occasional gravel (loose, moist) With increasing silt content and decreasing gravel content Grades to loose to medium dense	SS	<1	
15		45			6					SS	<1	Oil odor?
					7			SM	Gray silty fine to coarse sand with fine to coarse gravel (loose, moist)			
					8				Becomes dark gray with occasional gravel (medium dense, moist)			
20								ML	Dark gray silt (medium dense, moist) (native)	NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-4



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Refmond: Date: 9/29/14 Path: C:\USERS\KJANCI\DESKTOP\2077600300.GPJ DBTTemplate\libTemplate.GE\ENGINEERS.GDT\GEIR_ENVIRONMENTAL_STANDARD

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	15	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous	
Surface Elevation (ft) Vertical Datum					Undetermined			Hammer Data		Drilling Equipment	
Easting (X) Northing (Y)					System Datum			Groundwater		Date Measured	
Notes:								Depth to Water (ft)		Elevation (ft)	

Elevation (feet)	FIELD DATA						Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing								
0		36						CC	6-inches concrete				
								SM	Gray sand with silt, gravel and burned wood debris (loose, moist) (fill)				
					1			ML	Gray silt with sand and burned wood debris (with orange mottling) (soft, moist)	SS	<1		
5		47			2			SM	Gray silty fine to coarse sand with occasional gravel (loose, moist)	NS	<1		
					3				Grades to loose to medium dense with 4-inch sandy silt lens	MS	<1		
					4					SS	<1		
10		52			5					SS	<1		
					6			ML	Gray sandy silt with occasional coarse gravel (medium dense, moist)	SS	<1		

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-5



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Refmond: Date: 9/29/14 Path: C:\USERS\KJANCI\DESKTOP\2077600300.GPJ DBTTemplate\libTemplate.GE\ENGINEERS.GDT\GEIR_ENVIRONMENTAL_STANDARD

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	15	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous	
Surface Elevation (ft) Vertical Datum			Undetermined			Hammer Data		Drilling Equipment			
Easting (X) Northing (Y)			System Datum			Groundwater		Date Measured		Depth to Water (ft)	Elevation (ft)
Notes:											

Elevation (feet)	FIELD DATA						Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing							
0		41						CC	6-inches concrete	SS	<1		
					1			SM	Gray-brown silty fine to coarse sand (loose, moist) (fill)	SS	<1		
					2			SM	Tan-brown silty fine to medium sand (loose, moist) With white sticky plastic material and orange mottling	SS	<1		
5		42						SP-SM	With reddish brown silt, becomes soft Gray-brown fine to coarse sand with silt and occasional gravel (loose, moist)	NS	<1		
					3				With increasing silt content	SS	<1		
10		46			4			SM	Gray silty fine to coarse sand (medium dense, moist) (native?) With 2-inch silt lens	NS	<1		
					5				Grades to with gravel	NS	<1		
15					6					NS	<1		

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-6



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Figure A-11
 Sheet 1 of 1

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	13	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous	
Surface Elevation (ft) Vertical Datum					Undetermined			Hammer Data		Drilling Equipment	
Easting (X) Northing (Y)					System Datum			Groundwater		Date Measured	
Notes:								Depth to Water (ft)		Elevation (ft)	

Elevation (feet)	FIELD DATA						Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level					
0	38			1			SM	Brown silty fine to coarse sand with gravel (loose, moist) (fill)	NS	<1	
5	36			2				Grades to black with decomposing wood and nails	SS	<1	
10	36			3			SM	Dark gray silty fine to coarse sand (loose, moist)	HS	80	
									HS	70	
									HS	240	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-7



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Refmond: Date: 9/29/14 Path: C:\USERS\KJANCI\DESKTOP\2077600300.GPJ DBTTemplate\libTemplate.GE\ENGINEERS.GDT\GEIR_ENVIRONMENTAL_STANDARD

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	35	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous	
Surface Elevation (ft) Vertical Datum					Undetermined			Hammer Data		Drilling Equipment	
Easting (X) Northing (Y)					System Datum			Groundwater		Date Measured	
Notes:								Depth to Water (ft)		Elevation (ft)	

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS		
	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing					Water Level	Graphic Log
0		50						SM	Brown silty fine to coarse sand with gravel (loose, moist)	NS	<1	
5		35						Trash	Trash layer with decomposing wood and glass shards	HS	30	With odor
									Becomes black with decomposing wood and silt	HS	410	With odor
10		40						ML	Gray silt with sand (soft, moist)	NS	<1	With odor
										HS	28	With odor
15		50								SS	7	
										NS	50	
20		24						SM	Gray silty fine to medium sand with occasional gravel (loose, moist)	NS	55	
										NS	28	
25		22						ML	Gray silt with sand (soft, moist to wet) (native?)	NS	20	
									With occasional gravel	NS	9	
30		36							With gravel			
									Becomes wet			
35										NS	6	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-8



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	20	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous	
Surface Elevation (ft) Vertical Datum					Undetermined			Hammer Data		Drilling Equipment	
Easting (X) Northing (Y)					System Datum			Groundwater		Date Measured	
Notes:								Depth to Water (ft)		Elevation (ft)	

Elevation (feet)	FIELD DATA						Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level					
0	40					CC	6½-inches concrete				
				1		SM	Tan to gray silty fine to coarse sand with gravel and wood debris (loose, moist)	MS	<1		
5	37			2		Trash	Sand-sized particles of debris (wood, glass, ceramics) (loose, moist)	MS	<1		Petroleum odor
				3		ML	Tan-brown silt with fine to medium sand and occasional gravel (soft, moist) (fill)	HS	17		Petroleum odor
				4		SP-SM	Gray fine to medium sand with silt and occasional gravel (loose, dry to moist)	HS	385		
10	37										
				5		ML	Gray silt with fine to medium sand and occasional gravel (medium stiff, moist) (native?)	NS	5		
15	32										
				6							
20											

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-9



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Figure A-14
 Sheet 1 of 1

Refmond: Date: 9/29/14 Path: C:\USERS\KJANCI\DESKTOP\2077600300.GPJ DBTTemplate\LIBTemplate.GE\ENGINEERS.GDT\GEIR_ENVIRONMENTAL_STANDARD

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	15	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous	
Surface Elevation (ft) Vertical Datum					Undetermined			Hammer Data		Drilling Equipment	
Easting (X) Northing (Y)					System Datum			Groundwater		Date Measured	
Notes:								Depth to Water (ft)		Elevation (ft)	

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing				
0		42								
					1					
5		46								
10		42			2					
15										

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-10



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Drilled	Start 9/6/2014	End 9/6/2014	Total Depth (ft)	15	Logged By Checked By	GHP	Driller	Cascade Drilling, LP	Drilling Method	Continuous	
Surface Elevation (ft) Vertical Datum					Undetermined			Hammer Data		Drilling Equipment	
Easting (X) Northing (Y)					System Datum			Groundwater		Depth to Water (ft)	Elevation (ft)
Notes:											

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS	
	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing					Water Level
0			55					AC	3-inches asphalt concrete		
								SM	Brown silty fine to coarse sand with gravel (loose, moist) (fill)		
					1			ML	Brown to gray silt with sand (soft, moist)	NS	<1
					2				Grades to gray		
5			24								
					3			Trash	Black debris with decomposing wood, glass shards and sand-sized debris particles (loose, moist)	SS	<1
					4						
					5						
10			30					ML	Gray sandy silt with decomposing wood and glass sharges (medium stiff, moist)	SS	<1
					6				With glass and metal debris	NS	<1
									With occasional gravel, no debris (native?)		
15										NS	<1

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-12



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Drilled	Start 8/24/2014	End 8/24/2014	Total Depth (ft)	63	Logged By Checked By	GP DPC	Driller	Geologic Drill, Inc.	Drilling Method	Hollow-Stem Auger
Surface Elevation (ft) Vertical Datum	31 NAVD88			Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop			Drilling Equipment	Diedrich D50 Turbo	
Easting (X) Northing (Y)				System Datum				Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
Notes:										

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level				
0							PCC SM			
		17	6		1 %F			NS	<1	%F = 33; MC = 11%
5		6	1		2			NS	<1	
		7	5		3		ML	NS	<1	
10		17	4		4			NS	<1	
		12	10		5		ML	NS	<1	3-inch silty sand layer
15		16	9		6			NS	<1	
20		18	4		7			NS	<1	
25		16	6		8 %F			NS	<1	%F = 89; MC = 71%
30		18	30		9		SM	NS	<1	
35										

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-4



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

Redmond: Date: 9/18/14 Path: C:\Users\TMORRIS\DOCUMENTS\TEMP\TEMP WORKING FOLDER\2077600300.GPJ DBTemplate\LTTemplate: GEOENGINEERS8.GDT\GEI6_ENVIRONMENTAL_STANDARD

Redmond: Date: 9/18/14 Path: C:\Users\TMORRIS\Documents\SPDF_TEMP\TEMP_WORKING_FOLDER\2077600300.GPJ DB: Template\10\Template: GEOENGINEERS8.GDT\GEI6_ENVIRONMENTAL_STANDARD

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level				
35	8	44		10			SM Gray silty fine to medium sand with gravel and occasional cobbles (medium dense to very dense, wet) (glacially consolidated soils) Increased gravel content	NS	<1	Difficult drilling
40	10	57		11		NS		<1		
45	12	33		12		NS		<1		
50	12	54		13		NS		<1		
55	8	22		14		NS		<1	Gravel in sampler	
60	12	50/6"		16		NS		<1	Till-like	
	5	50/5"		17						

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-4 (continued)



Project: South Lake Union Marriott AC
 Project Location: Seattle, Washington
 Project Number: 20776-003-00

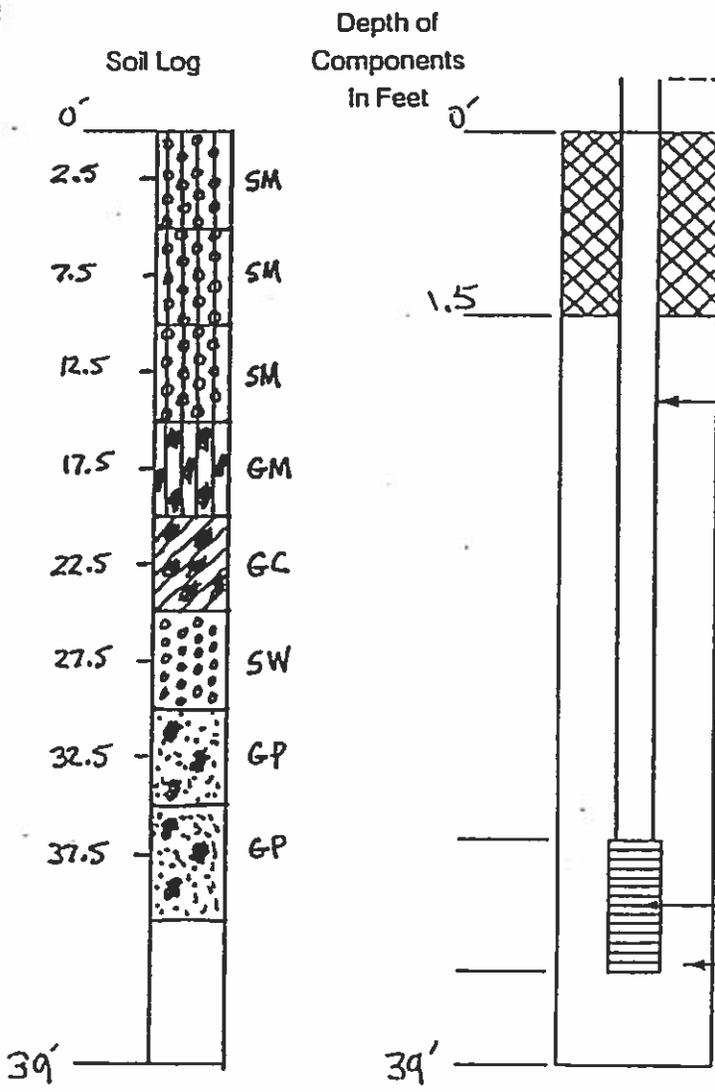
Figure A-5
 Sheet 2 of 2



Resource Protection Well Report

Project Name Seattle Parks Dept.
 Well Identification # B-1
 Drilling Method 4" HSA
 Driller Pat Torres
 License # 1793
 Job # 39

Date 3-12-19-43
 County King NW 1/4 SE 1/4
 Section 30 T. 25 N R. 4E
 Start Card 202728
 Consulting Firm E.P. Johnson



Stick up N/A on Monument Casing
 Type of Surface Seal Concrete
 Amount 1.5
 ID of Riser Pipe _____
 Type of Riser Pipe N/A
 Amount _____
 Type of Connection _____
 Type of Backfill around Riser Bunterite chip
 Amount 37.5
 Diameter of Borehole 9"
 Screen Size or Type _____
 Type of Filter Material N/A
 Amount _____

Remarks: Soil Boring Only!

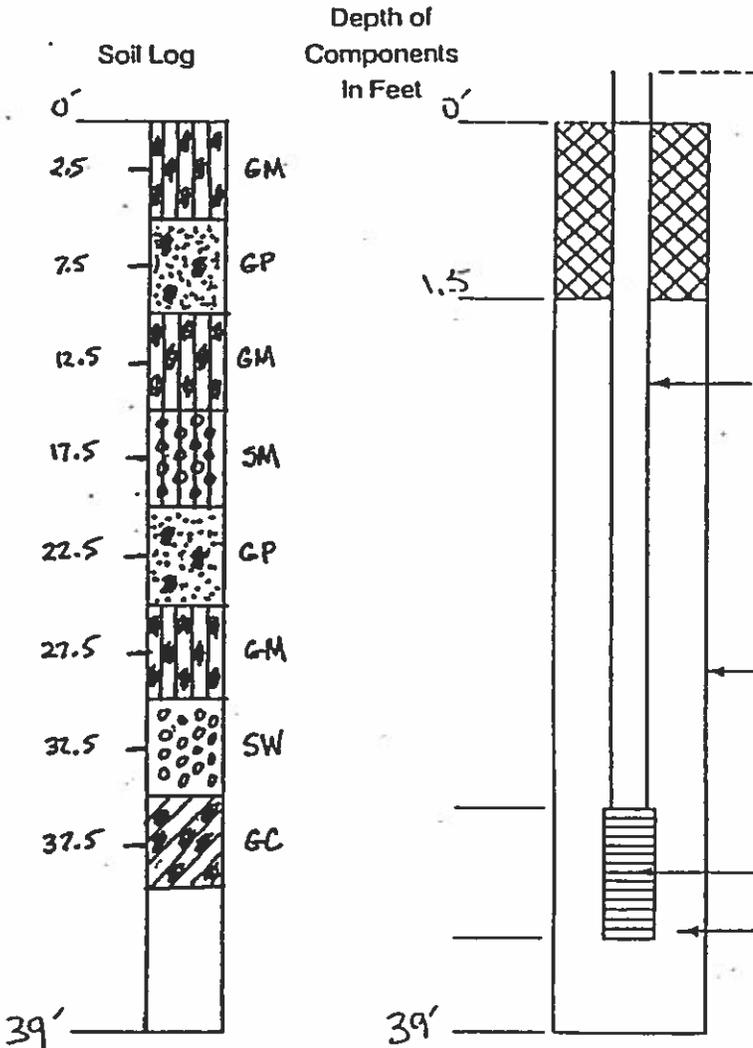
Signature Pat Torres



Resource Protection Well Report

Project Name Seattle Parks Dept.
Well Identification # B-2
Drilling Method 6" HSA
Driller Pat Ternesi
License # 1793
Job # 39

Date 3-12-10-43
County King NW 1/4 SE 1/4
Section 30 T. 25 N R. 4E
Start Card 202728
Consulting Firm E.P. Johnson



Slick up N/A on Monument Casing

Type of Surface Seal Concrete
Amount 1.5

ID of Riser Pipe _____

Type of Riser Pipe N/A
Amount _____

Type of Connection _____

Type of Backfill ~~around Riser~~ Bentonite chip
Amount 37.5

Diameter of Borehole 12"

Screen Size or Type _____

Type of Filter Material N/A
Amount _____

Remarks: Soil Boring Only!

Signature Pat Ternesi

LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR Cascade Drilling, Inc BORING NO. B100 ELEV. N/A
 DRILLER James Goble TYPE DRILL HSA, CME55 LAR LOCATION Inside basement of 8th & Roy structure
 SIZE & TYPE OF CASING 1.5' split spoon (2" diameter) DATE 6/10/02 WEATHER Sunny

SAMPLE DATA										FIELD CLASSIFICATION	
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING RESISTANCE	LENGTH	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE	FIELD CLASSIFICATION	
DATE	TYPE	TO	TO	BLOWS / 6 IN	NO. SAVED				(Y) OR (N)		
11:00	S1	5		12,12,12	1.5			0	Y	Gray med dense slightly sandy clayey SILT, moist to wet, scattered ^{wood} tire, glass and metal debris observed in coring hole	
6/10	SPT	6.5		(24)	1		26'				
11:06	S2	10		5,7,8	1.5			0	Y	Gray, med dense slightly sandy clayey SILT, wet.	
6/10	SPT	11.5		(15)	1						
11:10	S3	15		6,6,6	1.5			0	N	Gray, med dense sl sandy clayey SILT with scattered wood debris (fill) Gray, fine to med SAND, wet (Native)	
6/10	SPT	16.5		(12)	0						
11:15	S4	20		26, 50(6)	0.25			0	N	Gray, very dense silty fine SAND, wet	
6/10	SPT	21		(50(6))	0						
11:25	S5	25		50(6)	0.25			0	N	Gray, very dense, silty fine SAND, wet.	
6/10	SPT	25.5		(50(6))	0						

DEPTH		USCS	FIELD LOG OF BORING	REMARKS		
FROM	TO			Concrete approx 1 foot thick at surface		
0	6.5		Medium dense, gray, slightly sandy clayey SILT; moist to wet; scattered wood, tire, glass and metal debris (Fill)	HAMMER WT. <u>140</u>	DROP <u>30"</u>	
6.5	16		Medium dense, gray slightly sandy, clayey SILT; scattered wood debris below 15 feet (Fill)	HAMMER SYSTEM <u>Slide hammer</u>		
				ROD DIA. _____	NO. OF TURNS _____	
				WATER LEVEL	TIME	DATE
				6'	ATD	
16	16.5		Medium dense, gray, fine to medium SAND; wet. (Native)	FOOTAGE DRILLED <u>25.5'</u>		
				NO. SAMPLES: ATTEMPTED <u>5</u>		
				RECOVERED <u>5</u>		
				TIME DISTRIBUTION THIS HOLE		
				ON HOLE <u>10:36</u>	DONE DRILLING <u>11:35</u>	
				DRILLING <u>10:46</u>	OFF HOLE <u>11:56</u>	
16.5	25.5		Very dense, gray, silty fine SAND; wet. (Native)	BORING NO. <u>B100</u> SHEET <u>22</u> OF <u>28</u>		

LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR ESN NW BORING NO. B101 ELEV. N/A
 DRILLER Alex TYPE DRILL Direct Push (LPR) LOCATION Roy Street
 SIZE & TYPE OF CASING 3' Split spoon sampler (2" diameter) DATE 6/17/02 WEATHER Rainy (indoors)

SAMPLE DATA										FIELD CLASSIFICATION	
TIME DATE	SAMPLE NO. TYPE	DEPTH	FROM TO	DRIVING RESISTANCE BLOWS / 6 IN.	LENGTH NO. SAVED	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE (Y) OR (N)	FIELD CLASSIFICATION	
1:25	S-1		0		0.5		N	0	Y	dry tamper, 0-3 woody, glass, clinker debris, no odor (fill)	
6:17 AM			3		1/2				Y	Top 8" is gray/black w/white silty sand middle 8" is gray slightly silty sand gray silty sand (all fine sand)	
7:27	S-2		3		1		N	0	Y	iron oxide staining, metal wood deb.	
			6		1/2				top	1/2" = dark black w/white speckles silty sand, bottom 1/2 metal	
1:20	S-3		6		1		Y	0	bottom	gray silty sand no odor, moist - wood debris	
			9		1		Y	0	Y	wet gray, slight odor	
2:10	S-4		9		2.5		Y	0	Y	fine silty sand, no debris	
			12		0				N	looks native wet to moist gray sandy silt grading	

DEPTH		USCS	FIELD LOG OF BORING		REMARKS
FROM	TO				
0	1		Gray/black with white speckles, silty ^{fine} SAND with scattered woody, glass and clinker debris. No odor, dry.		REMARKS S-1 & S-2 were composited collected water sample at 12' at 3:20
1	2		Gray slightly silty ^{fine} SAND with scattered woody, glass and clinker debris.		
2	3		Gray silty fine SAND with wood, glass and clinker debris		
3			Black silty SAND with white speckles		

HAMMER WT.	DROP	3
HAMMER SYSTEM		4
ROD DIA.	NO. OF TURNS	
WATER LEVEL	TIME	DATE
8.5'	ATD	
FOOTAGE DRILLED 12		
NO. SAMPLES:	ATTEMPTED	4
	RECOVERED	4
TIME DISTRIBUTION THIS HOLE		
ON HOLE	DONE DRILLING	2:40
DRILLING	OFF HOLE	3:45
BORING NO. B101 SHEET 23 OF 28		

LOGGED BY JEH
 DRILL CONTRACTOR ESNNW
 DRILLER Alex TYPE DRILL Geoprobe LAR Direct Push
 SIZE & TYPE OF CASING 3', 2" diameter Split Spoon
 JOB 21-1-12079-001
 BORING NO. B102 ELEV. N/A
 LOCATION Roy St
 DATE 6/17/02 WEATHER inside

SAMPLE DATA										FIELD CLASSIFICATION
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING RESISTANCE	LENGTH	DRILL ACTION	CONTACTS / GROUNDWATER	PIG	CHEMICAL SAMPLE	
DATE	TYPE	DEP	TO	BLOWS / 6 IN.	NO. SAVED				(Y) OR (N)	
4:00	S-1	0			1.5		N	11	Yall	Petroleum-like odor, gray/black moist Glass, clinker, metal, coal, brick sandy SILT Gravelly (fine slightly)
6/17			3		1					Faint Gray, moist, Petroleum-like odor
4:03	S-2	3			2.5		N	0	Y 4"	moist-fine SAND
			6		1					
4:05	S-3	6			3.5		I ₈ '	0		Gray, moist, no petroleum odor, sandy sandy SILT
			9		0					

DEPTH		USCS	FIELD LOG OF BORING	REMARKS			
FROM	TO			water sample B102-W collected at 14'			
0	3		Gray/black slightly fine gravelly, sandy SILT; moist; debris (glass, clinker, metal, coal, brick) Petroleum-like odor	HAMMER W/T.	N/A	UROP	N/A
3	6		Gray, fine SAND; moist; faint petroleum-like odor.	HAMMER SYSTEM	N/A		
6	9		Gray, sandy SILT; moist; no petroleum odor	ROD DIA.	N/A	NO. OF TURNS	N/A
				WATER LEVEL	8'	TIME	ATD
				DATE	6/17/02		
				FOOTAGE DRILLED	9		
				NO. SAMPLES:	ATTEMPTED	3	
					RECOVERED	3	
				TIME DISTRIBUTION THIS HOLE			
				ON HOLE	3:58	DONE DRILLING	4:05
				DRILLING	4:00	OFF HOLE	5:30
				BORING NO.	B102 SHEET 24 OF 28		



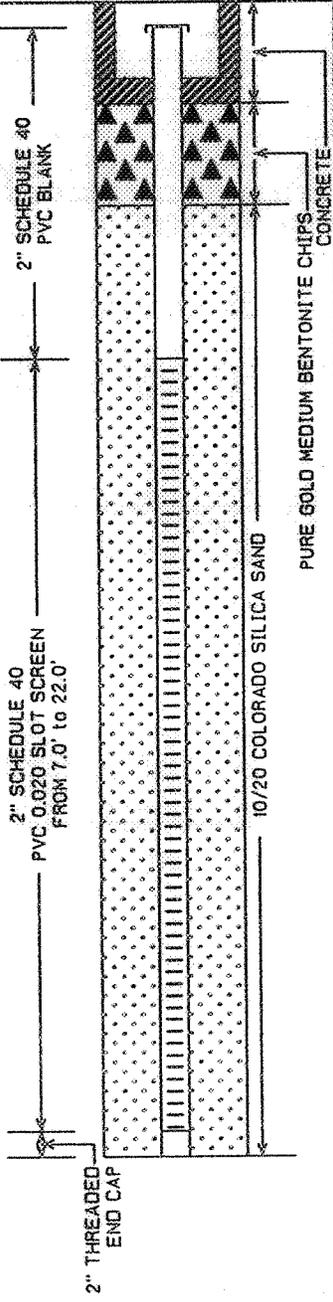
BORING/WELL INSTALLATION LOG

Monitoring Well MW9

1011 SW Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PROJECT NO: 3-1274-200 Seattle Parks		CLIENT: Seattle Park Department	
LOCATION: 8th and Aloha Seattle, WA		DRILLING CO.: Geoboring and Development	
START DATE: 10/18/93	TIME: 1315	BORING ID: 8"	DRILLER: Pat Ternes
COMPLETION DATE: 10/18/93	TIME: 1540	TOTAL DEPTH: 22.5 feet	RIG TYPE: Mobile B-61
WATER LEVEL DURING DRILLING: bgs	PVC STICK-UP:	METHOD: HSA	
SURFACE ELEV.: 81.65	MP ELEV.: 81.35 TOC PVC	LOGGED BY: G. Hainsworth	

DEPTH (in feet)	WELL CONSTRUCTION		SOIL DESCRIPTION		SAMPLE DATA				
	U.S.C.S.	LITHOLOGY	TYPE	DEPTH	BLOWS /ft	%RECOVERY	PID (ppm)		
0 - 1.5		ASPHALT & GRAVEL							
1.5 - 3.5		FILL: Silty sand; dark gray-brown; fine to medium sand; little wood debris; soft; moist	SS	11 1 2	30				
3.5 - 6.5		FILL: Silty sand; gray-green; fine to medium sand; trace fine gravel; very soft; moist; no odor							
6.5 - 10.5		FILL: Silty sand; gray-green; fine to medium sand; trace fine gravel; very soft; dry; no odor	SS	7 7 9	20				
10.5 - 14.5		FILL: Silty sand; gray-green; fine to medium sand; trace fine gravel; very soft; wet; no odor	SS	4 4 4	10				
14.5 - 18.5		FILL: Silty sand; gray-green; fine to medium sand; trace fine gravel; very soft	SS	5 6 9	10				
18.5 - 21.5	ML	SANDY SILT: Green-gray; very fine to fine sand; medium dense; wet; no odor							
21.5 - 22.5	SM	SILTY SAND: Green-gray; very fine to medium sand; stiff; moist; no odor	SS	12 13 19					
Total Depth = 24'									



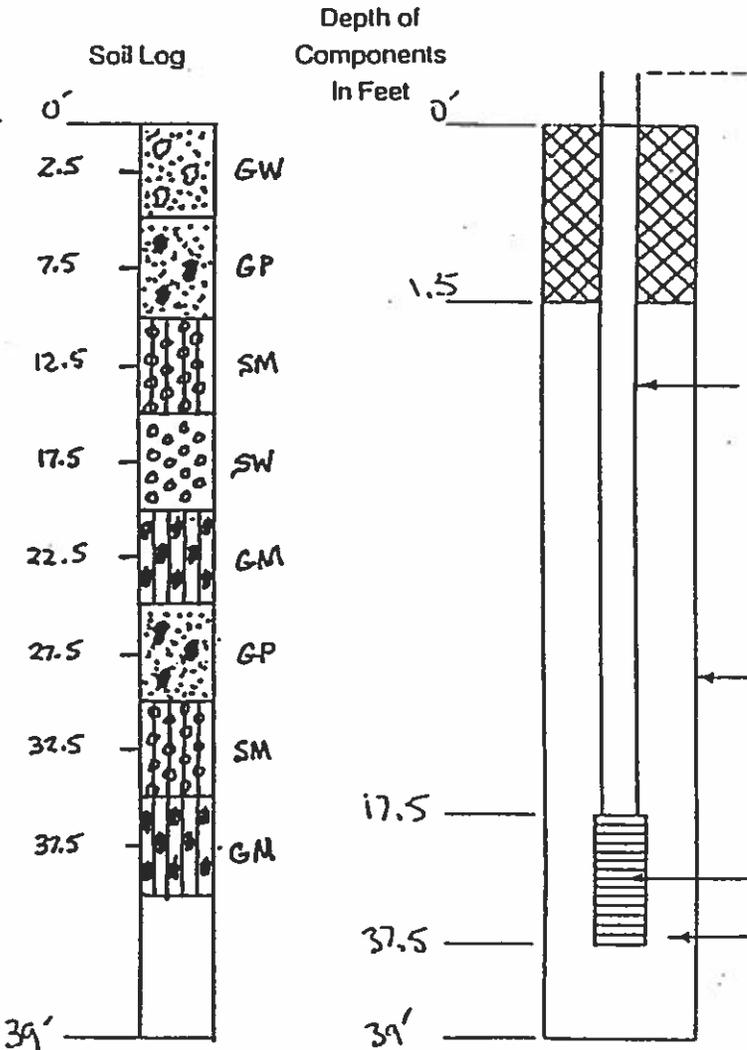
REMARKS: SS = Split Spoon
■ = Analytical Sample



Resource Protection Well Report

Project Name Seattle Parks Dept.
 Well Identification # MW-1
 Drilling Method 6" USA
 Driller Pat Turner
 License # 1793
 Job # 39

Date 3-12-19-43
 County King NW 1/4 SE 1/4
 Section 30 T. 25 N R. 4E
 Start Card 202728
 Consulting Firm E.P. Johnson



Stick up Flush on Monument Casing

Type of Surface Seal Concrete
 Amount 1.5

ID of Riser Pipe 4"
 Type of Riser Pipe PVC
 Amount 17.5

Type of Connection TIE

Type of Backfill around Riser Bentonite chip
 Amount 13.5

Diameter of Borehole 12"

Screen Size or Type .020

Type of Filter Material 10/20 Colp. Sand
 Amount 22.5

Remarks: Monitoring Well #1, Boring #3

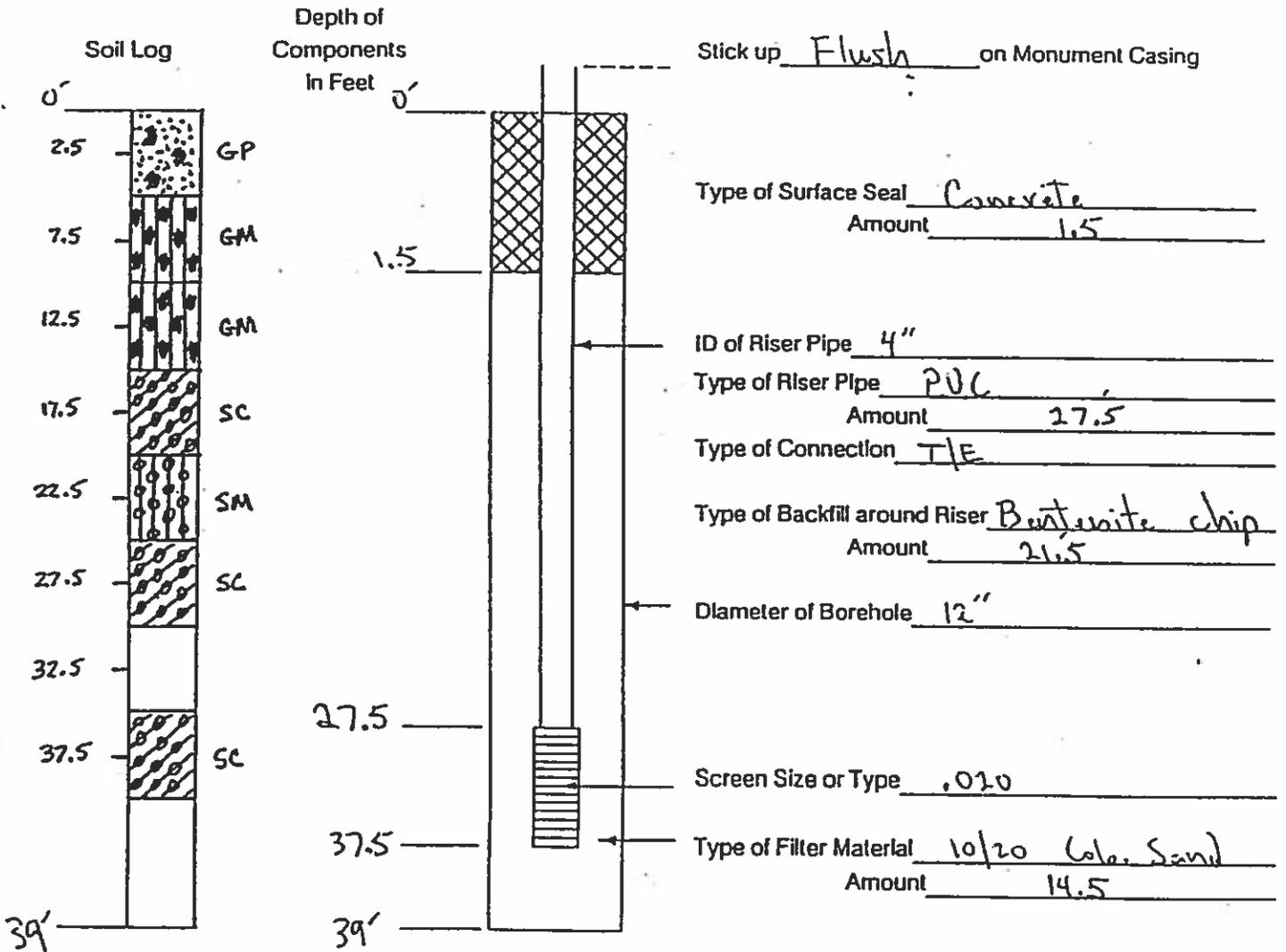
Signature Pat Turner



Resource Protection Well Report

Project Name Seattle Parks Dept.
Well Identification # MW-2
Drilling Method 6" HSA
Driller Pat Torres
License # 1793
Job # 39

Date 3-12-19-43
County King NW 1/4 SE 1/4
Section 30 T. 25 N R. 4E
Start Card 202728
Consulting Firm E.P. Johnson



Remarks: Monitoring Well #2, Boring #4
Sample not available at 32.5 due to debris in hole.

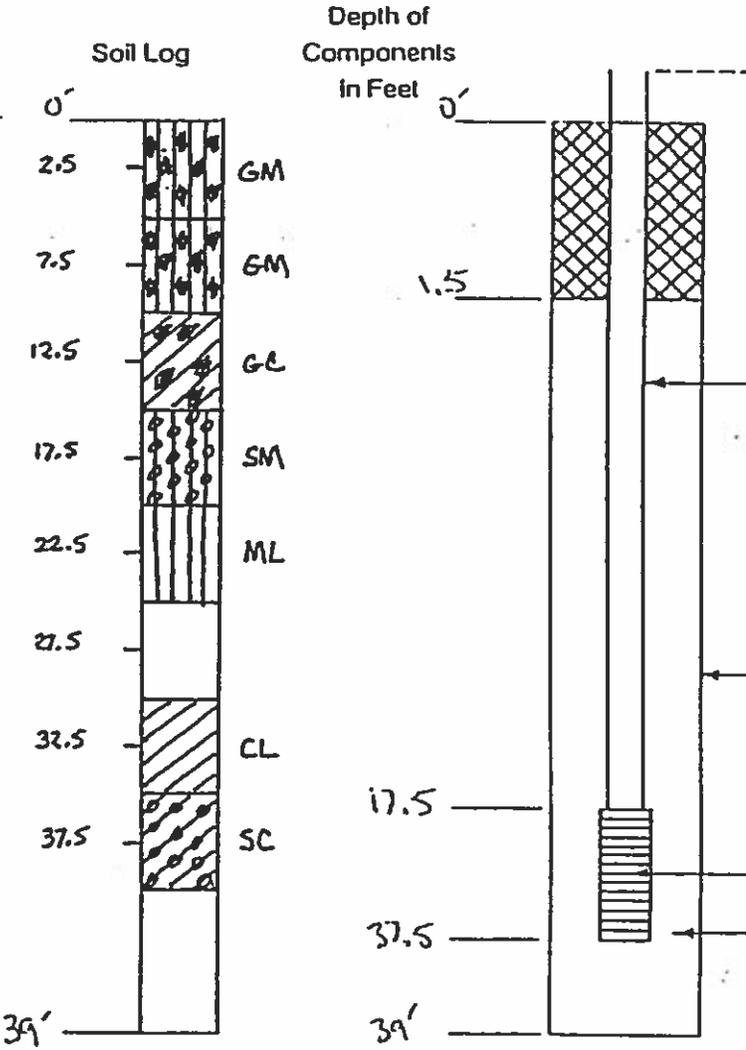
Signature Pat Torres



Resource Protection Well Report

Project Name Seattle Parks Dept.
 Well Identification # MW-3
 Drilling Method 6" USA
 Driller Pat Tomaris
 License # 1793
 Job # 39

Date 3-12-19-43
 County King NW 1/4 SE 1/4
 Section 30 T. 25 N R. 4E
 Start Card 202728
 Consulting Firm F.P. Johnson



Stick up Flush on Monument Casing

Type of Surface Seal Concrete
 Amount 1.5

ID of Riser Pipe 4"
 Type of Riser Pipe PVC
 Amount 17.5

Type of Connection TIE

Type of Backfill around Riser Bentzoite chip
 Amount 13.5

Diameter of Borehole 12"

Screen Size or Type .020

Type of Filter Material 10/20 Colg. Sand
 Amount 22.5

Remarks: Monitoring Well #3, Boring #5
Sample not available at 27.5 due to debris in hole.

Signature Pat Tomaris

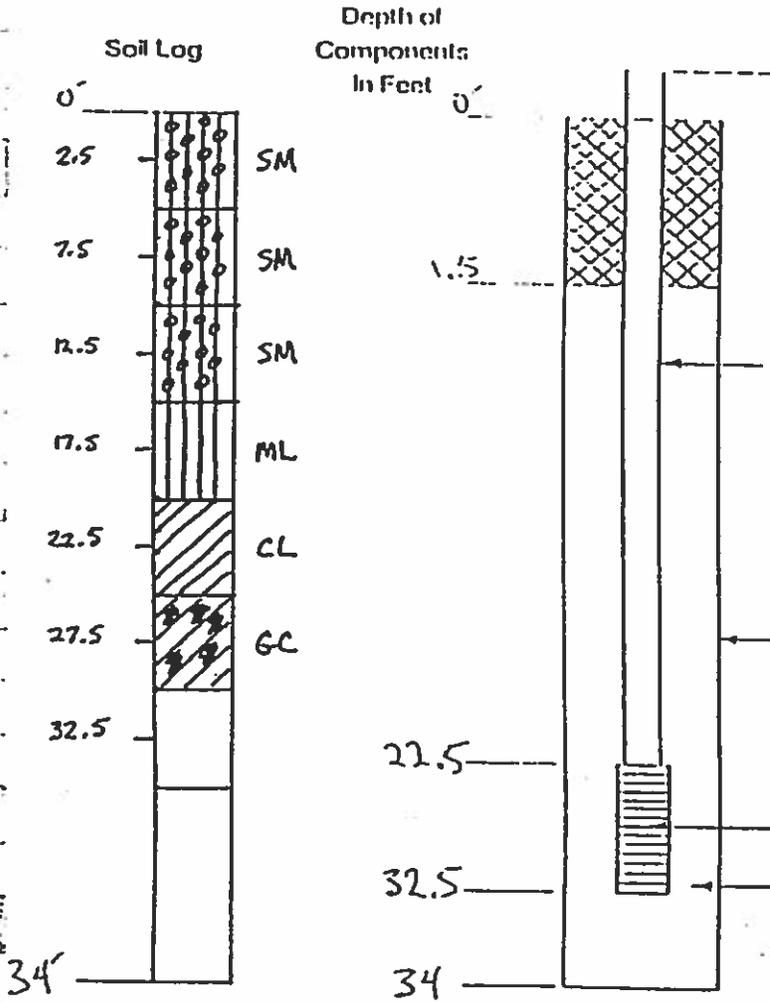


GEORICORING & DEVELOPMENT, INC. 9415 S.R. 162 PUYALLUP, WA. 98172 (206) 845 6771

Resource Protection Well Report

Project Name Seattle Parks Dept.
 Well Identification # MW-4
 Drilling Method 6" USA
 Driller Pat Turner
 License # 1743
 Job # 39

Date 3-12-19-43
 County King N.W. 1/4 S.E. 1/4
 Section 30 T. 25 N R. 4E
 Start Card 202729
 Consulting Firm F.P. Johnson



Stick up Flush on Monument Casing

Type of Surface Seal Concrete
 Amount 1.5

ID of Riser Pipe 4"
 Type of Riser Pipe PVC
 Amount 22.5

Type of Connection TIE

Type of Backfill around Riser Bestusite chip
 Amount 18.5

Diameter of Borehole 12"

Screen Size or Type .020

Type of Filter Material 10/20 Col. Sand
 Amount 12.5

Remarks:

Monitoring Well #4, Boring #6

Sample not available at 32.5 due to debris in hole.

Signature Pat Turner

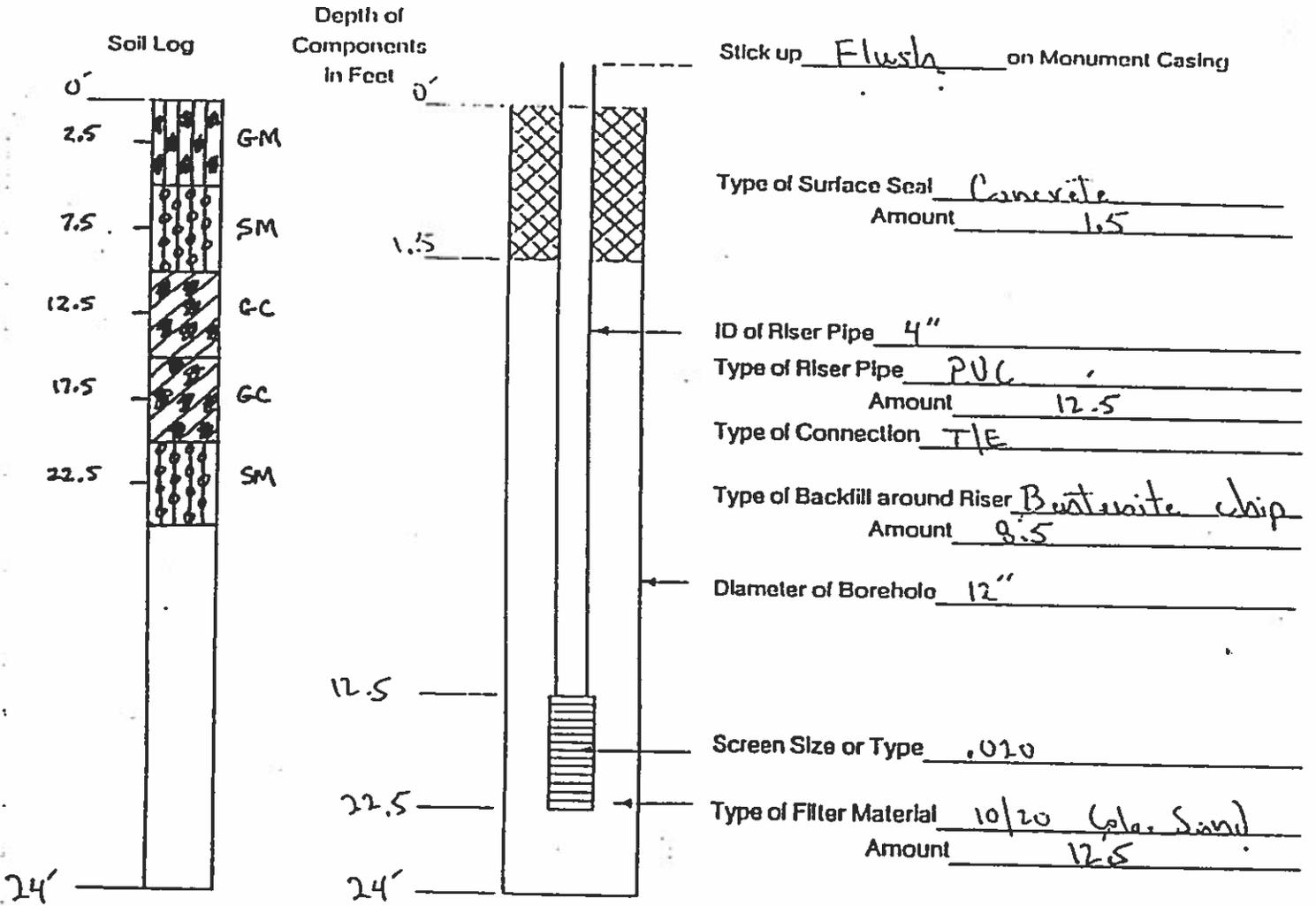


GEOTORING & DEVELOPMENT, INC. 9415 S.R. 162 PUYALLUP, WA. 98372 (206) 845-6990

Resource Protection Well Report

Project Name Seattle Parks Dept.
 Well Identification # MW-5
 Drilling Method 6" USA
 Driller Pat Turner
 License # 1793
 Job # 39

Date 3-12-19-43
 County King NW 1/4 SE 1/4
 Section 30 T. 25 N R. 4E
 Start Card 202728
 Consulting Firm F.P. Johnson



Remarks:

Monitoring Well #5, Boring #7

Signature Pat Turner



BORING LOG
MW-6

1011 SW Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PROJECT NO: 3-1274-200	Seattle Parks	CLIENT: Seattle Park Department
LOCATION: 8th and Aloha, Seattle, WA		DRILLING CO.: Geoboring and Development
START DATE: 10/11/93	TIME: 0830	BORING ID: 8"
COMPLETION DATE: 10/11/93	TIME: 1200	BORING DEPTH: 31.5'
DRILLER: J. Ronish/B. Scott		RIG TYPE: Mobile B-61
WATER LEVEL DURING DRILLING: 14"		SURFACE ELEV.: ' (MSL)
DATE MEASURED: 10/11/93		METHOD: HSA
		LOGGED BY: W. Beebe

DEPTH (in feet)	SAMPLE DATA						SOIL DESCRIPTION
	TYPE	DEPTH	BLOWS /ft	%RECOVERY	PID (ppm)	U.S.C.S.	
0							FILL: Mottled light brown to brown; silty sand; with some gravel; and minor organics (wood); loose; damp to moist
5	SS	3 4	44	0			
10	SS	3 3	30	0			
15	SS	8 8	44	0			FILL: Black; organics; with minor debris (bricks, wood); and trace silt; loose to medium dense; moist to wet
	SS	2 2 2	0	NR			
20	SS	2 3	33	0			FILL: Gray; silty sand; with some gravel; and trace debris (wood); very loose; wet
	SS	0 3	30	2			
25							

REMARKS: SS = Split Spoon & Analytical Sample

DEPTH (In feet)	SAMPLE DATA						SOIL DESCRIPTION	
	TYPE	DEPTH	BLOWS /ft	%RECOVERY	PID (ppm)	U.S.C.S.	LITHOLOGY	
28	SS	28 28 28	28	28	18			
29	SS	29 29 29	44	0	0	SM		SILTY SAND: Gray; with some gravel; medium dense; moist
30	SS	30 30 30	39	7	7	SP SM		SAND: Gray; with some silt; loose; wet to saturated Heaving conditions from 30' to 31.5'
Total depth = 31.5								
Backfilled with bentonite grout to -2'; and bentonite chips to surface								

REMARKS: SS = Split Spoon * Analytical Sample



BORING LOG
RB1

1011 SW Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PROJECT NO: 3-1274-200 Seattle Parks		CLIENT: Seattle Park Department
LOCATION: 8th and Aloha Seattle, WA		DRILLING CO.: Geoboring and Development
START DATE: 10/18/93 TIME: 1010	BORING ID: 8"	DRILLER: Pat Ternes
COMPLETION DATE: 10/18/93 TIME: 1100	BORING DEPTH: 19'	RIG TYPE: Mobile B-61
WATER LEVEL DURING DRILLING:	SURFACE ELEV.: 55.38' (MSL)	METHOD: HSA
DATE MEASURED:	M. P. ELEVATION:	LOGGED BY: G.Hainsworth

DEPTH (in feet)	SAMPLE DATA					SOIL DESCRIPTION	
	TYPE	DEPTH	BLOWS /ft	%RECOVERY	PTD (ppm)	U.S.C.S.	LITHOLOGY
0							ASPHALT
2.5	SS	2.5	22	80			FILL: Gray brown silty sand; trace fine gravel; fine-coarse sand; trace debris (cinders); moist; no odor; soft to medium dense
7.5	SS	7.5	8	8			
12.5	SS	12.5	14	25		ML	SANDY SILT: Gray green; fine sand; medium dense; moist, no odor
17.5	SS	17.5	5	75		SM	SILTY SAND: Gray green; medium sand lenses; medium dense
19						ML	SANDY SILT: Gray green; fine sand; medium dense; moist to wet; no odor
Total Depth = 19'							

REMARKS: SS = Split Spoon ■ = Analytical Sample



BORING LOG
RB2

1011 SW Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PROJECT NO: 3-1274-200 Seattle Parks		CLIENT: Seattle Park Department
LOCATION: 8th and Aloha Seattle, WA		DRILLING CO.: Geoboring and Development
START DATE: 10/18/93	TIME: 1115	BORING ID: 8"
COMPLETION DATE: 10/18/93	TIME: 1215	BORING DEPTH: 19'
WATER LEVEL DURING DRILLING:	SURFACE ELEV.: 55.82' (MSL)	RIG TYPE: Mobile B-8i
DATE MEASURED:	M. P. ELEVATION:	METHOD: HSA
		LOGGED BY: G.Hainsworth

DEPTH (in feet)	SAMPLE DATA				SOIL DESCRIPTION		
	TYPE	DEPTH	BLOWS /ft	%RECOVERY	PID (ppm)	U.S.C.S.	LITHOLOGY
0							ASPHALT & GRAVEL
2	SS	2	2	20			EILL: Gray-green silty sand; fine to medium sand; little fine gravel; trace debris (cinders); soft; moist; no odor
5							
8	SS	2	2	30			EILL: Gray-green clayey silt; little debris (cinders, wood); soft; moist; no odor
10							
13	SS	1	0	0			EILL: Gray sand; fine to medium sand; trace silt; very soft; wet; hydrocarbon odor NOTE: Recovered sample with 2-inch split spoon
15							
18	SS	4	3	ND		SM	SILTY SAND: Greenish gray; fine to medium sand; soft; wet; no to faint odor
20							Total Depth = 19' Appeared to hit more dense silt layer in bottom of split spoon at 19'
25							

REMARKS: SS = Split Spoon * = Analytical Sample



BORING LOG
RB3

1011 SW Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PROJECT NO: 3-1274-200 Seattle Parks	CLIENT: Seattle Park Department
LOCATION: 8th and Aloha Seattle, WA Northwest of MH-7	DRILLING CO.: Geoboring and Development
START DATE: 10/18/93 TIME: 1545	BORING ID: 8"
COMPLETION DATE: 10/18/93 TIME: 1630	BORING DEPTH: 17.5'
WATER LEVEL DURING DRILLING: '	SURFACE ELEV.: 57.48' (MSL)
DATE MEASURED:	M. P. ELEVATION:
	METHOD: HSA
	LOGGED BY: G.Hainsworth

DEPTH (in feet)	SAMPLE DATA					SOIL DESCRIPTION	
	TYPE	DEPTH	BLOWS /ft	%RECOVERY	PID (ppm)	U.S.C.S.	LITHOLOGY
0							ASPHALT
12	SS	12	15	NO			FILL: Silty sand; green-gray; trace debris (cinders, wood) trace gravel; moist to dry; no odor
13							
10	SS	1	2	NO			
11							11' - Hard drilling
13	SS	4	6	70			FILL: Silty sand; green-gray; very fine-medium sand; trace medium gravel; moist; no odor
14							
15	SS	8	8	100			FILL: Silty sand; green-gray; very fine to medium sand; wet; no odor; very soft
16							
17							Total Depth = 19'

REMARKS: SS = Split Spoon * = Analytical Sample



LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR Gregory BORING NO. MW-101 ELEV. _____
 DRILLER Wadi Betlof TYPE DRILL CME45C LOCATION Roy St.
 SIZE & TYPE OF CASING 3/4 ID HSA DATE 6/14/02 WEATHER overcast, slight rain

SAMPLE DATA										FIELD CLASSIFICATION
TIME DATE	SAMPLE NO. TYPE	DEPTH FROM TO	DRIVING RESISTANCE BLOWS / 8 IN.	LENGTH NO. SAVED	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE (Y) OR (N)		
6/14	S-1	5	1, 2, 1	0.25			0	N	very loose moist, no odor, wood debris, glass, cinders, silt - FeO ₂ , leather staining, white, gray, orange & brown, silty sand to sandy SILT, odor strong, very loose moist, glass, wood, strong odor black, brown & gray silty SAND very loose wet, gray silty SAND grading to brown sandy SILT, slightly gravelly	
9:02		6.5	(3)							
9:07	S-2	10	0, 0, 2	0.25		10.5'	1126	N not strong		
		11.5	(2)							
9:10	S-3	15	0, 2, 2	1'			30	N		
		16.5	(4)							

DEPTH		USCS	FIELD LOG OF BORING	REMARKS
FROM	TO			
0	11.5		very loose white gray orange & brown silty SAND to sandy SILT with scattered wood debris, glass, leather and cinders. Contains slight iron oxide staining. Moist. Contains strong petroleum odor.	Driller's observed wood, leather, petroleum odor HAMMER WT. <u>140</u> DROP <u>30"</u> HAMMER SYSTEM <u>CME Autohammer</u> ROD DIA. <u>3/4 inch</u> NO. OF TURNS _____
11.5	16.5		very loose slightly gravelly gray silty SAND grading to brown sandy SILT, wet. Contains slight petroleum odor, wet.	WATER LEVEL <u>10.5'</u> TIME <u>9:25</u> DATE <u>6/14/02</u> FOOTAGE DRILLED <u>16.5</u> NO. SAMPLES: ATTEMPTED <u>3</u> RECOVERED <u>3</u> TIME DISTRIBUTION THIS HOLE ON HOLE <u>8:50</u> DONE DRILLING <u>9:10</u> DRILLING <u>9:00</u> OFF HOLE <u>11:00</u>
				BORING NO. <u>MW 101</u> SHEET <u>25 OF 28</u>

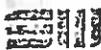


LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR Cascade BORING NO. MW102 ELEV. _____
 DRILLER James Goble TYPE DRILL: HSA, CME 55, LAR LOCATION Roy St (Alley between 8th & 9th St)
 SIZE & TYPE OF CASING 1.5' split spoon (2" diameter) DATE 6/10/02 WEATHER Sunny

SAMPLE DATA							FIELD CLASSIFICATION		
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING RESISTANCE BLOWS/6 IN.	LENGTH NO. SAVED	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE (Y) OR (N)
DATE	TYPE	DEPTH	TO						
12:39	S1	5		7, 6, 10	1.5'				
6/10	SPT	6.5		(16)	1			30.1	Y
1:10	S2	10		17, 7, 4	1.5'		Σ 10'	0	Y
6/10	SPT	11.5		(11)	1			0	strong odor
1:15	S3	15		1, 1, 1	1.5'			0	N
6/10	SPT	16.5		(2)	0				

Gray & brn med dense clayey fine SAND; trace silt; seams of wood debris with PID and odor; leather scattered tire pieces, porcelain, nails, metal del
 Gray, loose, silty fine SAND with clay silt and fine gravel; wet. 6-1
 Gray, very loose, silty fine SAND; wet

DEPTH		USCS	FIELD LOG OF BORING	REMARKS						
FROM	TO									
0	6.5		Medium dense, gray and brown, slightly silty, clayey, fine SAND; moist; numerous organics and debris (wood, porcelain, leather, metal, rubber), strong hydrocarbon odor (Fill)	15 min lunch @ 12:45						
6.5	16.5		Loose grading to very loose, gray, slightly fine gravelly, silty fine SAND; trace clay; wet (Native)	HAMMER WT. <u>140 lbs</u> DROP <u>30"</u> HAMMER SYSTEM <u>slide hammer</u> ROD DIA. _____ NO. OF TURNS _____ <table border="1"> <tr> <th>WATER LEVEL</th> <th>TIME</th> <th>DATE</th> </tr> <tr> <td>10'</td> <td>ATD</td> <td>6/10/02</td> </tr> </table> FOOTAGE DRILLED <u>16.5</u> NO. SAMPLES: ATTEMPTED <u>3</u> RECOVERED <u>3</u> TIME DISTRIBUTION THIS HOLE ON HOLE <u>12:25</u> DONE DRILLING <u>1:15</u> DRILLING <u>12:33</u> OFF HOLE <u>set well, 1:45</u> BORING NO. <u>MW102</u> SHEET <u>26</u> OF <u>28</u>	WATER LEVEL	TIME	DATE	10'	ATD	6/10/02
WATER LEVEL	TIME	DATE								
10'	ATD	6/10/02								



LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR Gregory BORING NO. MW-103 ELEV. _____
 DRILLER Wade Bettaf TYPE DRILL CME 45 C LOCATION Ray St
 SIZE & TYPE OF CASING 3/4 ID HSA DATE 6/14/02 WEATHER partly cloudy sunny

SAMPLE DATA										FIELD CLASSIFICATION
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING RESISTANCE	LENGTH	DRILL	CONTACTS /	PID	CHEMICAL	
DATE	TYPE	OR TO	TO	BLOWS / 6 IN.	NO. SAVED	ACTION	GROUNDWATER		SAMPLE (Y) OR (N)	
11:30	S-1	0.5		2, 2, 2	1/2'		N	0	Y	moist, brown ^{slightly} silty medium SAND (top 1/4)
6/14		6.5		(4)						(bottom 1/4) gray sandy SILT
11:35	S-2	10		1, 1, 1	1/4'		Y, Z	0	Y	no odor/debris All slightly fine gravelly wet no odor brown slightly silty fine SAND
6/14		11.5		(2)						
11:40	S-3	15		1, 1, 2	1		Y	2	N	wet, no odor, gray slightly sandy SILT w/ occasional clinker (one piece found - the rest homogeneous)
		16.5		(3)						

DEPTH		USCS	FIELD LOG OF BORING	REMARKS
FROM	TO			
0	5		brown slightly fine gravelly slightly silty medium SAND, moist	No odor in top soil didn't appear
6	6.5		gray slightly fine gravelly sandy SILT, moist	S1 & S2 composited sample # MW-103-S1 & S2
10	11.5		brown, slightly silty fine SAND, wet.	HAMMER WT. 140 DROP 30' HAMMER SYSTEM CME Auto hammer ROD DIA. 1 3/4 inch NO. OF TURNS
15	16.5		gray slightly sandy SILT with occasional clinker, wet.	WATER LEVEL 9.5' TIME 12:24 DATE 6/14/02
FOOTAGE DRILLED 16.5				
NO. SAMPLES: ATTEMPTED 3 RECOVERED 3				
TIME DISTRIBUTION THIS HOLE				
ON HOLE 11:15		DONE DRILLING 11:40		
DRILLING 11:20		OFF HOLE 1:00		
BORING NO. MW-103 SHEET 27 OF 28				

LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR Cascade Drilling, Inc. BORING NO. MW105 ELEV. _____
 DRILLER James Goble TYPE DRILL HSA, CME 55, LAR LOCATION Ray St (alley between 8th & 9th)
 SIZE & TYPE OF CASING 1.5' split spoon (2" diameter) DATE 6/10/02 WEATHER Sunny, hot

SAMPLE DATA										FIELD CLASSIFICATION
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING RESISTANCE	LENGTH	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE	
DATE	TYPE	TO	TO	BLOWS / 6 IN.	NO. SAVED				(Y) OR (N)	
1:49	S1	5		6,3,3	1.5			0		
6/10	SPT	6.5		(6)						
1:58	S2	10		2,2,2	0.5		9"	0		
6/10	SPT	11.5		(4)				strong odor		
2:10	S3	15		22,11,10	1.5			0		
6/10	SPT	16.5		(21)						
2:15	S4	20		4,5,5	1.5			0		
6/10	SPT	21.5		(10)						
2:40	S5	25		11, 50(6)	1			0		
6/10	SPT	26		(50(6))						
2:45	S6	30		15,21,19	1.5			0		
6/10	SPT	31.5		(40)						

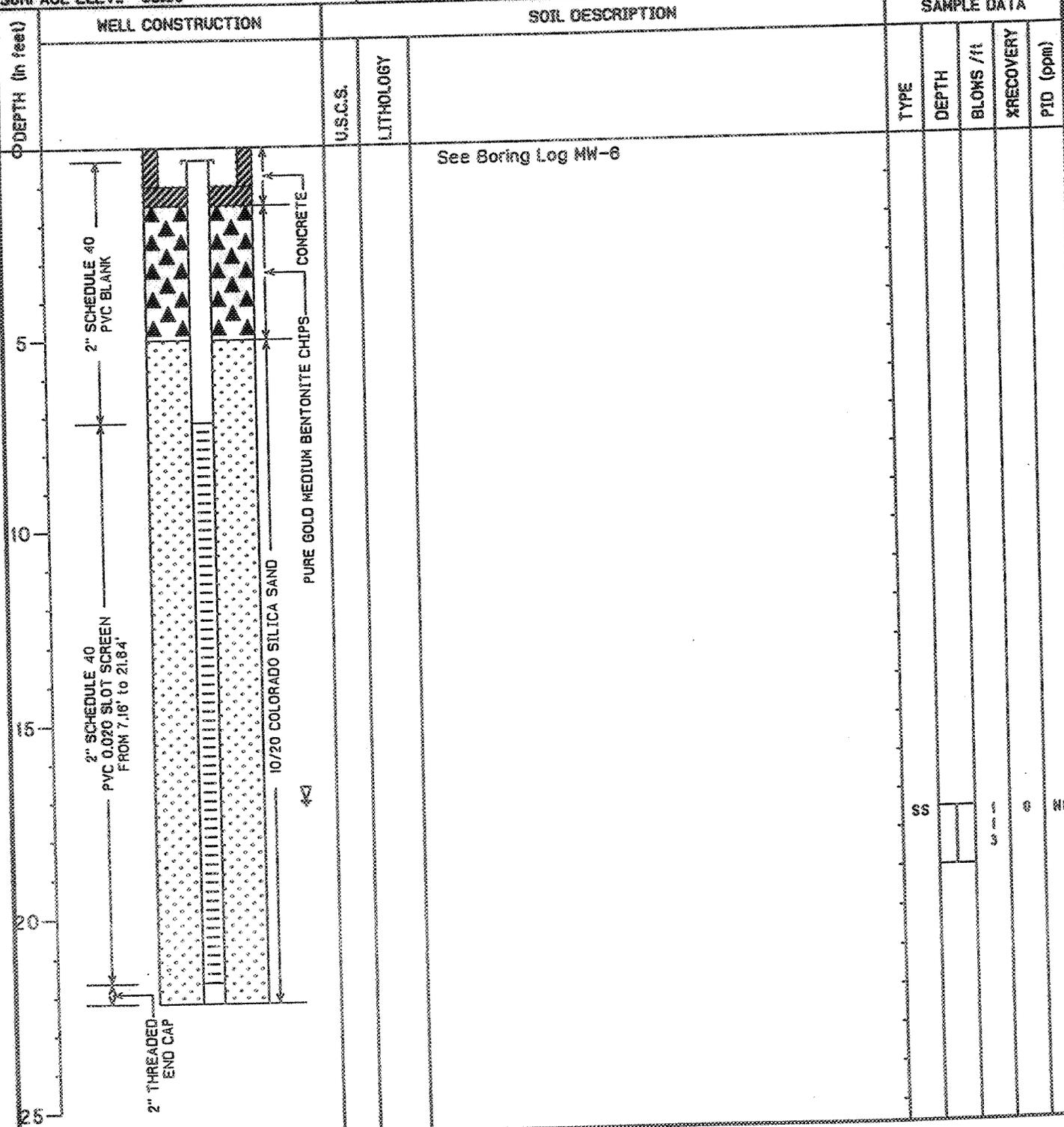
DEPTH		USCS	FIELD LOG OF BORING	REMARKS		
FROM	TO					
0	6.5		Loose, gray, clayey silty fine SAND; moist; numerous organics and debris (wood, leather, metal); strong petroleum odor. (Fill)	slight heave in hole at 31 feet.		
6.5	11.5		Very loose, gray brown, silty SAND; wet; strong petroleum odor.	HAMMER WT. <u>140 lbs</u> DROP <u>30"</u>		
11.5	16		Medium dense, gray, silty SAND; wet; strong petroleum odor.	HAMMER SYSTEM <u>slide hammer</u>		
16	20		Medium dense, slightly fine to coarse gravelly SILT; dry; contains petroleum odor.	ROD DIA. _____ NO. OF TURNS _____		
20	25		Loose, gray, slightly silty SAND; wet; slight petroleum odor.	WATER LEVEL _____ TIME _____ DATE _____		
25	31.5		Very dense grading to dense, gray, slightly silty to silty fine SAND; trace clay; wet.	6/10/02		
				FOOTAGE DRILLED <u>31.5</u>		
				NO. SAMPLES: ATTEMPTED <u>6</u> RECOVERED <u>6</u>		
				TIME DISTRIBUTION THIS HOLE		
				ON HOLE <u>1:40</u> DONE DRILLING <u>2:45</u>		
				DRILLING <u>1:40</u> OFF HOLE well install <u>3:30</u>		
				BORING NO. <u>MW105</u> SHEET <u>28</u> OF <u>28</u>		



BORING/WELL INSTALLATION LOG
Monitoring Well MW6-B

1011 SW Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PROJECT NO: 3-1274-200 Seattle Parks	CLIENT: Seattle Park Department
LOCATION: 7' West of MW-8 8th and Aloha, Seattle, WA	DRILLING CO.: Geoboring and Development
START DATE: 10/11/93 TIME: 1200 BORING ID: 8"	DRILLER: J. Ronish/R. Scott
COMPLETION DATE: 10/11/93 TIME: 1355 TOTAL DEPTH: 22 feet	RIG TYPE: Mobile B-61
WATER LEVEL DURING DRILLING: 17' bgs	METHOD: HSA
SURFACE ELEV.: 58.89	LOGGED BY: M. Beebe
	MP ELEV.: 58.76 TOC PVC



REMARKS: SS = Split Spoon



BORING/WELL INSTALLATION LOG

Monitoring Well MW7

1011 SW Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PROJECT NO: 3-1274-200 Seattle Parks			CLIENT: Seattle Park Department		
LOCATION: 8th and Aloha Seattle, WA			DRILLING CO.: Geoboring and Development		
START DATE: 10/11/93	TIME: 1355	BORING ID: 8"	DRILLER: J. Ronish/R. Scott		
COMPLETION DATE: 10/11/93 TIME: 1630		TOTAL DEPTH: 19 feet	RIG TYPE: Mobile B-61		
WATER LEVEL DURING DRILLING: 18.32' bgs		PVC STICK-UP:	METHOD: HSA		
SURFACE ELEV.: 56.2		MP ELEV.: 55.82 TOC PVC	LOGGED BY: H. Beebe		

DEPTH (in feet)	WELL CONSTRUCTION		SOIL DESCRIPTION		SAMPLE DATA				
	U.S.C.S.	LITHOLOGY			TYPE	DEPTH	BLOWS /ft	%RECOVERY	PTD (ppm)
0									
0-5		CONCRETE		FILL: Gray; silty sand; with minor gravel; and minor debris (bricks, wood); loose; damp to moist	SS	1-2	50	0	
5-10		PURE GOLD MEDIUM BENTONITE CHIPS							
10-15		10/20 COLORADO SILICA SAND		FILL: Black; organics; with some debris (wood, glass); very loose to loose; moist	SS	7-8-6	6	0	
15-18		2" SCHEDULE 40 PVC 0.020 SLOT SCREEN FROM 9.02' to 18.5'		FILL: Gray; silty sand; with some gravel; very loose; saturated	SS	2-1-1	0	3	
18-18.32		2" SCHEDULE 40 PVC BLANK			SS	2-2-2	100	542	
18.32-19		2" THREADED END CAP			SS	0-0-0	100	130	
19				Total Depth = 19'					

REMARKS: SS = Split Spoon
 ■ Analytical Sample



BORING/WELL INSTALLATION LOG

Monitoring Well MW8

1011 SW Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PROJECT NO: 3-1274-200 Seattle Parks	CLIENT: Seattle Park Department
LOCATION: 8th and Aloha Seattle, WA	DRILLING CO.: Geoboring and Development
START DATE: 10/18/93 TIME: 0815	BORING ID: 8"
COMPLETION DATE: 10/18/93 TIME: 0900	TOTAL DEPTH: 20 feet
DRILLER: Pat Ternes	RIG TYPE: Mobile B-81
WATER LEVEL DURING DRILLING: bgs	METHOD: HSA
PVC STICK-UP:	LOGGED BY: G. Hainsworth
SURFACE ELEV.: 53.98	MP ELEV.: 53.72 TOC PVC

DEPTH (in feet)	WELL CONSTRUCTION	SOIL DESCRIPTION		SAMPLE DATA				
		U.S.C.S.	LITHOLOGY	TYPE	DEPTH	BLOWS /ft	%RECOVERY	PID (ppm)
0 - 1.5	2" SCHEDULE 40 PVC BLANK		ASPHALT & GRAVEL					
1.5 - 5.5	2" SCHEDULE 40 PVC 0.020 SLOT SCREEN FROM 4.5' to 19.0'		FILL: Silty sand; blue-gray; trace fine gravel; soft; moist	SS	3	2	2	5
5.5 - 10.5	10/20 COLORADO SILICA SAND		FILL: Sandy silt; gray-brown; some cinders and wood; debris; soft to medium dense; moist	SS	3	6	6	25
10.5 - 15.5	PURE GOLD MEDIUM BENTONITE CHIPS CONCRETE		FILL: Silty sand; gray; fine to medium sand; soft; moist 15' - wet	SS	0	0	0	5
15.5 - 20.5	2" THREADED END CAP		FILL: Silty sand; gray; fine-medium sand; soft; wet; no odor	SS	0	0	0	60
20.5 - 21.5			Total Depth = 21.5'					

REMARKS: SS = Split Spoon
 * = Analytical Sample



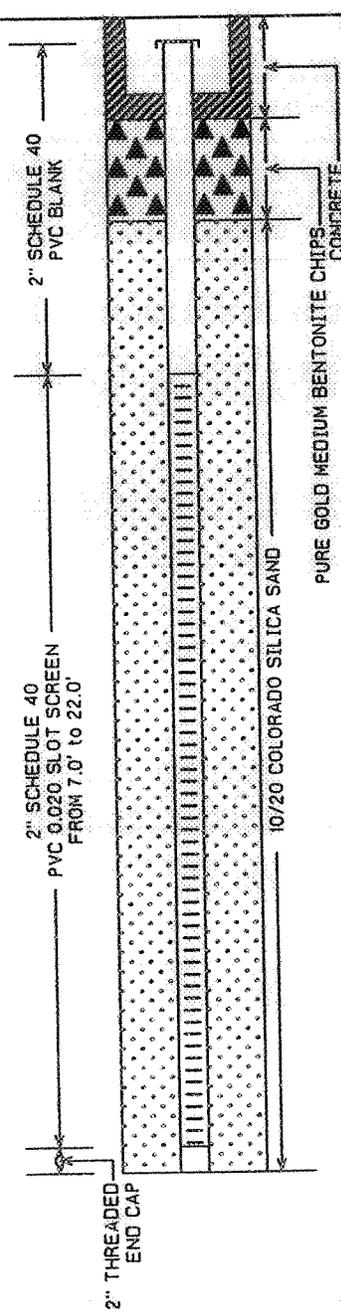
BORING/WELL INSTALLATION LOG

Monitoring Well MW10

1011 SW Klickitat Way
Suite 207
Seattle, WA 98134
(206) 624-9349

PROJECT NO: 3-1274-200 Seattle Parks	CLIENT: Seattle Park Department
LOCATION: 8th and Aloha Seattle, WA; N Prop. Line, 75' S of N Prop. Line	DRILLING CO.: Geoboring and Development
START DATE: 10/19/93 TIME: 0900	BORING ID: 8"
COMPLETION DATE: 10/19/93 TIME: 1100	TOTAL DEPTH: 22.5 feet
WATER LEVEL DURING DRILLING: bgs	PVC STICK-UP:
SURFACE ELEV.: 58.76	MP ELEV.: 58.53 TOC PVC
	METHOD: HSA
	LOGGED BY: G. Hainsworth

DEPTH (in feet)	WELL CONSTRUCTION		SOIL DESCRIPTION		SAMPLE DATA				
	U.S.C.S.	LITHOLOGY	TYPE	DEPTH	BLOWS /ft	%RECOVERY	PID (ppm)		
0 - 1.5		ASPHALT & GRAVEL							
1.5 - 3.5		FILL: Dark brown gravelly sand; trace silt; moist							
3.5 - 5.5		FILL: Gray-green silty sand; fine to medium sand; trace to little gravel; moist; no odor	SS	13 12 18	10				
5.5 - 10.5	GM	SILTY GRAVEL: Gray-green; trace sand; moist; no odor 4' - Hard Drilling	SS		NO	0			
10.5 - 11.5		no recovery due to gravels							
11.5 - 13.5	ML	SILT: Green-gray; trace very fine to medium sand; moist; no odor							
13.5 - 18.5	SP	SAND: Salt and pepper (black and white); medium-grained; trace silt; moist; no odor wet at 16-17'	SS	5 5 4	70				
18.5 - 21.5		interbedded layers of sand and silt	SS	0 1 4	00				
21.5 - 24.5		in addition to an apparent substantial silt layer, recovery consisted mainly of wood	SS	5 5 20	10				
24.5 - 25.5		Total Depth = 24'							



REMARKS: SS = Split Spoon
* = Analytical Sample

LOGGED BY <u>JEH</u> DRILL CONTRACTOR <u>ESN Northwest</u> DRILLER <u>Anisa Newman</u> TYPE DRILL <u>Direct Push</u> SIZE & TYPE OF CASING <u>4' Macrocor (2" diameter)</u>	JOB <u>21-1-12079-001</u> BORING NO. <u>SP1</u> ELEV. <u>N/A</u> LOCATION <u>Ray St (Seattle Parks Parking lot)</u> DATE <u>6/11/02</u> WEATHER <u>overcast, warm</u>
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SAMPLE DATA								FIELD CLASSIFICATION		
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING	LENGTH	DRILL	CONTACTS /	PID	CHEMICAL	FIELD CLASSIFICATION
DATE	TYPE	TO	TO	RESISTANCE	NO. SAVED	ACTION	GROUNDWATER		SAMPLE	
				BLOWS / 6 IN.					(Y) OR (N)	
8:38	S1	0		N/A	4'			7	N	<i>fine gravel</i> Loose, brown to dark brown, slightly slightly silty to silty, fine to med. SAND (0-2) (2-4) Loose, gray & brown to gray, slightly clayey fine SAND with gravel, dry (4-5) gray, clayey, silty, fine SAND, Dr. (5-8) Lt brown to brn. slightly clayey, slightly silty fine SAND; scattered wood & glass debris; dry.
6/11		4			2			17	Y	
								7.5	N	
								32	Y	
8:45	S2	4		N/A	4'		No	7	N	
6/11		8			1			28	N	
								21	N	
								12	N	

DEPTH		USCS	FIELD LOG OF BORING	REMARKS		
FROM	TO			H ₂ O not observed		
0	2		Brown to dark brown, slightly fine gravelly, slightly silty to silty, fine to medium SAND; dry.	HAMMER WT. <u>N/A</u> DROP <u>N/A</u>		
2	5		Gray and brown slightly clayey, slightly silty, slightly fine gravelly, fine SAND; dry.	HAMMER SYSTEM <u>N/A</u>		
				ROD DIA <u>N/A</u> NO. OF TURNS <u>N/A</u>		
				WATER LEVEL	TIME	DATE
				None	N/A	
5	8		Light brown to brown, slightly clayey, slightly silty, fine SAND; dry; numerous organics and debris (wood, glass) (fill)	FOOTAGE DRILLED <u>8'</u>		
				NO. SAMPLES: ATTEMPTED <u>2</u> RECOVERED <u>2</u>		
				TIME DISTRIBUTION THIS HOLE		
				ON HOLE <u>8:30</u>	DONE DRILLING <u>8:45</u>	
				DRILLING <u>8:32</u>	OFF HOLE <u>8:55</u>	
				BORING NO. <u>SP1</u> SHEET <u>1</u> OF <u>28</u>		

LOGGED BY JEM JOB 21-1-12679-001
 DRILL CONTRACTOR ESN NW BORING NO. SP3 ELEV. N/A
 DRILLER Amica Newmax TYPE DRILL Direct Push LOCATION Roy St (Seattle Parks Parking Lot)
 SIZE & TYPE OF CASING 4" Macrocure (2" diameter) DATE 6/11/02 WEATHER sunny

SAMPLE DATA										FIELD CLASSIFICATION
TIME DATE	SAMPLE NO. TYPE	DEPTH FROM TO	DRIVING RESISTANCE BLOWS / 6 IN.	LENGTH NO. SAVED	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE (Y) OR (N)		
9:25	S1	0	N/A	3		No	0	Y	Homogenized	Light brown slightly silty, slightly fine gravelly, fine and medium SAND; dry. (0-1.5') (1.5-3') Dark brown and black, slightly silty, slightly gravelly SAND; gray clay lenses, occasional organics and debris (wood, clinker, cinders); dry
6/11		4		1						

DEPTH		USCS	FIELD LOG OF BORING	REMARKS		
FROM	TO					
0	2		Light brown, slightly silty, slightly fine gravelly, fine and medium SAND; dry.	HAMMER WT. <u>N/A</u>	DROP <u>N/A</u>	
2	4		Dark brown and black, slightly silty, slightly gravelly SAND; gray clay lenses; dry; occasional organics and debris (wood, cinders, clinker).	HAMMER SYSTEM <u>N/A</u>		
				ROD DIA. <u>N/A</u>	NO. OF TURNS <u>N/A</u>	
				WATER LEVEL	TIME	DATE
				None	N/A	
				FOOTAGE DRILLED <u>4</u>		
				NO. SAMPLES: ATTEMPTED <u>1</u> RECOVERED <u>1</u>		
				TIME DISTRIBUTION THIS HOLE		
				ON HOLE <u>9:20</u>	DONE DRILLING <u>9:28</u>	
				DRILLING <u>9:20</u>	OFF HOLE <u>9:30</u>	
				BORING NO. <u>SP3</u> SHEET <u>3</u> OF <u>28</u>		

LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR ESN NW BORING NO. SP6 ELEV. N/A
 DRILLER Amish Neuman TYPE DRILL Direct Push LOCATION Roy St. (Parks Parking lot)
 SIZE & TYPE OF CASING 4' Macrocore (2" diameter) DATE 6/11/02 WEATHER Sunny

SAMPLE DATA										FIELD CLASSIFICATION
TIME DATE	SAMPLE NO. TYPE	DEPTH (FEET) FROM TO	DRIVING RESISTANCE BLOWS / 6 IN.	LENGTH NO. SAVED	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE (Y) OR (N)		
10:20 6/11	1	0 4	N/A	3				0 N	Medium dense, brown, slightly fine gravelly, slightly clayey, fine SAND, dry. (0-2')	
10:25 6/11	2	4 8	N/A	2				0 N	(2-4') medium dense, gray, slightly sandy SILT; dry; no odor; silty gravelly. Loose, brown and gray, silty SAND; moist; scattered organics and debris (wood, clinker); contains petroleum odor.	
10:30 6/11	(S1) 3	8 12	N/A	2		No		0 Y (11-12')	Loose, gray and brown silty SAND; moist; scattered woody debris. (11-12') gray and dark gray silty SAND.	
10:35 6/11	(S2) 4	12 16	N/A	3				0 Y (15-16')	Medium dense, brown and gray, grading silty SAND; moist; glass particles.	
10:44 6/11	5	16 20	N/A	2				0 N	medium dense, gray, slightly sandy SILT, dry. (Top 1/4') Brown, slightly fine gravelly, brown silty SAND, dry.	

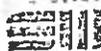
DEPTH		USCS	FIELD LOG OF BORING	REMARKS								
FROM	TO											
0	2		Brown, slightly silty, fine gravelly, slightly clayey, fine SAND; dry	H ₂ O was not encountered.								
2	4		Gray slightly sandy SILT; dry; no odor of petroleum	HAMMER WT. <u>N/A</u> DROP <u>N/A</u> HAMMER SYSTEM <u>N/A</u> ROD DIA. <u>N/A</u> NO. OF TURNS <u>N/A</u>								
4	17		Brown and gray, slightly gravelly, silty SAND; moist; scattered organics and debris (wood, glass, clinker) contains petroleum odor.	<table border="1"> <thead> <tr> <th>WATER LEVEL</th> <th>TIME</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>N/A</td> <td></td> </tr> </tbody> </table>			WATER LEVEL	TIME	DATE	None	N/A	
WATER LEVEL	TIME	DATE										
None	N/A											
17	20		Gray, slightly sandy SILT; dry.	FOOTAGE DRILLED <u>20</u> NO. SAMPLES: ATTEMPTED <u>5</u> RECOVERED <u>5</u> TIME DISTRIBUTION THIS HOLE ON HOLE <u>10:15</u> DONE DRILLING <u>10:44</u> DRILLING <u>10:15</u> OFF HOLE <u>10:50</u>								
				BORING NO. <u>SP6</u> SHEET <u>6</u> OF <u>28</u>								

FIELD LOG OF BORING

LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR ESN NW BORING NO. SP8 ELEV. N/A
 DRILLER Anisa Newman TYPE DRILL Direct Push LOCATION Roy St
 SIZE & TYPE OF CASING 4" Macproce (2" diameter) DATE 6/11/02 WEATHER Sunny, hot

SAMPLE DATA										FIELD CLASSIFICATION
TIME DATE	SAMPLE NO. TYPE	DEPTH FROM TO	DRIVING RESISTANCE BLOWS / 6 IN.	LENGTH NO. SAVED	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE (Y OR N)		
11:05	1	0	y/d	3		N	0	N	loose, brown slightly silty sand w/ gray clay layer and scattered fine gravel no odor, dry	
6/11/02		4								
11:10	2	4	y/d	2			0	N	medium, slightly sandy gray silt - to 7' 7-8' gray/brown silty sand w/ light gray & white particles, coal/cinder pieces, clinker	
6/11		8								
11:16	3	8	31 recovery	3		N	0	N	gray & brown soils - layered Top 2 feet = gray silty sand Bottom foot = black layers w/ hydrocarbon odor & organic debris, glass, bottom 2" = gray sand	
		12								
11:20	(S1) 4	12		4		15.5'	0	NY	gray silty sand w/ odor, no odor, wet, finesand.	
		16'								

DEPTH FROM TO		USCS	FIELD LOG OF BORING	REMARKS
0	4		brown slightly silty sand with gray clay layer layer and trace fine gravel. No odor, dry.	
4	7		Slightly sandy gray silt	HAMMER WT. <u>N/A</u> DROP <u>N/A</u>
7	11		gray/brown silty sand with light gray & brown particles coal, clinker, cinder.	HAMMER SYSTEM <u>N/A</u>
11	12		black silty sand with peat lenses, contains hydrocarbon odor and glass particles	ROD DIA. <u>N/A</u> NO. OF TURNS <u>N/A</u>
12	16		gray silty ^{fine} sand with hydrocarbon odor, wet.	WATER LEVEL <u>15.5'</u> TIME <u>ATD</u> DATE <u>6/11/02</u>
FOOTAGE DRILLED <u>16</u>				
NO. SAMPLFS: ATTEMPTED <u>4</u> RECOVERED <u>4</u>				
TIME DISTRIBUTION THIS HOLE				
ON HOLE <u>11:00</u>		DONE DRILLING <u>11:05</u>		
DRILLING <u>11:02</u>		OFF HOLE <u>11:10</u>		
BORING NO. <u>SP8</u> SHEET <u>8</u> OF <u>28</u>				



FIELD LOG OF BORING

JOB NO. _____

LOGGED BY JEH

DRILL CONTRACTOR ESN NW

DRILLER Anisa TYPE DRILL Direct Push

SIZE & TYPE OF CASING 4" macrocore (2" diameter)

JOB 21-1-12079-001

BORING NO. SP9 ELEV. N/A

LOCATION Roy St.

DATE 6/11/02 WEATHER Sunny / hot

SAMPLE DATA										FIELD CLASSIFICATION
TIME DATE	SAMPLE NO. TYPE	DEPTH FROM TO	DRIVING RESISTANCE BLOWS / 6 IN.	LENGTH NO. SAVED	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE (Y) OR (N)		
11:42	1	0	3' rec'd	3			0		Brown silty sand w/ scattered jagged coarse sand, dry	
6/11/02		4								
11:45	2	4		4			0		brown silty sand w/ scattered coarse sand, dry (last 1/2 foot gray silty sand)	
		8								
11:50	(S) 3	8		4		A	0	ye	Gray silty sand - medium and fine (w/ occasional coarse sands) sample collected at 12' - gray silty sand w/ odor	
		12						12'		
11:55	(S) 4	12		4		15'	0	ye	Gray silty sand w/ strong petroleum odor, wet containing also what appears to be historic brick particles - light brown and woody debris.	
		16						15'		

DEPTH FROM TO		USCS	FIELD LOG OF BORING	REMARKS
0	7.5		brown silty sand, slightly fine gravelly, dry	
7.5	16		gray slightly fine gravelly silty fine and medium fine sand, contains petroleum odor, moist grading to wet, woody debris and pieces of light brown brick observed at 12-16'.	
				HAMMER WT. <u>N/A</u> DROP <u>N/A</u>
				HAMMER SYSTEM <u>N/A</u>
				ROD DIA. <u>N/A</u> NO. OF TURNS <u>N/A</u>
WATER LEVEL		TIME	DATE	
15		ATD	6/11/02	
FOOTAGE DRILLED <u>16</u>				
NO. SAMPLES:		ATTEMPTED	RECOVERED	
		4	4	
TIME DISTRIBUTION THIS HOLE				
ON HOLE		11:38	DONE DRILLING	11:55
DRILLING		11:40	OFF HOLE	12:00
BORING NO. <u>SP9</u>				SHEET <u>9</u> OF <u>10</u>

LOGGED BY JEH
 DRILL CONTRACTOR ESN NW
 DRILLER Anisa TYPE DRILL Direct Push
 SIZE & TYPE OF CASING 4" Macrocore (2" diameter)
 JOB 21-1-12079-001
 BORING NO. SP10 ELEV. N/A
 LOCATION Roy St
 DATE 6/11/02 WEATHER Sunny/hot

SAMPLE DATA							FIELD CLASSIFICATION	
TIME	SAMPLE NO.	FROM	DRIVING RESISTANCE	LENGTH	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE (Y) OR (N)
DATE	TYPE	DEPTH TO	BLOWS / 6 IN.	NO. SAVED				
12:10	1	0	1.5 rebound	1.5				
6/11	3	4						
12:15	2	4	2 rebound	2				
		8						
12:18	(S1) 3	8	2 rebound	2				
		12						
12:22	(S2) 4	12	2 rebound	2				
		16						

brown, fine sand, moist,
 black silty sand
 lt brown sand (brick debris)
 organic layer - woody debris & clay
 brown sandy silt, moist
 dark brown woody layers
 Gray silty sand layers lenses
 brown woody layer of silty sand
 gray layer of sandy silt
 black & gray coarse silty sand
 with scattered coarse sand
 are organic and cinder debris.
 gray slightly sandy silt
 w/ strong odor, wet
 Top layers dark gray silty
 sand w/ odor, woody debris
 moist, & area of metal.

DEPTH		USCS	FIELD LOG OF BORING	REMARKS
FROM	TO			
0	1		brown fine sand, moist, black	
1	3		black silty sand with layer of light brown sand & brick debris: see a layer of woody debris	
3	4		gray silty	
4	10		brown sandy silt grading to silty sand with dark brown woody lenses and gray silty sand lenses, and scattered	
10	16		gray and black silty sand with gray layer of sandy silt, scattered organic woody debris, cinder pieces and metal pieces. contains strong petroleum odor.	

HAMMER WT. N/A DROP N/A
 HAMMER SYSTEM N/A
 ROD DIA. N/A NO. OF TURNS N/A

WATER LEVEL	TIME	DATE
15'	ATD	6/11/02

FOOTAGE DRILLED: 16
 NO. SAMPLES ATTEMPTED 4
 RECD. V-RED 4

TIME DISTRIBUTION THIS HOLE
 ON HOLE 12:05 DONE DRILLING 12:22
 DRILLING 12:10 OFF HOLE 12:25

BORING NO. SP10 SHEET 10 OF 25



LOGGED BY JEH JOB 21-1-2079-001
 DRILL CONTRACTOR ESN NW BORING NO. SP11 ELEV. N/A
 DRILLER Anisa TYPE DRILL Direct Push LOCATION Roy St
 SIZE & TYPE OF CASING 4' MacroCore (2" diameter) DATE 6/11/02 WEATHER Sunny, hot

SAMPLE DATA										FIELD CLASSIFICATION
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING RESISTANCE	LENGTH	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE	
DATE	TYPE	DEPTH	TO	BLOWS / 6 IN.	NO. SAVED				(Y) OR (N)	
1:20	1	0			3				N	1st foot: brown sand, moist
6:11		4							N	2nd foot: dark brown & gray mottled slightly silty sand w/ red brick pieces, moist
1:25	2	4			4				N	3rd foot: dark gray silty sand w/ odor.
		8							N	4th foot: dark brown silty sand w/ pieces of clay and glass
	3	8			4				N	@ 7' greenish silt and @ 8' multicolored silty medium sand w/ clinker, cinders, and wood pieces
1:30		12							N	Gray silty sand w/ medium sands and mixed debris like wood, cinders, glass & metal
	(S) 4	12			4				N	Gray silty sand w/ dark layers of organic debris & silty sand. Sample collected from ~ 15'
1:35		16							N	
1:40		19							N	
		20							N	

DEPTH		USCS	FIELD LOG OF BORING	REMARKS
FROM	TO			
0	2		brown sand, moist	
2	3		dark brown and gray mottled slightly silty sand with red brick pieces, moist	
3	4		dark gray silty sand with petroleum odor	HAMMER WT. <u>N/A</u> DROP <u>N/A</u>
4	7		dark brown silty sand with pieces of clay and glass	HAMMER SYSTEM <u>N/A</u>
7	8		greenish silt and multicolored silty medium sand with clinker, cinders and wood pieces	ROD DIA. <u>N/A</u> NO. OF TURNS <u>N/A</u>
8	16		gray silty sand with dark layers and woody debris, cinders, glass and metal	WATER LEVEL
				TIME
				DATE
				15
				ATD
				6/11/02
				FOOTAGE DRILLED <u>16</u>
				NO. SAMPLES: ATTEMPTED <u>4</u>
				RECOVERED <u>4</u>
				TIME DISTRIBUTION THIS HOLE
				ON HOLE <u>1:15</u> DONE DRILLING <u>1:35</u>
				DRILLING <u>1:20</u> OFF HOLE <u>1:40</u>
				BORING NO. <u>SP11</u> SHEET <u>11</u> OF <u>12</u>



LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR ESN NW BORING NO. SP12 ELEV. N/A
 DRILLER Anisa TYPE DRILL Direct Push LOCATION Ray St
 SIZE & TYPE OF CASING 4" macrocore (2" diameter) DATE 6/11/02 WEATHER Sunny, hot

SAMPLE DATA										FIELD CLASSIFICATION
TIME	SAMPLE NO.	FROM	DRIVING RESISTANCE	LENGTH	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE		
DATE	TYPE	TO	BLOWS / 8 IN.	NO. SAVED				(Y) OR (N)		
1:55	1	0	1.5	3					brown medium fine to fine sand - 1st foot = 2 layers, black, tan and orange black sand slightly silty, tan slightly silty sand, red sand (brick?) last foot - brown & gray sandy silt	
		4								
2:00	2	4	1.5	1.5					brown, gray & dark brown layers. gray contains slight petroleum odor. brown slightly silty sand, gray slightly sandy silt, dark brown silty sand with wood debris.	
		8								
2:02	3	8	1.5	1					gray brown & dark brown clayey sand with organic debris.	
		12								
	(S1) 4	12	4	4		15			Gray, brown & black silty sand w/ cinders, porcelain and wood pieces. Gray slightly silty sand w/ scattered coarse sand	
2:06		16								

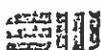
DEPTH		USCS	FIELD LOG OF BORING	REMARKS
FROM	TO			
0	2		brown medium fine to fine sand	sample was from wet area of gray, brown & black silty sand and also a little from the gray silty sand.
2	3		black, tan and orange slightly silty sand. The red appears to be brick particles.	
3	4		brown and gray sandy silt.	HAMMER WT. <u>N/A</u> DROP <u>N/A</u>
4	12		gray, brown and dark brown layers of slightly silty sand to slightly sandy silt with wood debris, moist, contains petroleum odor, porcelain & cinders.	HAMMER SYSTEM <u>N/A</u>
			gray brown and black slightly silty sand with slightly fine gravelly.	ROD DIA. <u>N/A</u> NO. OF TURNS <u>N/A</u>
12	16			WATER LEVEL <u>15'</u> TIME <u>ATD</u> DATE <u>6/11/02</u>
FOOTAGE DRILLED				
NO. SAMPLES: ATTEMPTED _____ RECOVERED _____				
TIME DISTRIBUTION THIS HOLE				
ON HOLE <u>1:50</u> DONE DRILLING <u>2:06</u>				
DRILLING <u>1:52</u> OFF HOLE <u>2:12</u>				
BORING NO. <u>SP12</u> SHEET <u>12</u> OF <u>20</u>				



LOGGED BY JEH
 DRILL CONTRACTOR ESN NW
 DRILLER Anisa TYPE DRILL Direct Push
 SIZE & TYPE OF CASING 4" Macrocure (2" diameter)
 JOB 21-1-12079-001
 BORING NO. SP13 ELEV. N/A
 LOCATION Roy St
 DATE 6/11/02 WEATHER Sunny/hot

SAMPLE DATA										FIELD CLASSIFICATION
TIME	SAMPLE NO.	FEET	FROM	DRIVING	LENGTH	DRILL	CONTACTS /	PID	CHEMICAL	
DATE	TYPE	IN	TO	RESISTANCE	NO. SAVED	ACTION	GROUNDWATER		SAMPLE	
		DI		BLOWS / 6 IN.					(Y) OR (N)	
2:35	1	0		4	4		NO		N	brown & gray sand dry black silty sand, clay w/ organic debris blue-green sand, moist @ 3'
6/11/02		4								
2:40	-2	4		2	3		NO			black silty sand w/ lens of organic matter brown, gray & black silty sand with rubber, wood, clay
		8								
2:45	(S1) 3	8		2	2		12'		S Y Compass	black, brown and gray silty sand with wood, newspaper and medium sand. slight odor, moist.
		12								
2:50	4	12		1/2	1/2				N	dark gray and brown silty medium sand, moist with binders No odor, pebbles and clinker.
		16								

DEPTH		USCS	FIELD LOG OF BORING	REMARKS
FROM	TO			
0	1		brown and gray sand, dry.	
1	12		black, brown and gray silty sand with scattered wood debris, rubber, clay, newspaper and clinker. contains slight petroleum odor at 8 1/2 feet. A blue-green lense of sandy silt, moist, was observed at approx 3 feet bgs.	HAMMER WT. <u>N/A</u> DROP <u>N/A</u> HAMMER SYSTEM <u>N/A</u> ROD DIA. <u>N/A</u> NO. OF TURNS <u>N/A</u>
12	16		dark gray and brown silty medium sand, with clinkers and clinker. No odor, clinker moist.	WATER LEVEL 12' TIME PTD DATE 6/11/02 FOOTAGE DRILLED 16 NO. SAMPLES: ATTEMPTED 4 RECOVERED 4 TIME DISTRIBUTION THIS HOLE ON HOLE 2:30 DONE DRILLING 2:50 DRILLING 2:32 OFF HOLE 2:56 BORING NO. <u>SP13</u> SHEET <u>13</u> OF <u>15</u>



LOGGED BY JEH

DRILL CONTRACTOR ESN NW

DRILLER Anisa TYPE DRILL Direct Push

SIZE & TYPE OF CASING 4' Macrocore (2" diameter)

JOB Roy St 21-1-12079-001

BORING NO. SP14 ELEV. N/A

LOCATION Roy St.

DATE 6/11/02 WEATHER sunny, warm

SAMPLE DATA										FIELD CLASSIFICATION
TIME	SAMPLE NO.	FEET	FROM	DRIVING RESISTANCE	LENGTH	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE	
DATE	TYPE	TO	TO	BLOWS / 6 IN.	NO. SAVED				(Y) OR (N)	
3:00	1	0			3		N		N	brown ^{med} sands & brown fine sands, w/ clinker & brick pieces, moist
6/11		4					N		N	
3:05	2	4			4		N		N	gray/brown fine sand no odor moist
		8					N		N	
3:10	3	8			3.5		N		N	gray/brown fine sand, no odor moist
		12					N		N	
3:30	(S1) 4	12			1.5		N		Y @	gray silty fine sand with coarse sand. Petroleum odor fine gravel. Sheen observed on sample
		16					N		N	
3:40	5	16			4		N		N	gray slightly sandy silt (w/ sand) lens (which contains strong petroleum odor) moist
3		20					N		N	
4:05	6	20			4		Y		N	gray fine sandy to silt, coarse sand at 24' odor to 23' slight
		24							N	

Appears to be capillary fringe @ 20'

DEPTH		USCS	FIELD LOG OF BORING		REMARKS
FROM	TO				
0	4		brown medium to fine sands with clinker and brick pieces moist	Hit what appears to be concrete at 12 feet bgs. Tried to break through it. Drilled through concrete & found petroleum odor below it @ 16'	
4	12		gray / brown fine sand, moist, no odor	HAMMER WT. <u>N/A</u> DROP <u>N/A</u>	
12	14		gray ^{gray} concrete	HAMMER SYSTEM <u>N/A</u>	
14	16		gray slightly silty fine sand with strong petroleum odor and fine gravel.	ROD DIA. <u>N/A</u> NO. OF TURNS <u>N/A</u>	
16	23.5		gray slightly sand silt with sand lens (strong petroleum odor) and slightly fine gravel, moist. Slight odor at 23'	WATER LEVEL <u>20'</u> TIME <u>ATD</u> DATE <u>6/11/02</u>	
23.5	24		coarse sand with slight odors	FOOTAGE DRILLED <u>24</u>	
NO. SAMPLES: ATTEMPTED <u>6</u> RECOVERED <u>6</u>					
TIME DISTRIBUTION THIS HOLE ON HOLE <u>2:55</u> DONE DRILLING <u>4:05</u> DRILLING <u>2:58</u> OFF HOLE <u>4:10</u>					
BORING NO. <u>SP14</u> SHEET <u>14</u> OF <u>18</u>					



LOGGED BY <u>JEH</u>	JOB <u>21-1-12079-001</u>
DRILL CONTRACTOR <u>ESN NW</u>	BORING NO. <u>SP15</u> ELEV. <u>N/A</u>
DRILLER <u>Amish Newman</u> TYPE DRILL <u>Direct Push</u>	LOCATION <u>Roy St</u>
SIZE & TYPE OF CASING <u>4" macrome (2" diameter)</u>	DATE <u>6/11/02</u> WEATHER <u>Sunny, warm</u>

SAMPLE DATA										FIELD CLASSIFICATION
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING RESISTANCE	LENGTH	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE	
DATE	TYPE	DEPTH	TO	BLOWS / 8 IN.	NO. SAVED				(Y) OR (N)	
4:20	S1	0			3.5					Gray brown slightly silty fine sands with occasional gravel. Bottom half gray brown sandy silt and fine sand. Brown gray slightly silty silt. Brick at ~7.5', fine sand at 8'.
		4								
4:28	S2	4			3.5					gray brown slightly silty gravelly slightly silty to silty sand occasional iron oxide staining
		8								
4:30	S3	8			2.5					gray brown silty sand gray sandy silt at bottom 4". Trace fine gravelly. Gravel observed at ~14'. Brown silty sand with trace gravel.
		12								
4:35	S4	12			2.5					Gray silty sand to gray slightly silty sand fine to medium
		16								
4:40	S5	16			1/2					
		20								
4:58	S6	20			2		22'	*	Y Sampled	
		24								

DEPTH		USCS	FIELD LOG OF BORING	REMARKS
FROM	TO			
0	24		Gray brown slightly silty to medium fine sands with occasional ^{slight fine} gravel and gray brown slightly sandy silt. Brick was observed at ~7.5' and fine sand present at 8'. gray brown slightly fine occasional iron oxide staining trace fine gravel. Gravel observed at ~14'	HAMMER WT. <u>N/A</u> DROP <u>N/A</u> HAMMER SYSTEM <u>N/A</u> ROD DIA. <u>N/A</u> NC. OF TURNS <u>N/A</u> WATER LEVEL <u>22'</u> TIME <u>ATD</u> DATE <u>6/11/02</u> FOOTAGE DRILLED <u>24'</u> NO. SAMPLES ATTEMPTED <u>6</u> RECOVERED <u>6</u> TIME DISTRIBUTION THIS HOLE ON HOLE <u>4:12</u> DONE DRILLING <u>4:58</u> DRILLING <u>4:15</u> OFF HOLE <u>5:03</u> BORING NO. <u>SP15</u> SITE # <u>15-0178</u>

LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR ESN NW BORING NO. SP16 ELEV. N/A
 DRILLER Anisa Newman TYPE DRILL Direct Push (1 AR) LOCATION Roy St
 SIZE & TYPE OF CASING 4" MacroCore (2" diameter) DATE 6/12/02 WEATHER Sunny, hot

SAMPLE DATA							FIELD CLASSIFICATION			
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING RESISTANCE	LENGTH	DRILL	CONTACTS /	PID	CHEMICAL	FIELD CLASSIFICATION
DATE	TYPE	TO	TO	BLOWS / 6 IN.	NO. SAVED	ACTION	GROUNDWATER		(Y) OR (N)	
9:10	S1	0			3'			0	Y	dark brown silty medium sand - 5' top with fine gravel & iron oxide staining; brown slightly silty sand w/ clinker last 1/2 foot slightly sandy gray silt. Appear to have hit concrete at 6' bgs (~1/2 foot) 4" brown slightly sandy silt. 1' black, brown and dry gray silty sand w/ orange staining, clinker cinders. last 4" gray slightly sandy silt.
6/12		4						0	Y	
9:15	S-2	4			2'			0	Y	brown slightly sandy to sandy silt moist grading to silty sand w/ gravel (fine) brown sandy silt - 1st foot gray sandy silt - 2nd foot brown sandy silt with silty sand lenses last 2 feet. moist gray/brown silty sand w/ wood pieces at ~19' (~3"), and slightly fine gravel - see #11 moist
		8						0	Y	
9:20	S-3	8			3'			0	Y	clinker & iron oxide staining, jagged gravel, brown silty sand last 5" gray silty fine sand Run for Dx. moist
		12						0	Y	
9:29	S-4	12			4'			0	Y	1st 2 feet dark gray silty sand 2nd 2 feet gray sand slight odor fine of silt for
		16						0	Y	
9:35	S-5	16			3'			0	Y	clinker & iron oxide staining, jagged gravel, brown silty sand last 5" gray silty fine sand Run for Dx. moist
		20						0	Y	
9:45	S-6	20			2'			0	Y	1st 2 feet dark gray silty sand 2nd 2 feet gray sand slight odor fine of silt for
		24						0	Y	
10:05	S7	24			4'			0	Y (25')	clinker & iron oxide staining, jagged gravel, brown silty sand last 5" gray silty fine sand Run for Dx. moist
		28						0	Y	

DEPTH		USCS	FIELD LOG OF BORING		REMARKS					
FROM	TO									
0	3.5		dark brown and brown fine to medium sand with fine gravel and occasional iron oxide staining and clinker	S-1 top 1 foot & S-2 bottom 1.5' combined - analyzed for PCRA metals, DX, PAH						
3.5	4		gray brown slightly sandy gray silt.	Capillary zone - TPH-DX S-5 & S-6 = 2 samples						
4	4.5		brown slightly sandy silt	HAMMER WT. <u>N/A</u> DROP <u>N/A</u>						
4.5	8		black, brown and gray silty sand with orange staining, dry. Appear to hit concrete at 6' bgs. clinker, cinders.	HAMMER SYSTEM <u>N/A</u>						
8	16		brown and gray slightly sandy to sandy silt grading to silty sand w/ gravel	ROD DIA. <u>N/A</u> NO. OF TURNS <u>N/A</u>						
16	24		gray/brown silty sand with wood pieces; clinker and iron oxide staining, jagged gravel, moist	<table border="1"> <tr> <th>WATER LEVEL</th> <th>TIME</th> <th>DATE</th> </tr> <tr> <td>22'</td> <td>ATD</td> <td>6/12/02</td> </tr> </table>	WATER LEVEL	TIME	DATE	22'	ATD	6/12/02
WATER LEVEL	TIME	DATE								
22'	ATD	6/12/02								
FOOTAGE DRILLED <u>28</u> NO. SAMPLES: ATTEMPTED <u>7</u> RECOVERED <u>7</u> TIME DISTRIBUTION THIS HOLE ON HOLE 9:05 DONE DRILLING 10:08 DRILLING 9:07 OFF HOLE 10:15										
BORING NO. <u>SP16</u> SHEET <u>16 OF 28</u>										

LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR ESN NW BORING NO. SP 21 ELEV. N/A
 DRILLER Anisa Newman TYPE DRILL Direct Push LAR LOCATION Roy St.
 SIZE & TYPE OF CASING 4' Macroc (2" diameter) DATE 6/12 WEATHER (Indoors)

SAMPLE DATA								FIELD CLASSIFICATION	
TIME DATE	SAMPLE NO. TYPE	DEPTH FROM TO	DRIVING RESISTANCE BLOWS / 6 IN.	LENGTH NO. SAVED	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE (Y) OR (N)	FIELD CLASSIFICATION
11:00	S-1	0		2		N	50		gray slightly silty sand, gray sandy silt, w/ woody debris occasional gravel Dx GBTBY, strong odor
6/12		4				N	100 50	Y 34'	
11:08	S-2	4		4		N	800 1200 2518	Y 98'	gray top 2' = sandy silt, bottom 2' = silty sand w/ clinker & organic lenses & cinders. Gasoline odor PID = +2000 for sample
		8							
11:15	S-3	8		0.25'		N V 10'	1193	N	bottom layer is silty gray sand low recovery - same gray silty sand
		12							

DEPTH		USCS	FIELD LOG OF BORING	REMARKS			
FROM	TO			strong odor throughout 12 feet.			
0	12		gray slightly silty sand to sandy silt containing woody debris, slight fine gravels, clinker and organic lenses and cinders. Strong petroleum odor.	HAMMER WT.	N/A	DROP	N/A
				HAMMER SYSTEM	N/A		
				ROD DIA.	N/A	NO. OF TURNS	N/A
				WATER LEVEL	10'	TIME	ATD
				DATE	6/12/02		
				FOOTAGE DRILLED	12		
				NO. SAMPLES:	ATTEMPTED	3	
					RECOVERED	3	
				TIME DISTRIBUTION THIS HOLE			
				ON HOLE	10:55	DONE DRILLING	11:15
				DRILLING	10:57	OFF HOLE	11:25
				BORING NO.	SP 21 SHEET 17 OF 28		

LOGGED BY <u>JEH</u> DRILL CONTRACTOR <u>ESN NW</u> DRILLER <u>Ansa Newtype Drill Direct Push (LAR)</u> SIZE & TYPE OF CASING <u>4' macrocore (2" diameter)</u>	JOB <u>21-1-12079-001</u> BORING NO. <u>SP19</u> ELEV. <u>N/A</u> LOCATION <u>Roy St</u> DATE <u>6/12/02</u> WEATHER <u>Indoors</u>
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SAMPLE DATA							FIELD CLASSIFICATION		
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING RESISTANCE	LENGTH	DRILL	CONTACTS /	PID	CHEMICAL
DATE	TYPE		TO	BLOWS / 6 IN.	NO. SAVED	ACTION	GROUNDWATER		SAMPLE (Y) OR (N)
11:36	S-1	0			1.5		N	285	Y
6/12/02			4						homogenized
11:42	S-2	4			4		N	2000	Y
			8						28'
	S-3		8						
			12						

a sandy silt

dark gray silty sand with wood debris & strong odor. sampled for GATEX # DX

Top 2' dark gray ^{black} silt with woody debris

Bottom 2' gray sandy silt w/ strong odor - sampled for GATE

DEPTH		USCS	FIELD LOG OF BORING	REMARKS		
FROM	TO					
0	8		dark gray silty sand and sandy silt with wood debris and a strong odor, moist	HAMMER WT. <u>N/A</u>	DROP <u>N/A</u>	
				HAMMER SYSTEM <u>N/A</u>		
				ROD DIA. <u>N/A</u>	NO. OF TURNS <u>N/A</u>	
				WATER LEVEL	TIME	DATE
				<u>None</u>	<u>N/A</u>	
				FOOTAGE DRILLED <u>8</u>		
				NO. SAMPLES: ATTEMPTED <u>2</u>	RECOVERED <u>2</u>	
				TIME DISTRIBUTION THIS HOLE		
				ON HOLE <u>11:29</u>	DONE DRILLING <u>11:42</u>	
				DRILLING <u>11:35</u>	OFF HOLE <u>11:52</u>	
				BORING NO. <u>SP19</u>	SHEET <u>18</u> OF <u>28</u>	

LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR ESN NW BORING NO. SP18 ELEV. N/A
 DRILLER Anisa Neman TYPE DRILL LAR - Direct Push LOCATION Ray St.
 SIZE & TYPE OF CASING 4" Macrocure (2" diameter) DATE 6/12/02 WEATHER indoors

SAMPLE DATA										FIELD CLASSIFICATION
TIME	SAMPLE NO.	DEPTH	FROM	DRIVING RESISTANCE	LENGTH	DRILL	CONTACTS /	PID	CHEMICAL	FIELD CLASSIFICATION
DATE	TYPE	TO	TO	BLOWS / 6 IN.	NO. SAVED	ACTION	GROUNDWATER		SAMPLE (Y) OR (N)	
12:05 12:00	S-1	0			2'		N	75 186 665 +2000	N	Top 2.5' gray sandy silt w/ fine gravel, bottom 0.5' woody dark gray to black silty sand w/ clinker, rubber, moist
6/12		4								Gray sandy silt top 7 feet, gray fine silty sand bottom 2 feet slightly
12:13	S-2	4			4'		N	+2000	Y (5-8)	slightly petroleum odor
		8								
12:21	S-3									

DEPTH		USCS	FIELD LOG OF BORING	REMARKS
FROM	TO			
0	2.5		gray sandy silt with fine gravel contains petroleum odor	
2.5	4		dark gray to black silty sand with clinker, rubber and wood, moist, strong petroleum odor	HAMMER WT. <u>N/A</u> DROP <u>N/A</u> HAMMER SYSTEM <u>N/A</u>
4.0	8		gray sandy silt grading to fine slightly silty sand, strong petroleum odor	ROD DIA. <u>N/A</u> NO. OF TURNS <u>N/A</u>
				WATER LEVEL TIME DATE None N/A
				FOOTAGE DRILLED <u>8</u>
				NO. SAMPLES: ATTEMPTED <u>2</u> RECOVERED <u>2</u>
				TIME DISTRIBUTION THIS HOLE ON HOLE <u>12:00</u> DONE DRILLING <u>12:13</u> DRILLING <u>12:02</u> OFF HOLE <u>12:28</u>
				BORING NO. <u>SP18</u> SHEET <u>19</u> OF <u>28</u>

LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR ESN NW BORING NO. SP17 ELEV. N/A
 DRILLER Anisa TYPE DRILL EAR - Direct push LOCATION Roy St
 SIZE & TYPE OF CASING 4" macro core (12" diameter) DATE 6/12/02 WEATHER indoors

SAMPLE DATA										FIELD CLASSIFICATION
TIME	SAMPLE NO.	FEET	FROM	DRIVING RESISTANCE	LENGTH	DRILL	CONTACTS /	PID	CHEMICAL	FIELD CLASSIFICATION
DATE	TYPE	BLD	TO	BLOWS / 6 IN.	NO. SAVED	ACTION	GROUNDWATER		SAMPLE (Y) OR (N)	
12:39	S-1	0			2'		NO	12000	N	Gray, dark gray silty sand to fine sand, strong odor, approx. 1.5' deep - green parting. Gravel back 2" FeO2 staining
6/12		4								
12:45	S-2	4			4'		NO	12000	Ye3	
		8								Up to medium sand lenses and @ 3' ~ 0.5' layer of silt w/ slight sand. Moist gray slightly sandy silt grading up to silty fine sand, moist nodular slight odor at 12'
12:50	S-3	8			4'		Y ₁₀	205	Ye	
		12						140	11-2	
								20		

DEPTH		USCS	FIELD LOG OF BORING	REMARKS			
FROM	TO						
0	4		Gray, dark gray silty sand to fine sand, strong odor. ^{at} green parting approx 3' ^{1/2} iron oxide staining. Gravel ^{1/2} 2" at 4'.	S-2 & S-3 sampled for GIBTEX			
4	12		Gray fine sand and slightly silty fine sand and slightly sandy silt with fine to medium sand lenses, moist slight odor at 12'.	HAMMER WT.	N/A	DROP	N/A
				HAMMER SYSTEM	N/A		
				ROD DIA.	N/A	NO. OF TURNS	N/A
				WATER LEVEL		TIME	DATE
				10'		ATD	6/12/02
				FOOTAGE DRILLED			12
				NO. SAMPLES:	ATTEMPTED	3	
					RECOVERED	3	
				TIME DISTRIBUTION THIS HOLE			
				ON HOLE	12:30	DONE DRILLING	12:50
				DRILLING	12:35	OFF HOLE	1:05
				BORING NO.	SP17	SHEET	20 OF 28



LOGGED BY JEH JOB 21-1-12079-001
 DRILL CONTRACTOR ESN NW BORING NO. SP20 ELEV. N/A
 DRILLER Anisa Newman TYPE DRILL LAR - Direct Push LOCATION Roy St
 SIZE & TYPE OF CASING 4' macvcore (2" diameter) DATE 6/12/02 WEATHER indoors

SAMPLE DATA							FIELD CLASSIFICATION	
TIME DATE	SAMPLE NO. TYPE	DEPTH FROM TO	DRIVING RESISTANCE BLOWS / 6 IN.	LENGTH NO. SAVED	DRILL ACTION	CONTACTS / GROUNDWATER	PID	CHEMICAL SAMPLE (Y) OR (N)
1:25	S-1	0		A2		N	16	N
6/12		4		4			261	
1:30	S-2	4		A3		N	136	ye 5'
6/12		8		4			20	ye 108'

1st foot gray slightly silty sand, clinker, rubber, metal moist wood pieces & cinders in dark gray layer of medium sand & fine gravel
 fine sandy silt gray graded to fine silty sand. little odor in ~ 6-8', moist

DEPTH		USCS	FIELD LOG OF BORING	REMARKS		
FROM	TO					
0	1		Gray slightly silty sand			
1	4		dark gray medium silty sand with fine gravel cinders and clinker, rubber, metal and wood and cinder pieces. strong petroleum odor			HAMMER WT. <u>N/A</u> DROP <u>N/A</u> HAMMER SYSTEM <u>N/A</u>
4	8		Fine ^{gray} sandy silt graded to fine silty sand. little odor at 6-8'. Moist.			ROD DIA. <u>N/A</u> NO. OF TURNS <u>N/A</u>
				WATER LEVEL	TIME	DATE
				none	N/A	
				FOOTAGE DRILLED <u>8</u>		
				NO. SAMPLES: ATTEMPTED <u>2</u> RECOVERED <u>2</u>		
				TIME DISTRIBUTION THIS HOLE		
				ON HOLE <u>1:20</u>	DONE DRILLING <u>1:30</u>	
				DRILLING <u>1:20</u>	OFF HOLE <u>1:35</u>	
				BORING NO. <u>SP20</u> SHEET <u>21</u> OF <u>28</u>		

APPENDIX D
ANALYTICAL LABORATORY REPORTS

REMEDIAL INVESTIGATION WORK PLAN
BLOCK 79 EAST SITE
701, 739, 753 9th Avenue North
Seattle, Washington

Farallon PN: 397-035

APPENDIX D
ANALYTICAL LABORATORY REPORTS

REMEDIAL INVESTIGATION WORK PLAN

Block 79 East Site
701, 739, 753 9th Avenue North
Seattle, Washington

Farallon PN: 397-035



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

January 27, 2020

Eric Buer
Farallon Consulting
1809 7th Avenue, Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2001-257

Dear Eric:

Enclosed are the analytical results and associated quality control data for samples submitted on January 24, 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: January 27, 2020
Samples Submitted: January 24, 2020
Laboratory Reference: 2001-257
Project: 397-035

Case Narrative

Samples were collected on January 23, 2020 and received by the laboratory on January 24, 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: January 27, 2020
 Samples Submitted: January 24, 2020
 Laboratory Reference: 2001-257
 Project: 397-035

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MAA-MW-1-012320-45.0					
Laboratory ID:	01-257-01					
Vinyl Chloride	ND	0.20	EPA 8260D	1-25-20	1-25-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
Trichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
Tetrachloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	97	78-125				



Date of Report: January 27, 2020
 Samples Submitted: January 24, 2020
 Laboratory Reference: 2001-257
 Project: 397-035

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MAA-MW-1-012320-38.0					
Laboratory ID:	01-257-02					
Vinyl Chloride	ND	0.20	EPA 8260D	1-25-20	1-25-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
Trichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
Tetrachloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	97	78-125				



Date of Report: January 27, 2020
 Samples Submitted: January 24, 2020
 Laboratory Reference: 2001-257
 Project: 397-035

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MAA-MW-2-012320					
Laboratory ID:	01-257-03					
Vinyl Chloride	ND	0.20	EPA 8260D	1-25-20	1-25-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
Trichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
Tetrachloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	75-127				
<i>Toluene-d8</i>	96	80-127				
<i>4-Bromofluorobenzene</i>	96	78-125				



Date of Report: January 27, 2020
 Samples Submitted: January 24, 2020
 Laboratory Reference: 2001-257
 Project: 397-035

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MAA-MW-3-012320					
Laboratory ID:	01-257-04					
Vinyl Chloride	ND	0.20	EPA 8260D	1-25-20	1-26-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	1-25-20	1-26-20	
(cis) 1,2-Dichloroethene	0.20	0.20	EPA 8260D	1-25-20	1-26-20	
Trichloroethene	ND	0.20	EPA 8260D	1-25-20	1-26-20	
Tetrachloroethene	ND	0.20	EPA 8260D	1-25-20	1-26-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	97	75-127				
<i>Toluene-d8</i>	97	80-127				
<i>4-Bromofluorobenzene</i>	94	78-125				



Date of Report: January 27, 2020
 Samples Submitted: January 24, 2020
 Laboratory Reference: 2001-257
 Project: 397-035

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	FMW-141-012320					
Laboratory ID:	01-257-05					
Vinyl Chloride	73	0.40	EPA 8260D	1-25-20	1-26-20	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260D	1-25-20	1-26-20	
(cis) 1,2-Dichloroethene	9.8	0.40	EPA 8260D	1-25-20	1-26-20	
Trichloroethene	1.6	0.40	EPA 8260D	1-25-20	1-26-20	
Tetrachloroethene	ND	0.40	EPA 8260D	1-25-20	1-26-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	96	78-125				



Date of Report: January 27, 2020
 Samples Submitted: January 24, 2020
 Laboratory Reference: 2001-257
 Project: 397-035

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0125W1					
Vinyl Chloride	ND	0.20	EPA 8260D	1-25-20	1-25-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
Trichloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
Tetrachloroethene	ND	0.20	EPA 8260D	1-25-20	1-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				



Date of Report: January 27, 2020
 Samples Submitted: January 24, 2020
 Laboratory Reference: 2001-257
 Project: 397-035

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0125W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.42	9.20	10.0	10.0	94	92	63-130	2	17	
Benzene	9.27	9.29	10.0	10.0	93	93	76-125	0	19	
Trichloroethene	9.85	10.1	10.0	10.0	99	101	76-121	3	18	
Toluene	9.34	9.51	10.0	10.0	93	95	80-124	2	18	
Chlorobenzene	9.75	10.1	10.0	10.0	98	101	75-120	4	19	
<i>Surrogate:</i>										
Dibromofluoromethane					99	99	75-127			
Toluene-d8					100	100	80-127			
4-Bromofluorobenzene					99	100	78-125			





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

Turnaround Request (in working days)
 (Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Laboratory Number: **01-257**

Company: Farrallon
 Project Number: 397-035
 Project Name: Block 79 East Due Diligence
 Project Manager: Eric Buer
 Sampled by: Ryan Ostrow

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MAA-MW-1-012320-45.0	1/23/20	1000	W	3
2	MAA-MW-1-012320-38.0		1052		
3	MAA-MW-2-012320		1255		
4	MAA-MW-3-012320		1214		
5	FMW-141-012320		1417		

Method	Analysis
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	

Signature	Company	Date	Time	Comments/Special Instructions
	Farrallon	1/24/20	0700	* Only Analyze For the Following PCE; TCE; CS; 1,2-DCE; Trans 1,2-DCE; & Vinyl Chloride
	Speedy	1-24-20	0908	
	Speedy	1-24-20	1058	
	OSE	1/24/20	1058	

Relinquished _____
 Received _____
 Relinquished _____
 Received _____
 Relinquished _____
 Received _____
 Relinquished _____
 Received _____
 Reviewed/Date _____

Reviewed/Date _____

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



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

June 22, 2020

Javan Ruark
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2006-226

Dear Javan:

Enclosed are the analytical results and associated quality control data for samples submitted on June 19, 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: June 22, 2020
Samples Submitted: June 19, 2020
Laboratory Reference: 2006-226
Project: 397-035

Case Narrative

Samples were collected on June 19, 2020 and received by the laboratory on June 19, 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: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	IDW-061920					
Laboratory ID:	06-226-01					
Gasoline	ND	7.5	NWTPH-Gx	6-19-20	6-19-20	U1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	109	58-129				



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**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:	MB0619S1					
Gasoline	ND	5.0	NWTPH-Gx	6-19-20	6-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-226-01							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				109	112	58-129		



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	IDW-GW-061920					
Laboratory ID:	06-226-02					
Gasoline	ND	100	NWTPH-Gx	6-19-20	6-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>91</i>	<i>65-120</i>				



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

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

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0619W1					
Gasoline	ND	100	NWTPH-Gx	6-19-20	6-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	85	65-120				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-206-10							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				86	73	65-120		



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

VOLATILE ORGANICS EPA 8260D

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	IDW-061920					
Laboratory ID:	06-226-01					
Benzene	ND	0.0010	EPA 8260D	6-22-20	6-22-20	
Toluene	ND	0.0052	EPA 8260D	6-22-20	6-22-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-22-20	6-22-20	
m,p-Xylene	ND	0.0021	EPA 8260D	6-22-20	6-22-20	
o-Xylene	ND	0.0010	EPA 8260D	6-22-20	6-22-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>91</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>71-130</i>				



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0622S1					
Benzene	ND	0.0010	EPA 8260D	6-22-20	6-22-20	
Toluene	ND	0.0050	EPA 8260D	6-22-20	6-22-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-22-20	6-22-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-22-20	6-22-20	
o-Xylene	ND	0.0010	EPA 8260D	6-22-20	6-22-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>93</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>107</i>	<i>71-130</i>				



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**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:	SB0622S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0507	0.0531	0.0500	0.0500	101	106	55-126	5	17	
Benzene	0.0466	0.0491	0.0500	0.0500	93	98	65-121	5	16	
Trichloroethene	0.0542	0.0554	0.0500	0.0500	108	111	74-126	2	16	
Toluene	0.0490	0.0465	0.0500	0.0500	98	93	71-121	5	16	
Chlorobenzene	0.0562	0.0570	0.0500	0.0500	112	114	72-123	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					93	98	74-131			
<i>Toluene-d8</i>					105	98	78-128			
<i>4-Bromofluorobenzene</i>					113	109	71-130			



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	IDW-GW-061920					
Laboratory ID:	06-226-02					
Benzene	0.66	0.20	EPA 8260D	6-20-20	6-20-20	
Toluene	ND	1.0	EPA 8260D	6-20-20	6-20-20	
Ethylbenzene	ND	0.20	EPA 8260D	6-20-20	6-20-20	
m,p-Xylene	ND	0.40	EPA 8260D	6-20-20	6-20-20	
o-Xylene	ND	0.20	EPA 8260D	6-20-20	6-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>87</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>78-125</i>				



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0620W1					
Benzene	ND	0.20	EPA 8260D	6-20-20	6-20-20	
Toluene	ND	1.0	EPA 8260D	6-20-20	6-20-20	
Ethylbenzene	ND	0.20	EPA 8260D	6-20-20	6-20-20	
m,p-Xylene	ND	0.40	EPA 8260D	6-20-20	6-20-20	
o-Xylene	ND	0.20	EPA 8260D	6-20-20	6-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>83</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>78-125</i>				



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0620W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.96	9.42	10.0	10.0	100	94	65-126	6	19	
Benzene	9.74	9.09	10.0	10.0	97	91	71-119	7	16	
Trichloroethene	10.5	9.87	10.0	10.0	105	99	82-123	6	18	
Toluene	10.2	9.97	10.0	10.0	102	100	77-119	2	18	
Chlorobenzene	10.7	10.3	10.0	10.0	107	103	80-120	4	17	
<i>Surrogate:</i>										
Dibromofluoromethane					87	85	75-127			
Toluene-d8					98	99	80-127			
4-Bromofluorobenzene					97	95	78-125			



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**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:	IDW-061920					
Laboratory ID:	06-226-01					
Diesel Range Organics	220	32	NWTPH-Dx	6-19-20	6-20-20	
Lube Oil Range Organics	130	64	NWTPH-Dx	6-19-20	6-20-20	N1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>81</i>	<i>50-150</i>				



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**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:	MB0619S1					
Diesel Range Organics	ND	25	NWTPH-Dx	6-19-20	6-19-20	
Lube Oil Range Organics	ND	50	NWTPH-Dx	6-19-20	6-19-20	
<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:	06-203-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				81	84	50-150		



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	IDW-GW-061920					
Laboratory ID:	06-226-02					
Diesel Range Organics	0.30	0.22	NWTPH-Dx	6-19-20	6-20-20	
Lube Oil Range Organics	0.55	0.22	NWTPH-Dx	6-19-20	6-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>77</i>	<i>50-150</i>				



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0619W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	6-19-20	6-20-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	6-19-20	6-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0619W1							
	ORIG	DUP						
Diesel Fuel #2	0.441	0.425	NA	NA	NA	NA	4	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				93	86	50-150		



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	IDW-061920					
Laboratory ID:	06-226-01					
Arsenic	ND	13	EPA 6010D	6-22-20	6-22-20	
Barium	81	3.2	EPA 6010D	6-22-20	6-22-20	
Cadmium	ND	0.64	EPA 6010D	6-22-20	6-22-20	
Chromium	32	0.64	EPA 6010D	6-22-20	6-22-20	
Lead	27	6.4	EPA 6010D	6-22-20	6-22-20	
Mercury	ND	0.32	EPA 7471B	6-22-20	6-22-20	
Selenium	ND	13	EPA 6010D	6-22-20	6-22-20	
Silver	ND	1.3	EPA 6010D	6-22-20	6-22-20	



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**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:	MB0622SH1					
Arsenic	ND	10	EPA 6010D	6-22-20	6-22-20	
Barium	ND	2.5	EPA 6010D	6-22-20	6-22-20	
Cadmium	ND	0.50	EPA 6010D	6-22-20	6-22-20	
Chromium	ND	0.50	EPA 6010D	6-22-20	6-22-20	
Selenium	ND	10	EPA 6010D	6-22-20	6-22-20	
Silver	ND	1.0	EPA 6010D	6-22-20	6-22-20	
Laboratory ID:	MB0622S1					
Mercury	ND	0.25	EPA 7471B	6-22-20	6-22-20	
Laboratory ID:	MB0622SH2					
Lead	ND	5.0	EPA 6010D	6-22-20	6-22-20	



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**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:	06-226-01							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	64.0	66.7	NA	NA	NA	4	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	25.6	27.0	NA	NA	NA	5	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	
Laboratory ID:	06-226-01							
Mercury	ND	ND	NA	NA	NA	NA	20	
Laboratory ID:	06-226-01							
	ORIG	DUP						
Lead	21.4	22.6	NA	NA	NA	6	20	
MATRIX SPIKES								
Laboratory ID:	06-226-01							
	MS	MSD	MS	MSD	MS	MSD		
Arsenic	93.4	91.4	100	100	ND	93 91	75-125	2 20
Barium	166	160	100	100	64.0	102 97	75-125	3 20
Cadmium	46.5	45.9	50.0	50.0	ND	93 92	75-125	1 20
Chromium	128	120	100	100	25.6	102 94	75-125	6 20
Selenium	87.4	84.1	100	100	ND	87 84	75-125	4 20
Silver	23.7	23.3	25.0	25.0	ND	95 93	75-125	2 20
Laboratory ID:	06-226-01							
Mercury	0.557	0.578	0.500	0.500	0.0398	103 108	80-120	4 20
Laboratory ID:	06-226-01							
	MS	MSD	MS	MSD	MS	MSD		
Lead	243	262	250	250	21.4	89 96	75-125	7 20



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	IDW-GW-061920					
Laboratory ID:	06-226-02					
Arsenic	9.8	3.3	EPA 200.8	6-22-20	6-22-20	
Barium	100	28	EPA 200.8	6-22-20	6-22-20	
Cadmium	ND	4.4	EPA 200.8	6-22-20	6-22-20	
Chromium	23	11	EPA 200.8	6-22-20	6-22-20	
Lead	11	1.1	EPA 200.8	6-22-20	6-22-20	
Mercury	ND	0.50	EPA 7470A	6-22-20	6-22-20	
Selenium	ND	5.6	EPA 200.8	6-22-20	6-22-20	
Silver	ND	11	EPA 200.8	6-22-20	6-22-20	



Date of Report: June 22, 2020
 Samples Submitted: June 19, 2020
 Laboratory Reference: 2006-226
 Project: 397-035

**TOTAL METALS
 EPA 200.8/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0622WM1					
Arsenic	ND	3.3	EPA 200.8	6-22-20	6-22-20	
Barium	ND	28	EPA 200.8	6-22-20	6-22-20	
Cadmium	ND	4.4	EPA 200.8	6-22-20	6-22-20	
Chromium	ND	11	EPA 200.8	6-22-20	6-22-20	
Lead	ND	1.1	EPA 200.8	6-22-20	6-22-20	
Selenium	ND	5.6	EPA 200.8	6-22-20	6-22-20	
Silver	ND	11	EPA 200.8	6-22-20	6-22-20	

Laboratory ID:	MB0622W1					
Mercury	ND	0.50	EPA 7470A	6-22-20	6-22-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-205-07							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	ND	ND	NA	NA	NA	NA	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	ND	ND	NA	NA	NA	NA	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	06-193-01							
Mercury	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	06-205-07									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	123	127	111	111	ND	111	114	75-125	3	20
Barium	139	141	111	111	24.9	103	105	75-125	1	20
Cadmium	119	121	111	111	ND	107	109	75-125	2	20
Chromium	113	108	111	111	ND	102	98	75-125	5	20
Lead	111	114	111	111	ND	100	103	75-125	3	20
Selenium	126	129	111	111	ND	114	116	75-125	2	20
Silver	94.9	97.8	111	111	ND	86	88	75-125	3	20

Laboratory ID:	06-193-01									
Mercury	10.6	10.6	12.5	12.5	ND	85	84	75-125	0	20



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: June 22, 2020
Samples Submitted: June 19, 2020
Laboratory Reference: 2006-226
Project: 397-035

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
IDW-061920	06-226-01	21	6-19-20





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

Turnaround Request (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Laboratory Number:

06-226

Company: Farewell

Project Number: 397-035

Project Name: Block 79

Project Manager: Josann Kuante

Sampled by: Greg Peters

Lab ID Sample Identification

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	IDW-061920	6/19/20	1130	soil	5
2	IOW-GW-061920	6/19/20	1200	water	8

Number of Containers

NWTPH-HCID	
NWTPH-Gx/BTEX	<u>8260D</u>
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	<u>X</u>
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) 1664A	

% Moisture	<u>X</u>
------------	----------

Signature

[Signature]

Michelle L Brown

Company

Farewell

OSE

Date

6/19/20

6/19/20

Time

1206

1426

Comments/Special Instructions

Relinquished

Received

Relinquished

Received

Relinquished

Received

Reviewed/Date

Reviewed/Date

Reviewed/Date

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



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

March 9, 2021

Eric Buer
Farallon Consulting
1809 7th Avenue, Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2103-085

Dear Eric:

Enclosed are the analytical results and associated quality control data for samples submitted on March 8, 2021.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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: March 9, 2021
Samples Submitted: March 8, 2021
Laboratory Reference: 2103-085
Project: 397-035

Case Narrative

Samples were collected on March 8, 2021 and received by the laboratory on March 8, 2021. 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: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

**HYDROCARBON IDENTIFICATION
 NWTPH-HCID**

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 4-line					
Laboratory ID:	03-085-01					
Gasoline Range Organics	ND	9600	NWTPH-HCID	3-8-21	3-9-21	
Diesel Range Organics	Detected	24000	NWTPH-HCID	3-8-21	3-9-21	
Lube Oil	Detected	48000	NWTPH-HCID	3-8-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S

Client ID:	Hoist 3-line					
Laboratory ID:	03-085-03					
Gasoline Range Organics	ND	9700	NWTPH-HCID	3-8-21	3-9-21	
Diesel Range Organics	Detected	24000	NWTPH-HCID	3-8-21	3-9-21	
Lube Oil	Detected	49000	NWTPH-HCID	3-8-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

**HYDROCARBON IDENTIFICATION
 NWTPH-HCID
 QUALITY CONTROL**

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308P1					
Gasoline Range Organics	ND	10	NWTPH-HCID	3-8-21	3-8-21	
Diesel Range Organics	ND	25	NWTPH-HCID	3-8-21	3-8-21	
Lube Oil Range Organics	ND	50	NWTPH-HCID	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Product
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 4-line					
Laboratory ID:	03-085-01					
Gasoline	880	490	NWTPH-Gx	3-9-21	3-9-21	O
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	58-129				
Client ID:	Hoist 3-line					
Laboratory ID:	03-085-03					
Gasoline	910	480	NWTPH-Gx	3-9-21	3-9-21	O
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	58-129				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

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

Matrix: Product
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309P1					
Gasoline	ND	5.0	NWTPH-Gx	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-085-01							
	ORIG	DUP						
Gasoline	879	908	NA	NA	NA	NA	3	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				94	95	58-129		



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 4-line					
Laboratory ID:	03-085-01					
Diesel Range Organics	650000	24000	NWTPH-Dx	3-8-21	3-9-21	
Lube Oil	600000	48000	NWTPH-Dx	3-8-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S
Client ID:	Hoist 3-line					
Laboratory ID:	03-085-03					
Diesel Range Organics	340000	24000	NWTPH-Dx	3-8-21	3-9-21	
Lube Oil	950000	49000	NWTPH-Dx	3-8-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308P1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-8-21	3-8-21	
Lube Oil Range Organics	ND	50	NWTPH-Dx	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0308P1							
	ORIG	DUP						
Diesel Fuel #2	86.7	84.8	NA	NA	NA	NA	2	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				97	97	50-150		



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
 page 1 of 2

Matrix: Product
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 4-line					
Laboratory ID:	03-085-01					
Dichlorodifluoromethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	14	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	11	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	11	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Acetone	ND	22	EPA 8260D	3-9-21	3-9-21	
Iodomethane	ND	11	EPA 8260D	3-9-21	3-9-21	
Carbon Disulfide	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	11	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Methyl t-Butyl Ether	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Vinyl Acetate	ND	11	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
2-Butanone	ND	11	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Benzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	11	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Methyl Isobutyl Ketone	ND	11	EPA 8260D	3-9-21	3-9-21	
Toluene	ND	11	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	2.2	EPA 8260D	3-9-21	3-9-21	



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 4-line					
Laboratory ID:	03-085-01					
1,1,2-Trichloroethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	12	2.2	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
2-Hexanone	ND	11	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Ethylbenzene	3.9	2.2	EPA 8260D	3-9-21	3-9-21	
m,p-Xylene	17	4.3	EPA 8260D	3-9-21	3-9-21	
o-Xylene	7.2	2.2	EPA 8260D	3-9-21	3-9-21	
Styrene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	11	EPA 8260D	3-9-21	3-9-21	
Isopropylbenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	2.2	EPA 8260D	3-9-21	3-9-21	
n-Propylbenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,3,5-Trimethylbenzene	4.2	2.2	EPA 8260D	3-9-21	3-9-21	
tert-Butylbenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trimethylbenzene	15	2.2	EPA 8260D	3-9-21	3-9-21	
sec-Butylbenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
p-Isopropyltoluene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
n-Butylbenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	11	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	11	EPA 8260D	3-9-21	3-9-21	
Naphthalene	ND	11	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	2.2	EPA 8260D	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>71-130</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
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Matrix: Product
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 3-line					
Laboratory ID:	03-085-03					
Dichlorodifluoromethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	16	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	12	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	12	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Acetone	ND	24	EPA 8260D	3-9-21	3-9-21	
Iodomethane	ND	12	EPA 8260D	3-9-21	3-9-21	
Carbon Disulfide	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	12	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Methyl t-Butyl Ether	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Vinyl Acetate	ND	12	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
2-Butanone	ND	12	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Benzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	12	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Methyl Isobutyl Ketone	ND	12	EPA 8260D	3-9-21	3-9-21	
Toluene	69	12	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	2.4	EPA 8260D	3-9-21	3-9-21	



Date of Report: March 9, 2021
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 Project: 397-035

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 3-line					
Laboratory ID:	03-085-03					
1,1,2-Trichloroethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	6.7	2.4	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
2-Hexanone	ND	12	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Ethylbenzene	3.7	2.4	EPA 8260D	3-9-21	3-9-21	
m,p-Xylene	17	4.7	EPA 8260D	3-9-21	3-9-21	
o-Xylene	6.9	2.4	EPA 8260D	3-9-21	3-9-21	
Styrene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	12	EPA 8260D	3-9-21	3-9-21	
Isopropylbenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	2.4	EPA 8260D	3-9-21	3-9-21	
n-Propylbenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,3,5-Trimethylbenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
tert-Butylbenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trimethylbenzene	3.0	2.4	EPA 8260D	3-9-21	3-9-21	
sec-Butylbenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
p-Isopropyltoluene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
n-Butylbenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	12	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	12	EPA 8260D	3-9-21	3-9-21	
Naphthalene	ND	12	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	2.4	EPA 8260D	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>71-130</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Matrix: Product
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309P1					
Dichlorodifluoromethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	0.34	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Acetone	ND	0.50	EPA 8260D	3-9-21	3-9-21	
Iodomethane	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Carbon Disulfide	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	0.25	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Methyl t-Butyl Ether	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Vinyl Acetate	ND	0.25	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
2-Butanone	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Benzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	0.25	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Methyl Isobutyl Ketone	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Toluene	ND	0.25	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	0.050	EPA 8260D	3-9-21	3-9-21	



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
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 Project: 397-035

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309P1					
1,1,2-Trichloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
2-Hexanone	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Ethylbenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
m,p-Xylene	ND	0.10	EPA 8260D	3-9-21	3-9-21	
o-Xylene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Styrene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Isopropylbenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
n-Propylbenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,3,5-Trimethylbenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
tert-Butylbenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trimethylbenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
sec-Butylbenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
p-Isopropyltoluene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
n-Butylbenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	0.25	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Naphthalene	ND	0.25	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>71-130</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Product
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0309P1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0497	0.0484	0.0500	0.0500	99	97	55-126	3	17	
Benzene	0.0475	0.0462	0.0500	0.0500	95	92	65-121	3	16	
Trichloroethene	0.0524	0.0520	0.0500	0.0500	105	104	74-126	1	16	
Toluene	0.0464	0.0459	0.0500	0.0500	93	92	71-121	1	16	
Chlorobenzene	0.0499	0.0475	0.0500	0.0500	100	95	72-123	5	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>105</i>	<i>102</i>	<i>74-131</i>			
<i>Toluene-d8</i>					<i>99</i>	<i>100</i>	<i>78-128</i>			
<i>4-Bromofluorobenzene</i>					<i>103</i>	<i>101</i>	<i>71-130</i>			



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

PCBs EPA 8082A

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 4-line					
Laboratory ID:	03-085-01					
Aroclor 1016	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1221	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1232	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1242	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1248	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1254	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1260	ND	0.98	EPA 8082A	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	94	63-125				

Client ID:	Hoist 3-line					
Laboratory ID:	03-085-03					
Aroclor 1016	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1221	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1232	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1242	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1248	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1254	ND	0.98	EPA 8082A	3-9-21	3-9-21	
Aroclor 1260	ND	0.98	EPA 8082A	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	66	63-125				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309O1					
Aroclor 1016	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1221	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1232	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1242	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1248	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1254	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1260	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Surrogate:	Percent Recovery		Control Limits			
DCB	100		63-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	03-085-03										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	9.05	9.09	9.85	9.95	ND	92	91	54-121	0	15	
Surrogate:											
DCB						65	66	63-125			



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

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

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 4-line					
Laboratory ID:	03-085-01					
Arsenic	ND	10	EPA 6010D	3-9-21	3-9-21	
Barium	ND	2.5	EPA 6010D	3-9-21	3-9-21	
Cadmium	ND	0.50	EPA 6010D	3-9-21	3-9-21	
Chromium	ND	0.50	EPA 6010D	3-9-21	3-9-21	
Lead	13	5.0	EPA 6010D	3-9-21	3-9-21	
Mercury	ND	0.25	EPA 7471B	3-9-21	3-9-21	
Selenium	ND	10	EPA 6010D	3-9-21	3-9-21	
Silver	ND	1.0	EPA 6010D	3-9-21	3-9-21	

Client ID:	Hoist 3-line					
Laboratory ID:	03-085-03					
Arsenic	ND	10	EPA 6010D	3-9-21	3-9-21	
Barium	ND	2.5	EPA 6010D	3-9-21	3-9-21	
Cadmium	ND	0.50	EPA 6010D	3-9-21	3-9-21	
Chromium	ND	0.50	EPA 6010D	3-9-21	3-9-21	
Lead	30	5.0	EPA 6010D	3-9-21	3-9-21	
Mercury	ND	0.25	EPA 7471B	3-9-21	3-9-21	
Selenium	ND	10	EPA 6010D	3-9-21	3-9-21	
Silver	ND	1.0	EPA 6010D	3-9-21	3-9-21	



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

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

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309PH1					
Arsenic	ND	10	EPA 6010D	3-9-21	3-9-21	
Barium	ND	2.5	EPA 6010D	3-9-21	3-9-21	
Cadmium	ND	0.50	EPA 6010D	3-9-21	3-9-21	
Chromium	ND	0.50	EPA 6010D	3-9-21	3-9-21	
Lead	ND	5.0	EPA 6010D	3-9-21	3-9-21	
Selenium	ND	10	EPA 6010D	3-9-21	3-9-21	
Silver	ND	1.0	EPA 6010D	3-9-21	3-9-21	

Laboratory ID:	MB0309P1					
Mercury	ND	0.25	EPA 7471B	3-9-21	3-9-21	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	02-085-01							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Barium	ND	ND	NA	NA	NA	NA	NA	20
Cadmium	ND	ND	NA	NA	NA	NA	NA	20
Chromium	ND	ND	NA	NA	NA	NA	NA	20
Lead	13.0	12.3	NA	NA	NA	NA	6	20
Selenium	ND	ND	NA	NA	NA	NA	NA	20
Silver	ND	2.52	NA	NA	NA	NA	NA	20

Laboratory ID:	02-085-01							
Mercury	ND	ND	NA	NA	NA	NA	NA	20

MATRIX SPIKES

Laboratory ID:	02-085-01									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	86.9	85.6	100	100	ND	87	86	75-125	1	20
Barium	97.0	95.5	100	100	ND	97	96	75-125	2	20
Cadmium	46.1	45.8	50.0	50.0	ND	92	92	75-125	1	20
Chromium	99.2	98.0	100	100	ND	99	98	75-125	1	20
Lead	252	250	250	250	13.0	96	95	75-125	1	20
Selenium	97.3	96.6	100	100	ND	97	97	75-125	1	20
Silver	22.9	22.7	25.0	25.0	ND	91	91	75-125	1	20

Laboratory ID:	02-085-01									
Mercury	0.433	0.437	0.500	0.500	ND	87	87	80-120	1	20



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: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Product
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 4-line					
Laboratory ID:	03-085-01					
Benzo[a]anthracene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Chrysene	22	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[b]fluoranthene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo(j,k)fluoranthene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[a]pyrene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Indeno(1,2,3-c,d)pyrene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Dibenz[a,h]anthracene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>87</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>109</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>108</i>	<i>49 - 121</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Product
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist 3-line					
Laboratory ID:	03-085-03					
Benzo[a]anthracene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Chrysene	6.7	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[b]fluoranthene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo(j,k)fluoranthene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[a]pyrene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Indeno(1,2,3-c,d)pyrene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
Dibenz[a,h]anthracene	ND	3.7	EPA 8270E/SIM	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>89</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>106</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>108</i>	<i>49 - 121</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Product
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308P1					
Benzo[a]anthracene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Chrysene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[b]fluoranthene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[j,k]fluoranthene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[a]pyrene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Indeno(1,2,3-c,d)pyrene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Dibenz[a,h]anthracene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	97	46 - 113				
Pyrene-d10	102	45 - 114				
Terphenyl-d14	117	49 - 121				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-085
 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Product
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0308P1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	1.31	1.27	1.25	1.25	105	102	72 - 129	3	15	
Chrysene	1.28	1.29	1.25	1.25	102	103	66 - 123	1	15	
Benzo[b]fluoranthene	1.37	1.35	1.25	1.25	110	108	68 - 128	1	15	
Benzo(j,k)fluoranthene	1.30	1.28	1.25	1.25	104	102	63 - 128	2	16	
Benzo[a]pyrene	1.34	1.31	1.25	1.25	107	105	66 - 130	2	15	
Indeno(1,2,3-c,d)pyrene	1.31	1.31	1.25	1.25	105	105	63 - 135	0	15	
Dibenz[a,h]anthracene	1.35	1.32	1.25	1.25	108	106	65 - 130	2	15	
<i>Surrogate:</i>										
2-Fluorobiphenyl					100	99	46 - 113			
Pyrene-d10					104	103	45 - 114			
Terphenyl-d14					113	112	49 - 121			





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





Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 983-3981 • www.onsite-env.com

Chain of Custody

Turnaround Request
 (in working days)

Laboratory Number: **03-085**

(Check One)

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

Company: **Farallon**
 Project Number: **397-035**
 Project Name: **Block 79**
 Project Manager: **Eric Gier**
 Sampled by: **Courtney van Stolk**

Lab ID Sample Identification

Date Sampled Time Sampled Matrix

Number of Containers

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 (RCRA 8)	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	CPAH 8270	HOLD on	% Moisture	
1	Hoist 4 - line	3-8	1015	product 1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
2	Hoist 51 - hoist		1020	water	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
3	Hoist 3 - line		1030	product 1	1	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	<i>Courtney van Stolk</i>	Farallon	3-8	1200	
Received	<i>Eric Gier</i>	Speedy	3-8-21	1200	
Relinquished	<i>Eric Gier</i>	Speedy	3-8-21	1325	
Received	<i>Mueller</i>	OSE	3/8/21	1325	
Relinquished					
Received					
Relinquished					
Reviewed/Date		Reviewed/Date			

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



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

March 9, 2021

Eric Buer
Farallon Consulting
1809 7th Avenue, Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2103-087

Dear Eric:

Enclosed are the analytical results and associated quality control data for samples submitted on March 8, 2021.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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: March 9, 2021
Samples Submitted: March 8, 2021
Laboratory Reference: 2103-087
Project: 397-035

Case Narrative

Samples were collected on March 8, 2021 and received by the laboratory on March 8, 2021. 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.

Volatiles EPA 8260D (soil) Analysis

Some MTCA Method A cleanup levels are not achievable for sample UST-A-top due to the necessary dilution of the sample.

Total Metals EPA 6010D/7471B (soil) Analysis

The duplicate RPD for Barium, Lead and Mercury outside control limits due to sample inhomogeneity.

The Matrix Spike/ Matrix Spike Duplicate recoveries for Lead and Mercury are outside control limits due to matrix inhomogeneity . The Spike Blank recovery was 98% for Lead and 111% for Mercury.

The Matrix Spike/Matrix Spike Duplicate RPD for Lead is outside control limits due to matrix inhomogeneity

PAHs EPA 8270E/SIM (soil) Analysis

Sample UST-A-top had one surrogate recovery outside of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%

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: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Product
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-product					
Laboratory ID:	03-087-01					
Gasoline	870	480	NWTPH-Gx	3-9-21	3-9-21	O
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	102	58-129				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

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

Matrix: Product
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309P1					
Gasoline	ND	5.0	NWTPH-Gx	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-085-01							
	ORIG	DUP						
Gasoline	879	908	NA	NA	NA	NA	3	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				94	95	58-129		



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-top					
Laboratory ID:	03-087-02					
Gasoline	ND	19	NWTPH-Gx	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>77</i>	<i>58-129</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
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 Project: 397-035

**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:	MB0309S2					
Gasoline	ND	5.0	NWTPH-Gx	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	93	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-087-02							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				77	74	58-129		



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-product					
Laboratory ID:	03-087-01					
Diesel Range Organics	63000	24000	NWTPH-Dx	3-8-21	3-9-21	N
Lube Oil	530000	48000	NWTPH-Dx	3-8-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308P1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-8-21	3-8-21	
Lube Oil Range Organics	ND	50	NWTPH-Dx	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0308P1							
	ORIG	DUP						
Diesel Fuel #2	86.7	84.8	NA	NA	NA	NA	2	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				97	97	50-150		



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

**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:	UST-A-top					
Laboratory ID:	03-087-02					
Diesel Range Organics	11000	1900	NWTPH-Dx	3-8-21	3-9-21	N
Lube Oil	73000	3700	NWTPH-Dx	3-8-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

**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:	MB0308S1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-8-21	3-8-21	
Lube Oil Range Organics	ND	50	NWTPH-Dx	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0308S1							
	ORIG	DUP						
Diesel Fuel #2	87.9	73.3	NA	NA	NA	NA	18	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				98	88	50-150		



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
 page 1 of 2

Matrix: Product
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-product					
Laboratory ID:	03-087-01					
Dichlorodifluoromethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	16	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	12	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	12	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Iodomethane	ND	12	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	12	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Benzene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	12	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Toluene	ND	12	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	2.3	EPA 8260D	3-9-21	3-9-21	



Date of Report: March 9, 2021
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 Laboratory Reference: 2103-087
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-product					
Laboratory ID:	03-087-01					
1,1,2-Trichloroethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Ethylbenzene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
m,p-Xylene	ND	4.6	EPA 8260D	3-9-21	3-9-21	
o-Xylene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	12	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	2.3	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	12	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	12	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	2.3	EPA 8260D	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>71-130</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
 page 1 of 2

Matrix: Product
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309P1					
Dichlorodifluoromethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	0.34	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Iodomethane	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	0.25	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Benzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	0.25	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Toluene	ND	0.25	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	0.050	EPA 8260D	3-9-21	3-9-21	



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
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 Project: 397-035

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309P1					
1,1,2-Trichloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Ethylbenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
m,p-Xylene	ND	0.10	EPA 8260D	3-9-21	3-9-21	
o-Xylene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	0.25	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	0.050	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	0.25	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	0.25	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.050	EPA 8260D	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>71-130</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Product
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0309P1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0497	0.0484	0.0500	0.0500	99	97	55-126	3	17	
Benzene	0.0475	0.0462	0.0500	0.0500	95	92	65-121	3	16	
Trichloroethene	0.0524	0.0520	0.0500	0.0500	105	104	74-126	1	16	
Toluene	0.0464	0.0459	0.0500	0.0500	93	92	71-121	1	16	
Chlorobenzene	0.0499	0.0475	0.0500	0.0500	100	95	72-123	5	16	
<i>Surrogate:</i>										
Dibromofluoromethane					105	102	74-131			
Toluene-d8					99	100	78-128			
4-Bromofluorobenzene					103	101	71-130			



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-top					
Laboratory ID:	03-087-02					
Dichlorodifluoromethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Chloromethane	ND	0.75	EPA 8260D	3-8-21	3-9-21	
Vinyl Chloride	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Bromomethane	ND	0.56	EPA 8260D	3-8-21	3-9-21	
Chloroethane	ND	0.56	EPA 8260D	3-8-21	3-9-21	
Trichlorofluoromethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,1-Dichloroethene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Iodomethane	ND	0.56	EPA 8260D	3-8-21	3-9-21	
Methylene Chloride	ND	0.56	EPA 8260D	3-8-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,1-Dichloroethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
2,2-Dichloropropane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Bromochloromethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Chloroform	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,1,1-Trichloroethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Carbon Tetrachloride	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,1-Dichloropropene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Benzene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,2-Dichloroethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Trichloroethene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,2-Dichloropropane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Dibromomethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Bromodichloromethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	0.56	EPA 8260D	3-8-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Toluene	ND	0.56	EPA 8260D	3-8-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	0.11	EPA 8260D	3-8-21	3-9-21	



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-top					
Laboratory ID:	03-087-02					
1,1,2-Trichloroethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Tetrachloroethene	0.40	0.11	EPA 8260D	3-8-21	3-9-21	
1,3-Dichloropropane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Dibromochloromethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,2-Dibromoethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Chlorobenzene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Ethylbenzene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
m,p-Xylene	ND	0.22	EPA 8260D	3-8-21	3-9-21	
o-Xylene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Bromoform	ND	0.56	EPA 8260D	3-8-21	3-9-21	
Bromobenzene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,2,3-Trichloropropane	ND	0.11	EPA 8260D	3-8-21	3-9-21	
2-Chlorotoluene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
4-Chlorotoluene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,3-Dichlorobenzene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,4-Dichlorobenzene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,2-Dichlorobenzene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	0.56	EPA 8260D	3-8-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
Hexachlorobutadiene	ND	0.56	EPA 8260D	3-8-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.11	EPA 8260D	3-8-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>71-130</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Chloromethane	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromomethane	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
Chloroethane	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Iodomethane	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
Methylene Chloride	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Chloroform	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Benzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Toluene	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-8-21	3-8-21	
o-Xylene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromoform	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane	ND	0.0069	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>107</i>	<i>71-130</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

**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:	SB0308S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0599	0.0591	0.0500	0.0500	120	118	55-126	1	17	
Benzene	0.0517	0.0519	0.0500	0.0500	103	104	65-121	0	16	
Trichloroethene	0.0591	0.0586	0.0500	0.0500	118	117	74-126	1	16	
Toluene	0.0547	0.0548	0.0500	0.0500	109	110	71-121	0	16	
Chlorobenzene	0.0497	0.0500	0.0500	0.0500	99	100	72-123	1	16	
<i>Surrogate:</i>										
Dibromofluoromethane					97	94	74-131			
Toluene-d8					99	100	78-128			
4-Bromofluorobenzene					103	107	71-130			



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

PCBs EPA 8082A

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-product					
Laboratory ID:	03-087-01					
Aroclor 1016	ND	1.0	EPA 8082A	3-9-21	3-9-21	
Aroclor 1221	ND	1.0	EPA 8082A	3-9-21	3-9-21	
Aroclor 1232	ND	1.0	EPA 8082A	3-9-21	3-9-21	
Aroclor 1242	ND	1.0	EPA 8082A	3-9-21	3-9-21	
Aroclor 1248	ND	1.0	EPA 8082A	3-9-21	3-9-21	
Aroclor 1254	ND	1.0	EPA 8082A	3-9-21	3-9-21	
Aroclor 1260	ND	1.0	EPA 8082A	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	82	63-125				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309O1					
Aroclor 1016	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1221	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1232	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1242	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1248	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1254	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Aroclor 1260	ND	0.99	EPA 8082A	3-9-21	3-9-21	
Surrogate:	Percent Recovery		Control Limits			
DCB	100		63-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	03-085-03										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	9.05	9.09	9.85	9.95	ND	92	91	54-121	0	15	
Surrogate:											
DCB						65	66	63-125			



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-top					
Laboratory ID:	03-087-02					
Aroclor 1016	ND	0.075	EPA 8082A	3-8-21	3-9-21	
Aroclor 1221	ND	0.075	EPA 8082A	3-8-21	3-9-21	
Aroclor 1232	ND	0.075	EPA 8082A	3-8-21	3-9-21	
Aroclor 1242	ND	0.075	EPA 8082A	3-8-21	3-9-21	
Aroclor 1248	ND	0.075	EPA 8082A	3-8-21	3-9-21	
Aroclor 1254	ND	0.075	EPA 8082A	3-8-21	3-9-21	
Aroclor 1260	0.20	0.075	EPA 8082A	3-8-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	63	46-125				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308S1					
Aroclor 1016	ND	0.050	EPA 8082A	3-8-21	3-9-21	
Aroclor 1221	ND	0.050	EPA 8082A	3-8-21	3-9-21	
Aroclor 1232	ND	0.050	EPA 8082A	3-8-21	3-9-21	
Aroclor 1242	ND	0.050	EPA 8082A	3-8-21	3-9-21	
Aroclor 1248	ND	0.050	EPA 8082A	3-8-21	3-9-21	
Aroclor 1254	ND	0.050	EPA 8082A	3-8-21	3-9-21	
Aroclor 1260	ND	0.050	EPA 8082A	3-8-21	3-9-21	
Surrogate:	Percent Recovery		Control Limits			
DCB	93		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	03-087-02										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.468	0.439	0.500	0.500	0.134	67	61	43-125	6	15	
Surrogate:											
DCB						65	71	46-125			



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

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

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-product					
Laboratory ID:	03-087-01					
Arsenic	ND	10	EPA 6010D	3-9-21	3-9-21	
Barium	7.9	2.5	EPA 6010D	3-9-21	3-9-21	
Cadmium	0.55	0.50	EPA 6010D	3-9-21	3-9-21	
Chromium	2.4	0.50	EPA 6010D	3-9-21	3-9-21	
Lead	81	5.0	EPA 6010D	3-9-21	3-9-21	
Mercury	ND	0.25	EPA 7471B	3-9-21	3-9-21	
Selenium	ND	10	EPA 6010D	3-9-21	3-9-21	
Silver	ND	1.0	EPA 6010D	3-9-21	3-9-21	



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

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

Matrix: Product
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309PH1					
Arsenic	ND	10	EPA 6010D	3-9-21	3-9-21	
Barium	ND	2.5	EPA 6010D	3-9-21	3-9-21	
Cadmium	ND	0.50	EPA 6010D	3-9-21	3-9-21	
Chromium	ND	0.50	EPA 6010D	3-9-21	3-9-21	
Lead	ND	5.0	EPA 6010D	3-9-21	3-9-21	
Selenium	ND	10	EPA 6010D	3-9-21	3-9-21	
Silver	ND	1.0	EPA 6010D	3-9-21	3-9-21	

Laboratory ID:	MB0309P1					
Mercury	ND	0.25	EPA 7471B	3-9-21	3-9-21	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	02-085-01							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Barium	ND	ND	NA	NA	NA	NA	NA	20
Cadmium	ND	ND	NA	NA	NA	NA	NA	20
Chromium	ND	ND	NA	NA	NA	NA	NA	20
Lead	13.0	12.3	NA	NA	NA	NA	6	20
Selenium	ND	ND	NA	NA	NA	NA	NA	20
Silver	ND	2.52	NA	NA	NA	NA	NA	20

Laboratory ID:	02-085-01							
Mercury	ND	ND	NA	NA	NA	NA	NA	20

MATRIX SPIKES

Laboratory ID:	02-085-01									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	86.9	85.6	100	100	ND	87	86	75-125	1	20
Barium	97.0	95.5	100	100	ND	97	96	75-125	2	20
Cadmium	46.1	45.8	50.0	50.0	ND	92	92	75-125	1	20
Chromium	99.2	98.0	100	100	ND	99	98	75-125	1	20
Lead	252	250	250	250	13.0	96	95	75-125	1	20
Selenium	97.3	96.6	100	100	ND	97	97	75-125	1	20
Silver	22.9	22.7	25.0	25.0	ND	91	91	75-125	1	20

Laboratory ID:	02-085-01									
Mercury	0.433	0.437	0.500	0.500	ND	87	87	80-120	1	20



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: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-top					
Laboratory ID:	03-087-02					
Arsenic	ND	15	EPA 6010D	3-9-21	3-9-21	
Barium	86	3.7	EPA 6010D	3-9-21	3-9-21	
Cadmium	2.1	0.75	EPA 6010D	3-9-21	3-9-21	
Chromium	21	0.75	EPA 6010D	3-9-21	3-9-21	
Lead	470	7.5	EPA 6010D	3-9-21	3-9-21	
Mercury	0.39	0.15	EPA 7471B	3-9-21	3-9-21	
Selenium	ND	15	EPA 6010D	3-9-21	3-9-21	
Silver	ND	1.5	EPA 6010D	3-9-21	3-9-21	



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

**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:	MB0309SH1					
Arsenic	ND	10	EPA 6010D	3-9-21	3-9-21	
Barium	ND	2.5	EPA 6010D	3-9-21	3-9-21	
Cadmium	ND	0.50	EPA 6010D	3-9-21	3-9-21	
Chromium	ND	0.50	EPA 6010D	3-9-21	3-9-21	
Lead	ND	5.0	EPA 6010D	3-9-21	3-9-21	
Selenium	ND	10	EPA 6010D	3-9-21	3-9-21	
Silver	ND	1.0	EPA 6010D	3-9-21	3-9-21	

Laboratory ID:	MB0309S1					
Mercury	ND	0.050	EPA 7471B	3-9-21	3-9-21	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	02-087-02							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	57.7	80.3	NA	NA	NA	33	20	L
Cadmium	1.41	1.89	NA	NA	NA	29	20	C
Chromium	13.8	15.4	NA	NA	NA	11	20	
Lead	315	387	NA	NA	NA	21	20	L
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	1.01	NA	NA	NA	NA	20	

Laboratory ID:	02-087-02								
Mercury	0.258	0.176	NA	NA	NA	NA	38	20	L

MATRIX SPIKES

Laboratory ID:	03-087-02										
	MS	MSD	MS	MSD	MS	MSD					
Arsenic	88.6	88.2	100	100	ND	89	88	75-125	1	20	
Barium	141	146	100	100	57.7	83	88	75-125	3	20	
Cadmium	46.0	47.4	50.0	50.0	1.41	89	92	75-125	3	20	
Chromium	104	105	100	100	13.8	90	91	75-125	2	20	
Lead	454	602	250	250	315	56	115	75-125	28	20	V,W
Selenium	82.9	83.8	100	100	ND	83	84	75-125	1	20	
Silver	22.8	24.2	25.0	25.0	ND	91	97	75-125	6	20	

Laboratory ID:	03-087-02										
Mercury	0.650	0.590	0.500	0.500	0.258	78	66	80-120	10	20	V



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Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Product
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-product					
Laboratory ID:	03-087-01					
Benzo[a]anthracene	32	4.0	EPA 8270E/SIM	3-8-21	3-8-21	
Chrysene	21	4.0	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[b]fluoranthene	19	4.0	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo(j,k)fluoranthene	4.1	4.0	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[a]pyrene	20	4.0	EPA 8270E/SIM	3-8-21	3-8-21	
Indeno(1,2,3-c,d)pyrene	10	4.0	EPA 8270E/SIM	3-8-21	3-8-21	
Dibenz[a,h]anthracene	ND	4.0	EPA 8270E/SIM	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>99</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>105</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>111</i>	<i>49 - 121</i>				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Product
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308P1					
Benzo[a]anthracene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Chrysene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[b]fluoranthene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[j,k]fluoranthene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[a]pyrene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Indeno(1,2,3-c,d)pyrene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
Dibenz[a,h]anthracene	ND	0.040	EPA 8270E/SIM	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	97	46 - 113				
Pyrene-d10	102	45 - 114				
Terphenyl-d14	117	49 - 121				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
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 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Product
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0308P1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	1.31	1.27	1.25	1.25	105	102	72 - 129	3	15	
Chrysene	1.28	1.29	1.25	1.25	102	103	66 - 123	1	15	
Benzo[b]fluoranthene	1.37	1.35	1.25	1.25	110	108	68 - 128	1	15	
Benzo(j,k)fluoranthene	1.30	1.28	1.25	1.25	104	102	63 - 128	2	16	
Benzo[a]pyrene	1.34	1.31	1.25	1.25	107	105	66 - 130	2	15	
Indeno(1,2,3-c,d)pyrene	1.31	1.31	1.25	1.25	105	105	63 - 135	0	15	
Dibenz[a,h]anthracene	1.35	1.32	1.25	1.25	108	106	65 - 130	2	15	
<i>Surrogate:</i>										
2-Fluorobiphenyl					100	99	46 - 113			
Pyrene-d10					104	103	45 - 114			
Terphenyl-d14					113	112	49 - 121			



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
 Laboratory Reference: 2103-087
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-top					
Laboratory ID:	03-087-02					
Benzo[a]anthracene	ND	0.20	EPA 8270E/SIM	3-8-21	3-9-21	
Chrysene	0.27	0.20	EPA 8270E/SIM	3-8-21	3-9-21	
Benzo[b]fluoranthene	0.99	0.20	EPA 8270E/SIM	3-8-21	3-9-21	
Benzo(j,k)fluoranthene	ND	0.20	EPA 8270E/SIM	3-8-21	3-9-21	
Benzo[a]pyrene	1.6	0.20	EPA 8270E/SIM	3-8-21	3-9-21	
Indeno(1,2,3-c,d)pyrene	1.5	0.20	EPA 8270E/SIM	3-8-21	3-9-21	
Dibenz[a,h]anthracene	ND	0.20	EPA 8270E/SIM	3-8-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	43	46 - 113				Q
Pyrene-d10	55	45 - 114				
Terphenyl-d14	52	49 - 121				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
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 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	3-8-21	3-8-21	
Chrysene	ND	0.0067	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[j,k]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-8-21	3-8-21	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	3-8-21	3-8-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	3-8-21	3-8-21	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	3-8-21	3-8-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	97	46 - 113				
Pyrene-d10	100	45 - 114				
Terphenyl-d14	104	49 - 121				



Date of Report: March 9, 2021
 Samples Submitted: March 8, 2021
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 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0308S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	0.0859	0.0878	0.0833	0.0833	103	105	72 - 129	2	15	
Chrysene	0.0839	0.0868	0.0833	0.0833	101	104	66 - 123	3	15	
Benzo[b]fluoranthene	0.0916	0.0933	0.0833	0.0833	110	112	68 - 128	2	15	
Benzo(j,k)fluoranthene	0.0809	0.0816	0.0833	0.0833	97	98	63 - 128	1	16	
Benzo[a]pyrene	0.0859	0.0868	0.0833	0.0833	103	104	66 - 130	1	15	
Indeno(1,2,3-c,d)pyrene	0.0865	0.0836	0.0833	0.0833	104	100	63 - 135	3	15	
Dibenz[a,h]anthracene	0.0874	0.0877	0.0833	0.0833	105	105	65 - 130	0	15	
<i>Surrogate:</i>										
<i>2-Fluorobiphenyl</i>					<i>82</i>	<i>85</i>	<i>46 - 113</i>			
<i>Pyrene-d10</i>					<i>83</i>	<i>89</i>	<i>45 - 114</i>			
<i>Terphenyl-d14</i>					<i>99</i>	<i>101</i>	<i>49 - 121</i>			



Date of Report: March 9, 2021
Samples Submitted: March 8, 2021
Laboratory Reference: 2103-087
Project: 397-035

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
UST-A-top	03-087-02	33	3-8-21



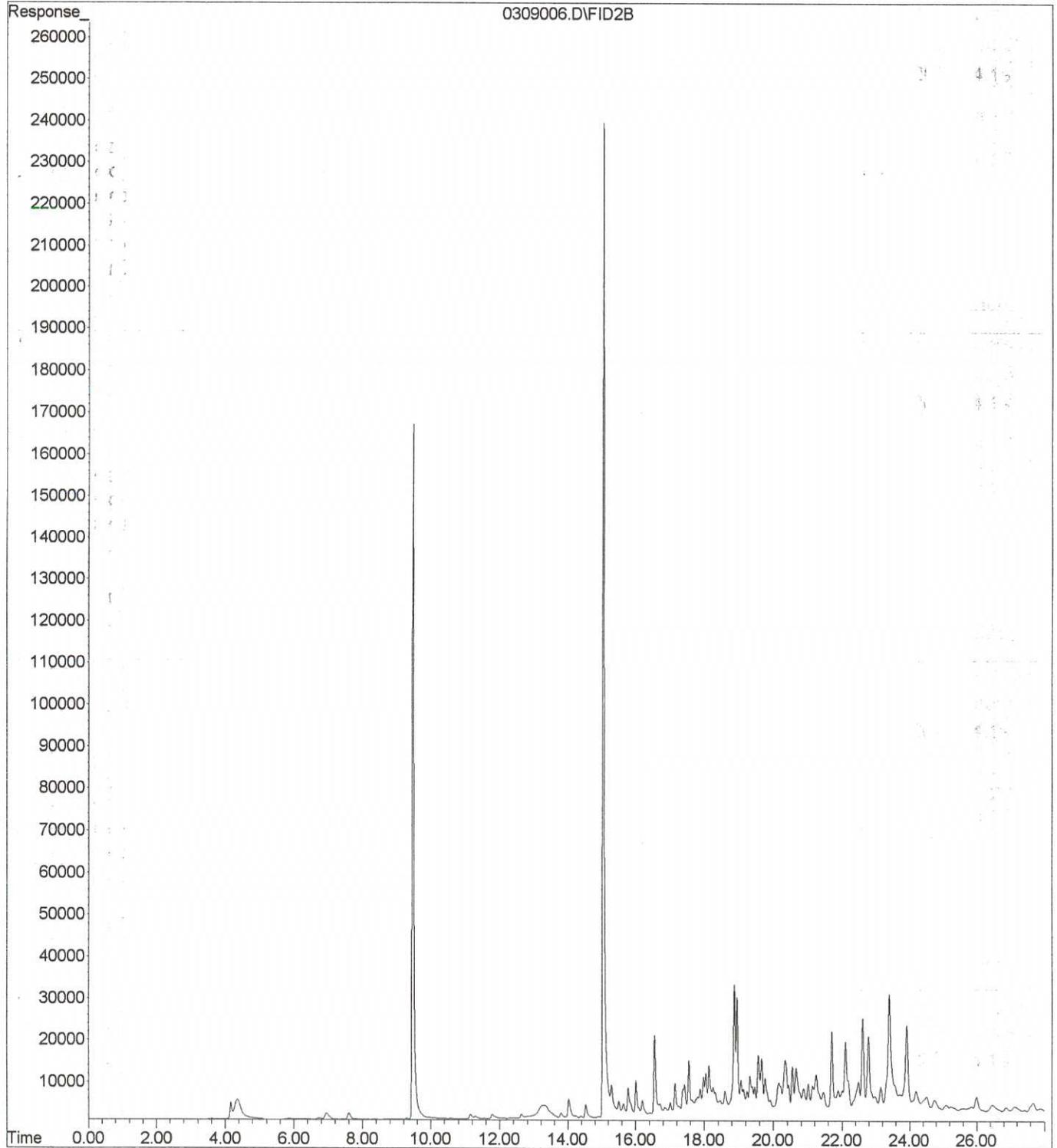


Data Qualifiers and Abbreviations

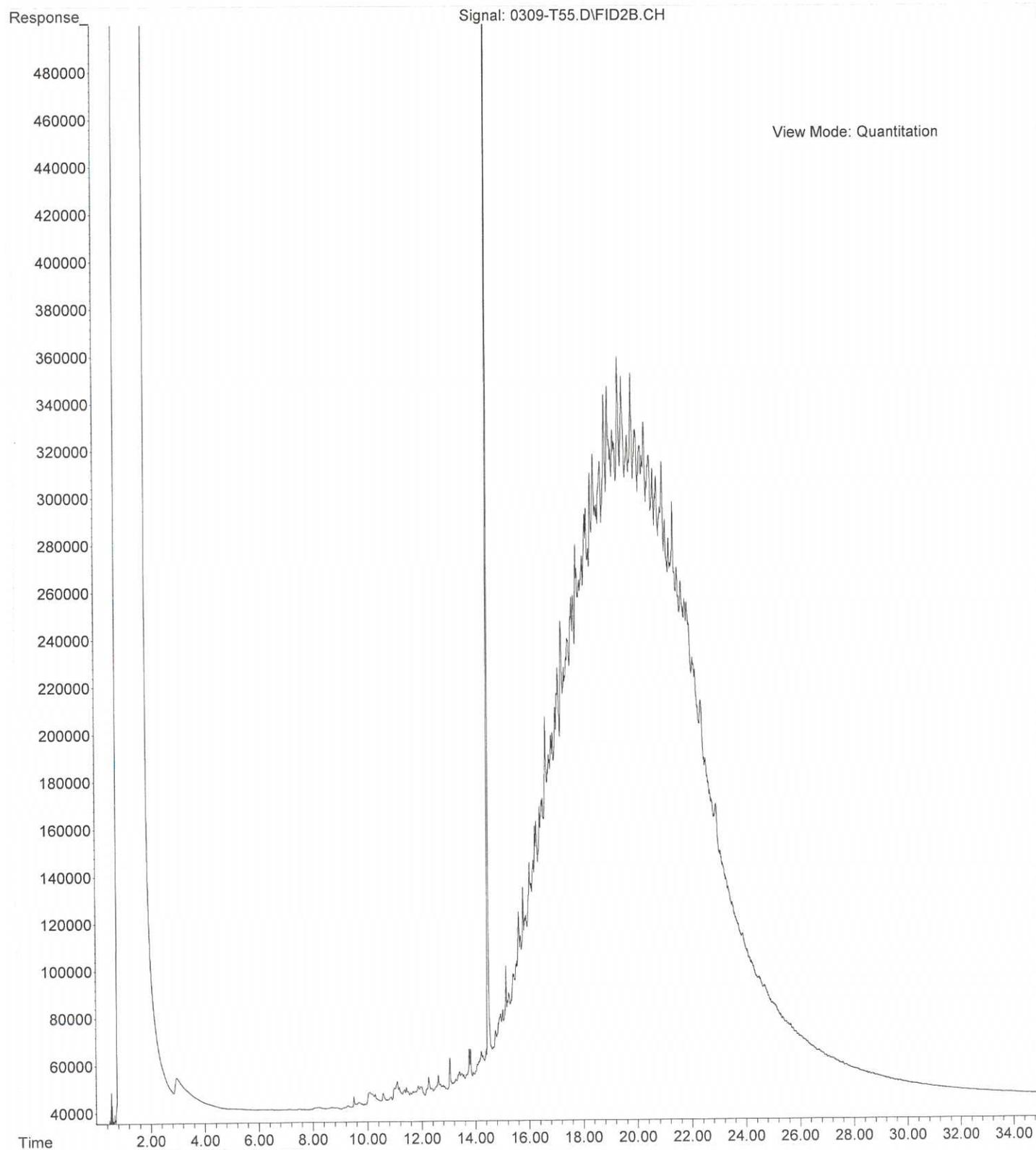
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five 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



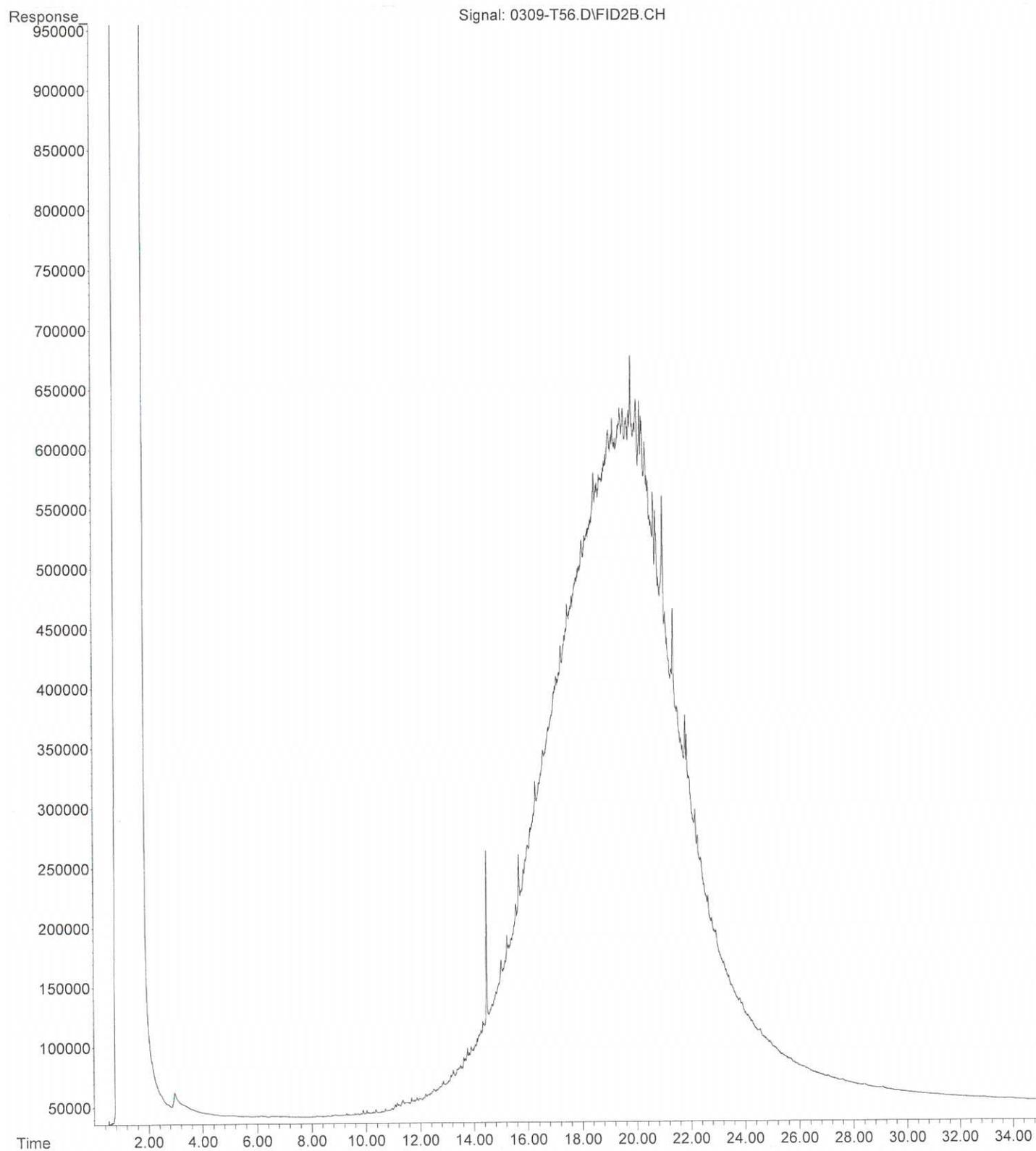
File : E:\ARCHON\DATA\H210309\0309006.D
Operator :
Acquired : 9 Mar 2021 13:10 using AcqMethod 210222G.M
Instrument : Hope
Sample Name: 03-087-01 1:5000 RR
Misc Info : PRODUCT
Vial Number: 6



File :C:\msdchem\1\data\T210309.SEC\0309-T55.D
Operator : JT
Acquired : 09 Mar 2021 10:03 using AcqMethod T210205F.M
Instrument : Teri
Sample Name: 03-087-01 10X
Misc Info :
Vial Number: 55



File : C:\msdchem\1\data\T210309.SEC\0309-T56.D
Operator : JT
Acquired : 09 Mar 2021 10:46 using AcqMethod T210205F.M
Instrument : Teri
Sample Name: 03-087-02 50X
Misc Info :
Vial Number: 56





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

March 10, 2021

Eric Buer
Farallon Consulting
1809 7th Avenue, Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2103-096

Dear Eric:

Enclosed are the analytical results and associated quality control data for samples submitted on March 9, 2021.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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: March 10, 2021
Samples Submitted: March 9, 2021
Laboratory Reference: 2103-096
Project: 397-035

Case Narrative

Samples were collected on March 9, 2021 and received by the laboratory on March 9, 2021. 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: March 10, 2021
 Samples Submitted: March 9, 2021
 Laboratory Reference: 2103-096
 Project: 397-035

**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:	UST-L-bottom					
Laboratory ID:	03-096-01					
Diesel Range Organics	270	29	NWTPH-Dx	3-9-21	3-10-21	
Lube Oil Range Organics	390	58	NWTPH-Dx	3-9-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	78	50-150				
Client ID:	UST-L-S					
Laboratory ID:	03-096-02					
Diesel Range Organics	230	30	NWTPH-Dx	3-9-21	3-10-21	
Lube Oil Range Organics	540	59	NWTPH-Dx	3-9-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	87	50-150				
Client ID:	UST-L-W					
Laboratory ID:	03-096-03					
Diesel Range Organics	ND	30	NWTPH-Dx	3-9-21	3-10-21	
Lube Oil Range Organics	ND	60	NWTPH-Dx	3-9-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	67	50-150				
Client ID:	UST-L-E					
Laboratory ID:	03-096-04					
Diesel Range Organics	ND	28	NWTPH-Dx	3-9-21	3-9-21	
Lube Oil Range Organics	69	57	NWTPH-Dx	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	74	50-150				
Client ID:	UST-L-N					
Laboratory ID:	03-096-05					
Diesel Range Organics	77	33	NWTPH-Dx	3-9-21	3-10-21	
Lube Oil Range Organics	190	67	NWTPH-Dx	3-9-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	70	50-150				
Client ID:	UST-L-fill					
Laboratory ID:	03-096-06					
Diesel Fuel #2	63000	580	NWTPH-Dx	3-9-21	3-9-21	
Lube Oil Range Organics	ND	2500	NWTPH-Dx	3-9-21	3-9-21	U1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	64	50-150				



Date of Report: March 10, 2021
 Samples Submitted: March 9, 2021
 Laboratory Reference: 2103-096
 Project: 397-035

**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:	UST-L-SP1					
Laboratory ID:	03-096-07					
Diesel Range Organics	150	29	NWTPH-Dx	3-9-21	3-10-21	
Lube Oil Range Organics	230	58	NWTPH-Dx	3-9-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	73	50-150				



Date of Report: March 10, 2021
 Samples Submitted: March 9, 2021
 Laboratory Reference: 2103-096
 Project: 397-035

**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:	MB0309S1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-9-21	3-9-21	
Lube Oil Range Organics	ND	50	NWTPH-Dx	3-9-21	3-9-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0309S1							
	ORIG	DUP						
Diesel Fuel #2	95.3	88.7	NA	NA	NA	7	NA	
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				103	98	50-150		



Date of Report: March 10, 2021
Samples Submitted: March 9, 2021
Laboratory Reference: 2103-096
Project: 397-035

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
UST-L-bottom	03-096-01	14	3-9-21
UST-L-S	03-096-02	15	3-9-21
UST-L-W	03-096-03	16	3-9-21
UST-L-E	03-096-04	11	3-9-21
UST-L-N	03-096-05	25	3-9-21
UST-L-fill	03-096-06	79	3-9-21
UST-L-SP1	03-096-07	14	3-9-21



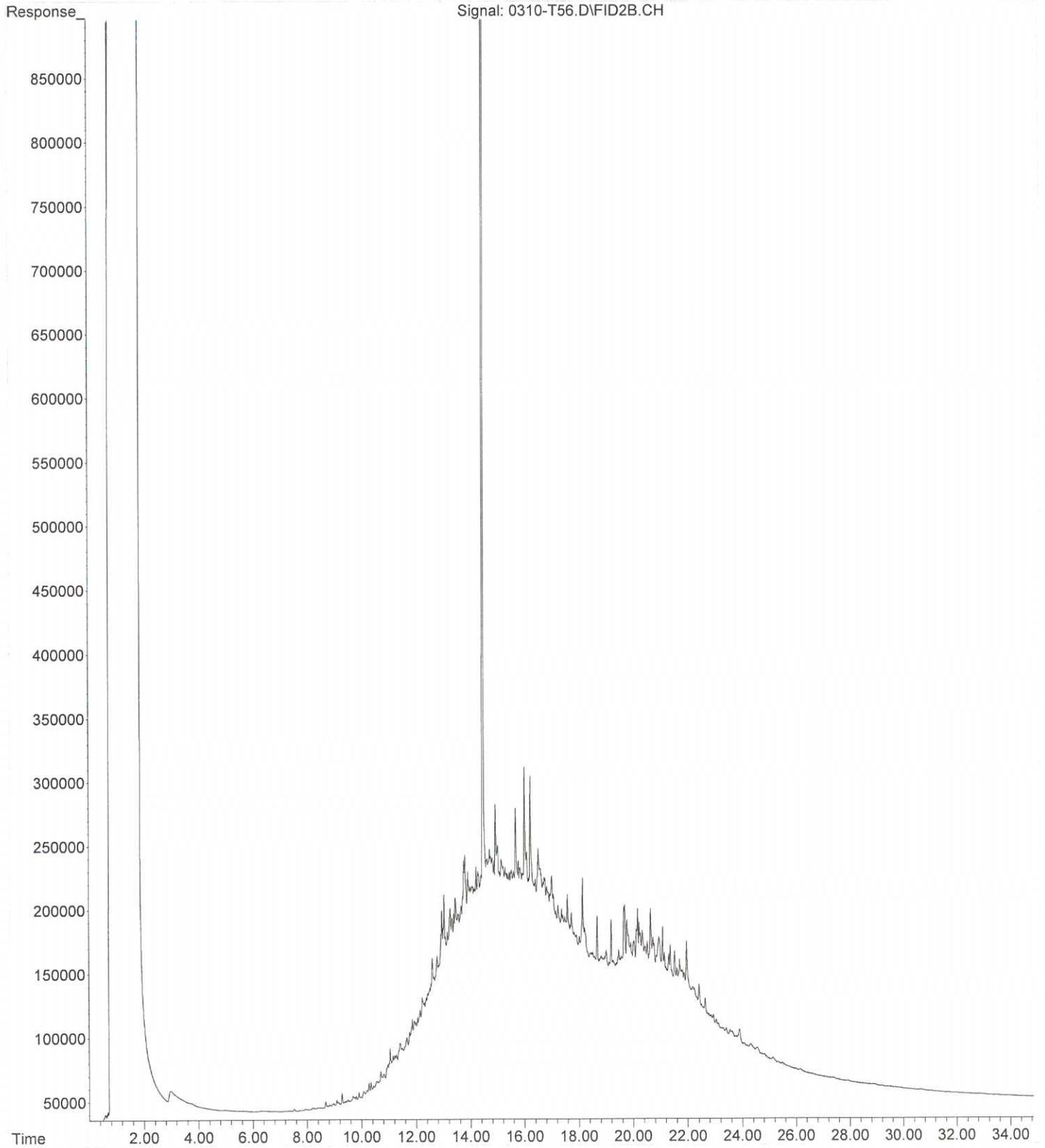


Data Qualifiers and Abbreviations

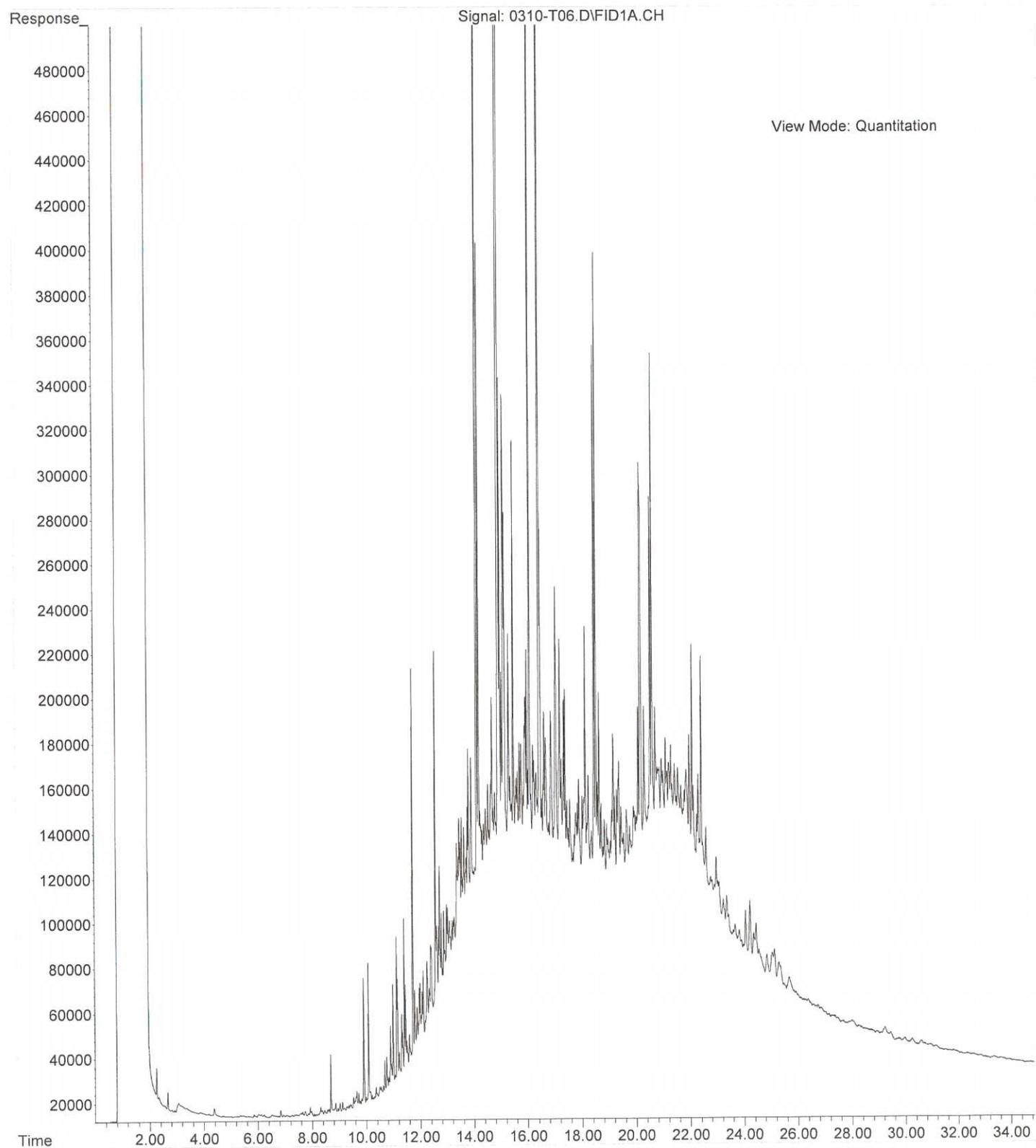
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five 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



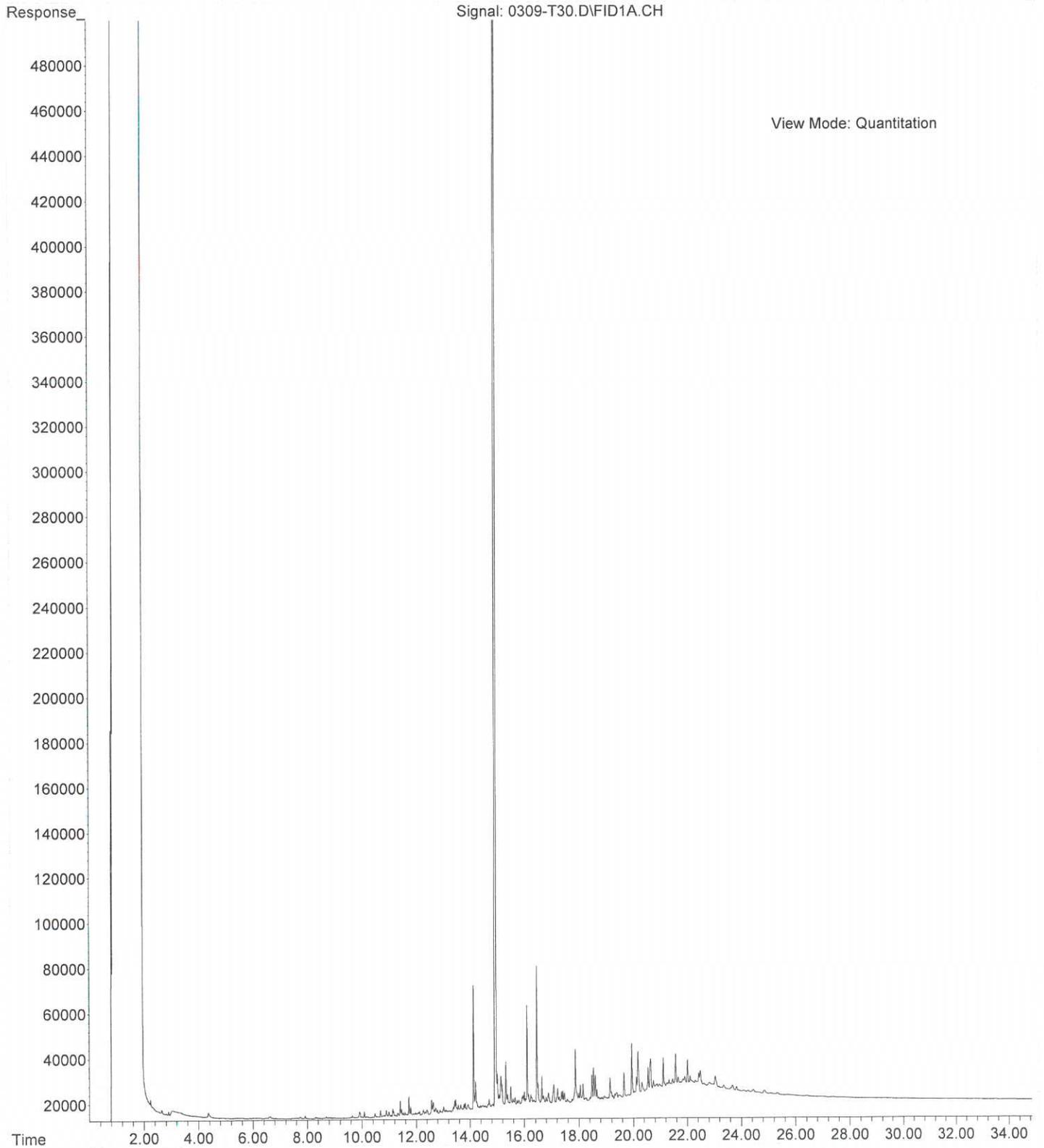
File :C:\msdchem\1\data\T210310.SEC\0310-T56.D
Operator : JT
Acquired : 10 Mar 2021 12:11 using AcqMethod T210205F.M
Instrument : Teri
Sample Name: 03-096-01
Misc Info :
Vial Number: 56



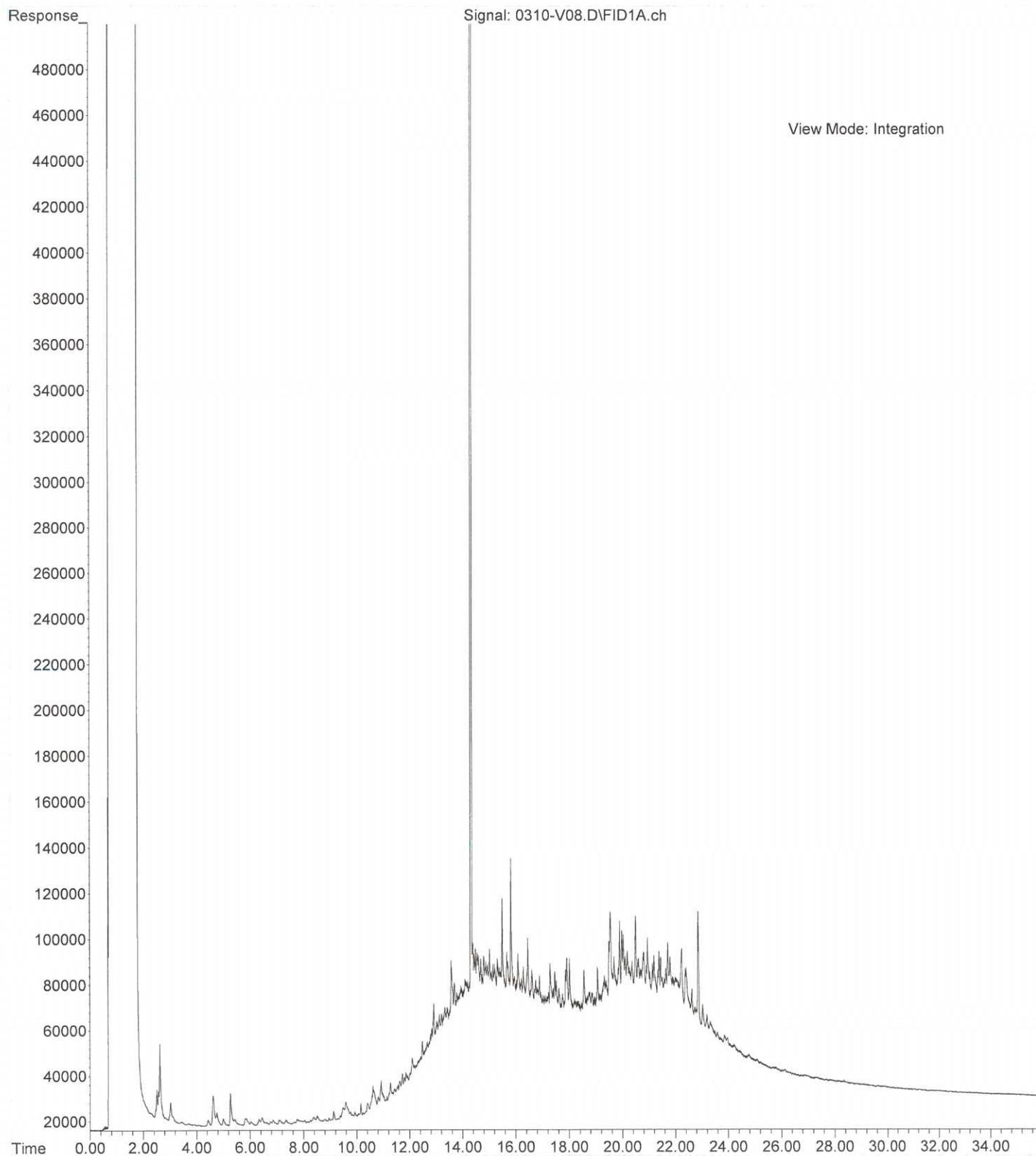
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Operator : JT
Acquired : 10 Mar 2021 12:11 using AcqMethod T210205F.M
Instrument : Teri
Sample Name: 03-096-02
Misc Info :
Vial Number: 6



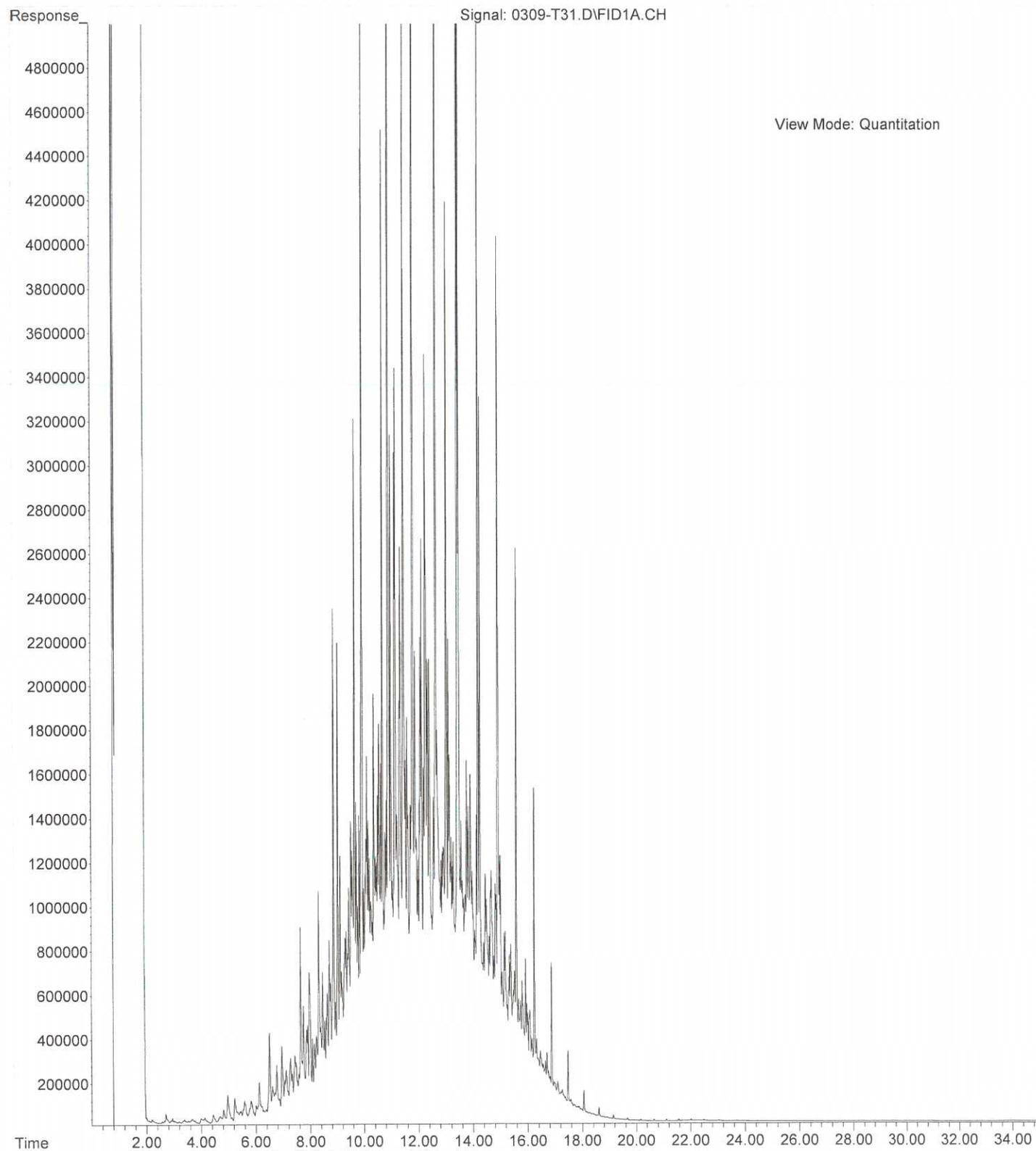
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Acquired : 10 Mar 2021 5:45 using AcqMethod T210205F.M
Instrument : Teri
Sample Name: 03-096-04
Misc Info :
Vial Number: 30



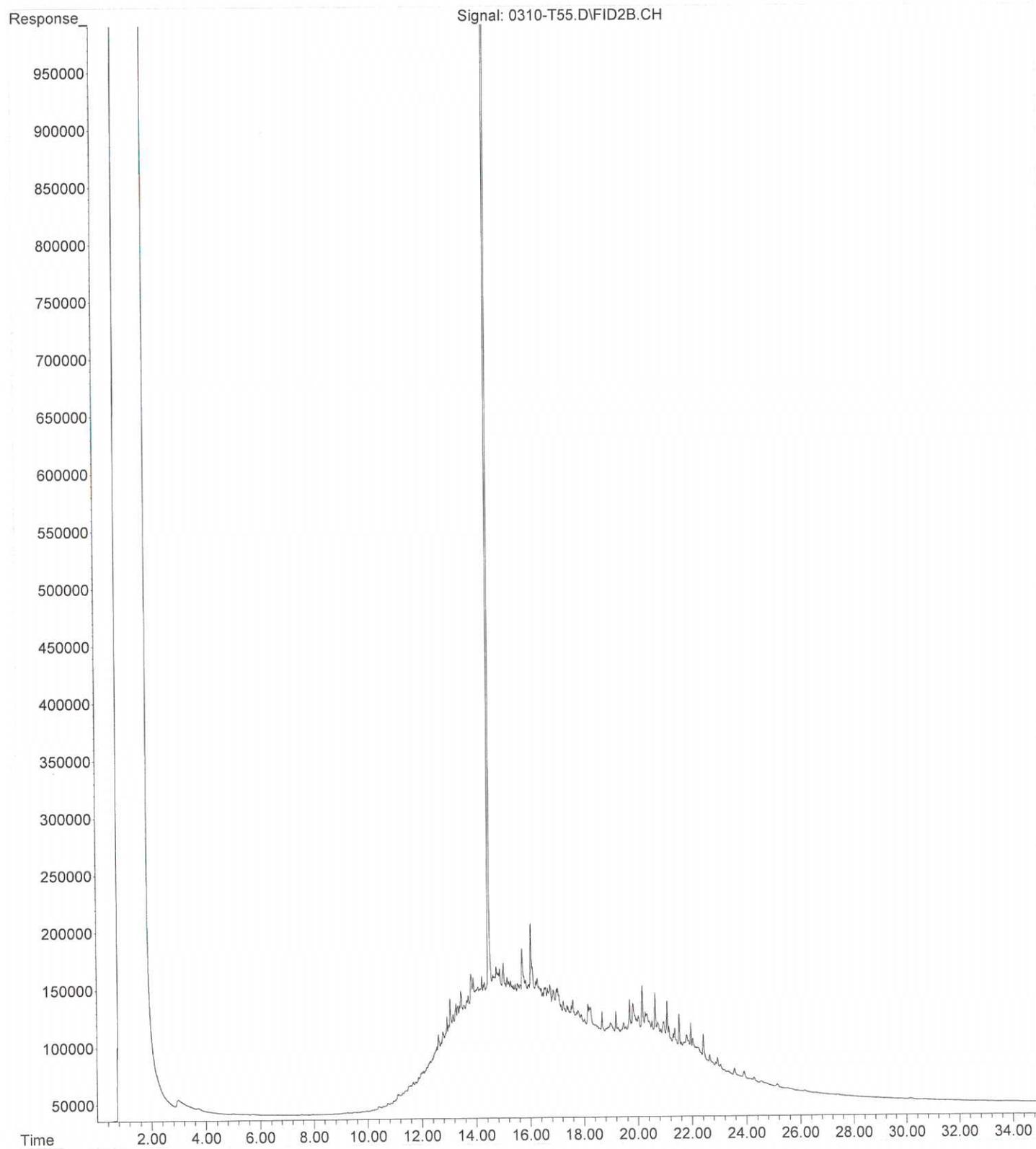
File : C:\msdchem\2\data\V210310\0310-V08.D
Operator : JT
Acquired : 10 Mar 2021 12:04 using AcqMethod V210205F.M
Instrument : Vigo
Sample Name: 03-096-05
Misc Info :
Vial Number: 8



File : C:\msdchem\1\data\T210309\0309-T31.D
Operator : JT
Acquired : 10 Mar 2021 6:27 using AcqMethod T210205F.M
Instrument : Teri
Sample Name: 03-096-06 5X
Misc Info :
Vial Number: 31



File : C:\msdchem\1\data\T210310.SEC\0310-T55.D
Operator : JT
Acquired : 10 Mar 2021 11:28 using AcqMethod T210205F.M
Instrument : Teri
Sample Name : 03-096-07
Misc Info :
Vial Number : 55





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

March 16, 2021

Eric Buer
Farallon Consulting
1809 7th Avenue, Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2103-113

Dear Eric:

Enclosed are the analytical results and associated quality control data for samples submitted on March 10, 2021.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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: March 16, 2021
Samples Submitted: March 10, 2021
Laboratory Reference: 2103-113
Project: 397-035

Case Narrative

Samples were collected on March 9 and 10, 2021 and received by the laboratory on March 10, 2021. 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

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

The Matrix Spike/ Matrix Spike Duplicate recoveries for Mercury are outside control limits due to matrix inhomogeneity. The samples were re-extracted and re-analyzed with similar results. The Spike Blank recovery was 107 %.

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



Date of Report: March 16, 2021
 Samples Submitted: March 10, 2021
 Laboratory Reference: 2103-113
 Project: 397-035

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-bottom					
Laboratory ID:	03-113-03					
Gasoline	ND	14	NWTPH-Gx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	58-129				
Client ID:	UST-A-E					
Laboratory ID:	03-113-04					
Gasoline	ND	6.4	NWTPH-Gx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	58-129				
Client ID:	UST-A-S					
Laboratory ID:	03-113-05					
Gasoline	ND	6.1	NWTPH-Gx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	58-129				
Client ID:	UST-A-N					
Laboratory ID:	03-113-06					
Gasoline	ND	6.7	NWTPH-Gx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	58-129				
Client ID:	UST-A-W					
Laboratory ID:	03-113-07					
Gasoline	ND	6.1	NWTPH-Gx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	58-129				



Date of Report: March 16, 2021
 Samples Submitted: March 10, 2021
 Laboratory Reference: 2103-113
 Project: 397-035

**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:	MB0310S1					
Gasoline	ND	5.0	NWTPH-Gx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	93	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-058-09							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				99	100	58-129		



Date of Report: March 16, 2021
 Samples Submitted: March 10, 2021
 Laboratory Reference: 2103-113
 Project: 397-035

**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:	UST-L-SP2					
Laboratory ID:	03-113-01					
Diesel Range Organics	33	30	NWTPH-Dx	3-10-21	3-10-21	N
Lube Oil Range Organics	85	61	NWTPH-Dx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	100	50-150				

Client ID:	UST-L-SP3					
Laboratory ID:	03-113-02					
Diesel Range Organics	41	30	NWTPH-Dx	3-10-21	3-10-21	N
Lube Oil Range Organics	140	59	NWTPH-Dx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

Client ID:	UST-A-bottom					
Laboratory ID:	03-113-03					
Diesel Range Organics	330	210	NWTPH-Dx	3-10-21	3-10-21	N
Lube Oil	3900	430	NWTPH-Dx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	97	50-150				

Client ID:	UST-A-E					
Laboratory ID:	03-113-04					
Diesel Range Organics	ND	30	NWTPH-Dx	3-10-21	3-10-21	
Lube Oil Range Organics	ND	60	NWTPH-Dx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Client ID:	UST-A-S					
Laboratory ID:	03-113-05					
Diesel Range Organics	37	30	NWTPH-Dx	3-10-21	3-10-21	N
Lube Oil	380	59	NWTPH-Dx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	104	50-150				

Client ID:	UST-A-N					
Laboratory ID:	03-113-06					
Diesel Range Organics	ND	31	NWTPH-Dx	3-10-21	3-10-21	
Lube Oil Range Organics	ND	63	NWTPH-Dx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				



Date of Report: March 16, 2021
 Samples Submitted: March 10, 2021
 Laboratory Reference: 2103-113
 Project: 397-035

**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:	UST-A-W					
Laboratory ID:	03-113-07					
Diesel Range Organics	ND	30	NWTPH-Dx	3-10-21	3-10-21	
Lube Oil	92	61	NWTPH-Dx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	115	50-150				



Date of Report: March 16, 2021
 Samples Submitted: March 10, 2021
 Laboratory Reference: 2103-113
 Project: 397-035

**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:	MB0310S1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-10-21	3-10-21	
Lube Oil Range Organics	ND	50	NWTPH-Dx	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	76	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0310S1							
	ORIG	DUP						
Diesel Fuel #2	76.4	71.7	NA	NA	NA	NA	6	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				84	81	50-150		



Date of Report: March 16, 2021
 Samples Submitted: March 10, 2021
 Laboratory Reference: 2103-113
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-bottom					
Laboratory ID:	03-113-03					
Dichlorodifluoromethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Chloromethane	ND	0.018	EPA 8260D	3-10-21	3-10-21	
Vinyl Chloride	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Bromomethane	ND	0.013	EPA 8260D	3-10-21	3-10-21	
Chloroethane	ND	0.013	EPA 8260D	3-10-21	3-10-21	
Trichlorofluoromethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Iodomethane	ND	0.013	EPA 8260D	3-10-21	3-10-21	
Methylene Chloride	ND	0.017	EPA 8260D	3-10-21	3-10-21	
(trans) 1,2-Dichloroethene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
2,2-Dichloropropane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
(cis) 1,2-Dichloroethene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Bromochloromethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Chloroform	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
1,1,1-Trichloroethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Carbon Tetrachloride	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloropropene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Benzene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloroethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Trichloroethene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloropropane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Dibromomethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Bromodichloromethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
2-Chloroethyl Vinyl Ether	ND	0.013	EPA 8260D	3-10-21	3-10-21	
(cis) 1,3-Dichloropropene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Toluene	ND	0.013	EPA 8260D	3-10-21	3-10-21	
(trans) 1,3-Dichloropropene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-bottom					
Laboratory ID:	03-113-03					
1,1,2-Trichloroethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Tetrachloroethene	0.0051	0.0027	EPA 8260D	3-10-21	3-10-21	
1,3-Dichloropropane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Dibromochloromethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromoethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Chlorobenzene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
1,1,1,2-Tetrachloroethane	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Ethylbenzene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
m,p-Xylene	ND	0.0053	EPA 8260D	3-10-21	3-10-21	
o-Xylene	ND	0.0027	EPA 8260D	3-10-21	3-10-21	
Bromoform	ND	0.013	EPA 8260D	3-10-21	3-10-21	
Bromobenzene	ND	0.13	EPA 8260D	3-11-21	3-11-21	
1,1,1,2-Tetrachloroethane	ND	0.13	EPA 8260D	3-11-21	3-11-21	
1,2,3-Trichloropropane	ND	0.13	EPA 8260D	3-11-21	3-11-21	
2-Chlorotoluene	ND	0.13	EPA 8260D	3-11-21	3-11-21	
4-Chlorotoluene	ND	0.13	EPA 8260D	3-11-21	3-11-21	
1,3-Dichlorobenzene	ND	0.13	EPA 8260D	3-11-21	3-11-21	
1,4-Dichlorobenzene	ND	0.13	EPA 8260D	3-11-21	3-11-21	
1,2-Dichlorobenzene	ND	0.13	EPA 8260D	3-11-21	3-11-21	
1,2-Dibromo-3-chloropropane	ND	0.64	EPA 8260D	3-11-21	3-11-21	
1,2,4-Trichlorobenzene	ND	0.13	EPA 8260D	3-11-21	3-11-21	
Hexachlorobutadiene	ND	0.64	EPA 8260D	3-11-21	3-11-21	
1,2,3-Trichlorobenzene	ND	0.13	EPA 8260D	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>92</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>79</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-E					
Laboratory ID:	03-113-04					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Chloromethane	ND	0.0076	EPA 8260D	3-10-21	3-10-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Bromomethane	ND	0.0056	EPA 8260D	3-10-21	3-10-21	
Chloroethane	ND	0.0056	EPA 8260D	3-10-21	3-10-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Iodomethane	ND	0.0056	EPA 8260D	3-10-21	3-10-21	
Methylene Chloride	ND	0.0071	EPA 8260D	3-10-21	3-10-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Bromochloromethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Chloroform	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Benzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Trichloroethene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Dibromomethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260D	3-10-21	3-10-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Toluene	ND	0.0056	EPA 8260D	3-10-21	3-10-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-E					
Laboratory ID:	03-113-04					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Tetrachloroethene	0.0030	0.0011	EPA 8260D	3-10-21	3-10-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Ethylbenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
m,p-Xylene	ND	0.0022	EPA 8260D	3-10-21	3-10-21	
o-Xylene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Bromoform	ND	0.0056	EPA 8260D	3-10-21	3-10-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260D	3-10-21	3-10-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Hexachlorobutadiene	ND	0.0056	EPA 8260D	3-10-21	3-10-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-S					
Laboratory ID:	03-113-05					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Chloromethane	ND	0.0070	EPA 8260D	3-10-21	3-10-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromomethane	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
Chloroethane	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Iodomethane	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
Methylene Chloride	ND	0.0065	EPA 8260D	3-10-21	3-10-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Chloroform	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Benzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
2-Chloroethyl Vinyl Ether	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Toluene	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-S					
Laboratory ID:	03-113-05					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
m,p-Xylene	ND	0.0021	EPA 8260D	3-10-21	3-10-21	
o-Xylene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromoform	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Hexachlorobutadiene	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-N					
Laboratory ID:	03-113-06					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Chloromethane	ND	0.0074	EPA 8260D	3-10-21	3-10-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Bromomethane	ND	0.0054	EPA 8260D	3-10-21	3-10-21	
Chloroethane	ND	0.0054	EPA 8260D	3-10-21	3-10-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Iodomethane	ND	0.0054	EPA 8260D	3-10-21	3-10-21	
Methylene Chloride	ND	0.0069	EPA 8260D	3-10-21	3-10-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Bromochloromethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Chloroform	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Benzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Trichloroethene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Dibromomethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260D	3-10-21	3-10-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Toluene	ND	0.0054	EPA 8260D	3-10-21	3-10-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-N					
Laboratory ID:	03-113-06					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Tetrachloroethene	0.0012	0.0011	EPA 8260D	3-10-21	3-10-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Ethylbenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
m,p-Xylene	ND	0.0022	EPA 8260D	3-10-21	3-10-21	
o-Xylene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Bromoform	ND	0.0054	EPA 8260D	3-10-21	3-10-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260D	3-10-21	3-10-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	3-10-21	3-10-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-W					
Laboratory ID:	03-113-07					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Chloromethane	ND	0.0070	EPA 8260D	3-10-21	3-10-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromomethane	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
Chloroethane	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Iodomethane	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
Methylene Chloride	ND	0.0065	EPA 8260D	3-10-21	3-10-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Chloroform	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Benzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
2-Chloroethyl Vinyl Ether	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Toluene	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-W					
Laboratory ID:	03-113-07					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
m,p-Xylene	ND	0.0021	EPA 8260D	3-10-21	3-10-21	
o-Xylene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromoform	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Hexachlorobutadiene	ND	0.0052	EPA 8260D	3-10-21	3-10-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0310S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Chloromethane	ND	0.0068	EPA 8260D	3-10-21	3-10-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromomethane	ND	0.0050	EPA 8260D	3-10-21	3-10-21	
Chloroethane	ND	0.0050	EPA 8260D	3-10-21	3-10-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Iodomethane	ND	0.0050	EPA 8260D	3-10-21	3-10-21	
Methylene Chloride	ND	0.0063	EPA 8260D	3-10-21	3-10-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Chloroform	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Benzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-10-21	3-10-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Toluene	ND	0.0050	EPA 8260D	3-10-21	3-10-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0310S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-10-21	3-10-21	
o-Xylene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Bromoform	ND	0.0050	EPA 8260D	3-10-21	3-10-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-10-21	3-10-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-10-21	3-10-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0311S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Chloromethane	ND	0.0075	EPA 8260D	3-11-21	3-11-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	3-11-21	3-11-21	
Bromomethane	ND	0.0050	EPA 8260D	3-11-21	3-11-21	
Chloroethane	ND	0.0050	EPA 8260D	3-11-21	3-11-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Iodomethane	ND	0.0050	EPA 8260D	3-11-21	3-11-21	
Methylene Chloride	ND	0.0068	EPA 8260D	3-11-21	3-11-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Chloroform	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Benzene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-11-21	3-11-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Toluene	ND	0.0050	EPA 8260D	3-11-21	3-11-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0311S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-11-21	3-11-21	
o-Xylene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Bromoform	ND	0.0050	EPA 8260D	3-11-21	3-11-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-11-21	3-11-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-11-21	3-11-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-11-21	3-11-21	
<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>102</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>71-130</i>				



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**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0310S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0493	0.0453	0.0500	0.0500	99	91	55-126	8	17	
Benzene	0.0473	0.0455	0.0500	0.0500	95	91	65-121	4	16	
Trichloroethene	0.0510	0.0488	0.0500	0.0500	102	98	74-126	4	16	
Toluene	0.0464	0.0444	0.0500	0.0500	93	89	71-121	4	16	
Chlorobenzene	0.0469	0.0455	0.0500	0.0500	94	91	72-123	3	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					104	102	74-131			
<i>Toluene-d8</i>					99	100	78-128			
<i>4-Bromofluorobenzene</i>					100	104	71-130			
Laboratory ID:	SB0311S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0474	0.0481	0.0500	0.0500	95	96	55-126	1	17	
Benzene	0.0428	0.0448	0.0500	0.0500	86	90	65-121	5	16	
Trichloroethene	0.0514	0.0526	0.0500	0.0500	103	105	74-126	2	16	
Toluene	0.0449	0.0468	0.0500	0.0500	90	94	71-121	4	16	
Chlorobenzene	0.0480	0.0487	0.0500	0.0500	96	97	72-123	1	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					97	101	74-131			
<i>Toluene-d8</i>					99	101	78-128			
<i>4-Bromofluorobenzene</i>					104	104	71-130			



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-bottom					
Laboratory ID:	03-113-03					
Benzo[a]anthracene	0.097	0.023	EPA 8270E/SIM	3-10-21	3-11-21	
Chrysene	0.10	0.023	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo[b]fluoranthene	0.10	0.057	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo(j,k)fluoranthene	ND	0.057	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo[a]pyrene	0.069	0.057	EPA 8270E/SIM	3-10-21	3-11-21	
Indeno(1,2,3-c,d)pyrene	0.076	0.057	EPA 8270E/SIM	3-10-21	3-11-21	
Dibenz[a,h]anthracene	ND	0.057	EPA 8270E/SIM	3-10-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>67</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>74</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>78</i>	<i>49 - 121</i>				



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 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-E					
Laboratory ID:	03-113-04					
Benzo[a]anthracene	0.0082	0.0080	EPA 8270E/SIM	3-10-21	3-10-21	
Chrysene	0.0092	0.0080	EPA 8270E/SIM	3-10-21	3-10-21	
Benzo[b]fluoranthene	0.013	0.0080	EPA 8270E/SIM	3-10-21	3-10-21	
Benzo(j,k)fluoranthene	ND	0.0080	EPA 8270E/SIM	3-10-21	3-10-21	
Benzo[a]pyrene	0.011	0.0080	EPA 8270E/SIM	3-10-21	3-10-21	
Indeno(1,2,3-c,d)pyrene	0.0086	0.0080	EPA 8270E/SIM	3-10-21	3-10-21	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>86</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>105</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>111</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-S					
Laboratory ID:	03-113-05					
Benzo[a]anthracene	0.028	0.0079	EPA 8270E/SIM	3-10-21	3-11-21	
Chrysene	0.023	0.0079	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo[b]fluoranthene	0.023	0.0079	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo(j,k)fluoranthene	0.0080	0.0079	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo[a]pyrene	0.027	0.0079	EPA 8270E/SIM	3-10-21	3-11-21	
Indeno(1,2,3-c,d)pyrene	0.014	0.0079	EPA 8270E/SIM	3-10-21	3-11-21	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270E/SIM	3-10-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>93</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>99</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>100</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-N					
Laboratory ID:	03-113-06					
Benzo[a]anthracene	0.0085	0.0084	EPA 8270E/SIM	3-10-21	3-11-21	
Chrysene	0.0090	0.0084	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo[b]fluoranthene	0.012	0.0084	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo(j,k)fluoranthene	ND	0.0084	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo[a]pyrene	0.0097	0.0084	EPA 8270E/SIM	3-10-21	3-11-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0084	EPA 8270E/SIM	3-10-21	3-11-21	
Dibenz[a,h]anthracene	ND	0.0084	EPA 8270E/SIM	3-10-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>83</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>93</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>101</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-W					
Laboratory ID:	03-113-07					
Benzo[a]anthracene	0.027	0.0081	EPA 8270E/SIM	3-10-21	3-11-21	
Chrysene	0.029	0.0081	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo[b]fluoranthene	0.043	0.0081	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo(j,k)fluoranthene	0.012	0.0081	EPA 8270E/SIM	3-10-21	3-11-21	
Benzo[a]pyrene	0.033	0.0081	EPA 8270E/SIM	3-10-21	3-11-21	
Indeno(1,2,3-c,d)pyrene	0.030	0.0081	EPA 8270E/SIM	3-10-21	3-11-21	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	3-10-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>77</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>94</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>92</i>	<i>49 - 121</i>				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0310S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	3-10-21	3-10-21	
Chrysene	ND	0.0067	EPA 8270E/SIM	3-10-21	3-10-21	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-10-21	3-10-21	
Benzo[j,k]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-10-21	3-10-21	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	3-10-21	3-10-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	3-10-21	3-10-21	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>100</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>100</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>114</i>	<i>49 - 121</i>				



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**PAHs 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:	03-100-01										
	MS	MSD	MS	MSD		MS	MSD				
Benzo[a]anthracene	0.0677	0.0751	0.0833	0.0833	ND	81	90	56 - 136	10	25	
Chrysene	0.0682	0.0767	0.0833	0.0833	ND	82	92	49 - 130	12	22	
Benzo[b]fluoranthene	0.0679	0.0772	0.0833	0.0833	ND	82	93	51 - 135	13	26	
Benzo(j,k)fluoranthene	0.0720	0.0773	0.0833	0.0833	ND	86	93	56 - 124	7	23	
Benzo[a]pyrene	0.0687	0.0773	0.0833	0.0833	ND	82	93	54 - 133	12	26	
Indeno(1,2,3-c,d)pyrene	0.0685	0.0759	0.0833	0.0833	ND	82	91	52 - 134	10	20	
Dibenz[a,h]anthracene	0.0656	0.0721	0.0833	0.0833	ND	79	87	58 - 127	9	17	
<i>Surrogate:</i>											
2-Fluorobiphenyl						85	85	46 - 113			
Pyrene-d10						85	95	45 - 114			
Terphenyl-d14						92	104	49 - 121			



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 Project: 397-035

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-bottom					
Laboratory ID:	03-113-03					
Aroclor 1016	ND	0.085	EPA 8082A	3-10-21	3-11-21	
Aroclor 1221	ND	0.085	EPA 8082A	3-10-21	3-11-21	
Aroclor 1232	ND	0.085	EPA 8082A	3-10-21	3-11-21	
Aroclor 1242	ND	0.085	EPA 8082A	3-10-21	3-11-21	
Aroclor 1248	ND	0.085	EPA 8082A	3-10-21	3-11-21	
Aroclor 1254	ND	0.085	EPA 8082A	3-10-21	3-11-21	
Aroclor 1260	ND	0.085	EPA 8082A	3-10-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	91	46-125				
Client ID:	UST-A-E					
Laboratory ID:	03-113-04					
Aroclor 1016	ND	0.060	EPA 8082A	3-10-21	3-11-21	
Aroclor 1221	ND	0.060	EPA 8082A	3-10-21	3-11-21	
Aroclor 1232	ND	0.060	EPA 8082A	3-10-21	3-11-21	
Aroclor 1242	ND	0.060	EPA 8082A	3-10-21	3-11-21	
Aroclor 1248	ND	0.060	EPA 8082A	3-10-21	3-11-21	
Aroclor 1254	ND	0.060	EPA 8082A	3-10-21	3-11-21	
Aroclor 1260	ND	0.060	EPA 8082A	3-10-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	94	46-125				
Client ID:	UST-A-S					
Laboratory ID:	03-113-05					
Aroclor 1016	ND	0.059	EPA 8082A	3-10-21	3-11-21	
Aroclor 1221	ND	0.059	EPA 8082A	3-10-21	3-11-21	
Aroclor 1232	ND	0.059	EPA 8082A	3-10-21	3-11-21	
Aroclor 1242	ND	0.059	EPA 8082A	3-10-21	3-11-21	
Aroclor 1248	ND	0.059	EPA 8082A	3-10-21	3-11-21	
Aroclor 1254	ND	0.059	EPA 8082A	3-10-21	3-11-21	
Aroclor 1260	ND	0.059	EPA 8082A	3-10-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	98	46-125				



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 Project: 397-035

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-N					
Laboratory ID:	03-113-06					
Aroclor 1016	ND	0.063	EPA 8082A	3-10-21	3-11-21	
Aroclor 1221	ND	0.063	EPA 8082A	3-10-21	3-11-21	
Aroclor 1232	ND	0.063	EPA 8082A	3-10-21	3-11-21	
Aroclor 1242	ND	0.063	EPA 8082A	3-10-21	3-11-21	
Aroclor 1248	ND	0.063	EPA 8082A	3-10-21	3-11-21	
Aroclor 1254	ND	0.063	EPA 8082A	3-10-21	3-11-21	
Aroclor 1260	ND	0.063	EPA 8082A	3-10-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	<i>90</i>	<i>46-125</i>				

Client ID:	UST-A-W					
Laboratory ID:	03-113-07					
Aroclor 1016	ND	0.061	EPA 8082A	3-10-21	3-11-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-10-21	3-11-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-10-21	3-11-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-10-21	3-11-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-10-21	3-11-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-10-21	3-11-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-10-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	<i>84</i>	<i>46-125</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 10, 2021
 Laboratory Reference: 2103-113
 Project: 397-035

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0310S1					
Aroclor 1016	ND	0.050	EPA 8082A	3-10-21	3-10-21	
Aroclor 1221	ND	0.050	EPA 8082A	3-10-21	3-10-21	
Aroclor 1232	ND	0.050	EPA 8082A	3-10-21	3-10-21	
Aroclor 1242	ND	0.050	EPA 8082A	3-10-21	3-10-21	
Aroclor 1248	ND	0.050	EPA 8082A	3-10-21	3-10-21	
Aroclor 1254	ND	0.050	EPA 8082A	3-10-21	3-10-21	
Aroclor 1260	ND	0.050	EPA 8082A	3-10-21	3-10-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	90		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	03-100-01										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.361	0.373	0.500	0.500	ND	72	75	43-125	3	15	
<i>Surrogate:</i>											
DCB						77	73	46-125			



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 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-bottom					
Laboratory ID:	03-113-03					
Arsenic	ND	17	EPA 6010D	3-10-21	3-10-21	
Barium	1400	21	EPA 6010D	3-10-21	3-10-21	
Cadmium	1.9	0.85	EPA 6010D	3-10-21	3-10-21	
Chromium	170	0.85	EPA 6010D	3-10-21	3-10-21	
Lead	1700	8.5	EPA 6010D	3-10-21	3-10-21	
Mercury	0.38	0.17	EPA 7471B	3-11-21	3-11-21	
Selenium	ND	17	EPA 6010D	3-10-21	3-10-21	
Silver	ND	1.7	EPA 6010D	3-10-21	3-10-21	

Client ID:	UST-A-E					
Laboratory ID:	03-113-04					
Arsenic	ND	12	EPA 6010D	3-10-21	3-10-21	
Barium	88	3.0	EPA 6010D	3-10-21	3-10-21	
Cadmium	ND	0.60	EPA 6010D	3-10-21	3-10-21	
Chromium	50	0.60	EPA 6010D	3-10-21	3-10-21	
Lead	45	6.0	EPA 6010D	3-10-21	3-10-21	
Mercury	ND	0.12	EPA 7471B	3-11-21	3-11-21	
Selenium	ND	12	EPA 6010D	3-10-21	3-10-21	
Silver	ND	1.2	EPA 6010D	3-10-21	3-10-21	

Client ID:	UST-A-S					
Laboratory ID:	03-113-05					
Arsenic	ND	12	EPA 6010D	3-10-21	3-10-21	
Barium	110	3.0	EPA 6010D	3-10-21	3-10-21	
Cadmium	ND	0.59	EPA 6010D	3-10-21	3-10-21	
Chromium	44	0.59	EPA 6010D	3-10-21	3-10-21	
Lead	12	5.9	EPA 6010D	3-10-21	3-10-21	
Mercury	ND	0.12	EPA 7471B	3-11-21	3-11-21	
Selenium	ND	12	EPA 6010D	3-10-21	3-10-21	
Silver	ND	1.2	EPA 6010D	3-10-21	3-10-21	



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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-N					
Laboratory ID:	03-113-06					
Arsenic	ND	13	EPA 6010D	3-10-21	3-10-21	
Barium	120	3.1	EPA 6010D	3-10-21	3-10-21	
Cadmium	ND	0.63	EPA 6010D	3-10-21	3-10-21	
Chromium	38	0.63	EPA 6010D	3-10-21	3-10-21	
Lead	15	6.3	EPA 6010D	3-10-21	3-10-21	
Mercury	0.22	0.13	EPA 7471B	3-11-21	3-11-21	
Selenium	ND	13	EPA 6010D	3-10-21	3-10-21	
Silver	ND	1.3	EPA 6010D	3-10-21	3-10-21	

Client ID:	UST-A-W					
Laboratory ID:	03-113-07					
Arsenic	ND	12	EPA 6010D	3-10-21	3-10-21	
Barium	330	3.0	EPA 6010D	3-10-21	3-10-21	
Cadmium	ND	0.61	EPA 6010D	3-10-21	3-10-21	
Chromium	36	0.61	EPA 6010D	3-10-21	3-10-21	
Lead	180	6.1	EPA 6010D	3-10-21	3-10-21	
Mercury	0.26	0.12	EPA 7471B	3-11-21	3-11-21	
Selenium	ND	12	EPA 6010D	3-10-21	3-10-21	
Silver	ND	1.2	EPA 6010D	3-10-21	3-10-21	



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**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:	MB0310SM3					
Arsenic	ND	10	EPA 6010D	3-10-21	3-10-21	
Barium	ND	2.5	EPA 6010D	3-10-21	3-10-21	
Cadmium	ND	0.50	EPA 6010D	3-10-21	3-10-21	
Chromium	ND	0.50	EPA 6010D	3-10-21	3-10-21	
Lead	ND	5.0	EPA 6010D	3-10-21	3-10-21	
Selenium	ND	10	EPA 6010D	3-10-21	3-10-21	
Silver	ND	1.0	EPA 6010D	3-10-21	3-10-21	

Laboratory ID:	MB0311S2					
Mercury	ND	0.10	EPA 7471B	3-11-21	3-11-21	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-095-02							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	58.8	63.2	NA	NA	NA	7	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	33.0	36.6	NA	NA	NA	10	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	03-113-06								
Mercury	0.174	0.131	NA	NA	NA	NA	28	20	K

MATRIX SPIKES

Laboratory ID:	03-095-02									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	86.8	87.8	100	100	ND	87	88	75-125	1	20
Barium	155	153	100	100	58.8	96	95	75-125	1	20
Cadmium	45.6	46.0	50.0	50.0	ND	91	92	75-125	1	20
Chromium	123	124	100	100	33.0	90	91	75-125	1	20
Lead	215	215	250	250	ND	86	86	75-125	0	20
Selenium	89.0	89.6	100	100	ND	89	90	75-125	1	20
Silver	19.9	20.1	25.0	25.0	ND	79	80	75-125	1	20

Laboratory ID:	03-113-06										
Mercury	0.867	0.741	0.500	0.500	0.174	139	113	80-120	16	20	V



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: March 16, 2021
Samples Submitted: March 10, 2021
Laboratory Reference: 2103-113
Project: 397-035

TCLP METALS
EPA 1311/6010D

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-bottom					
Laboratory ID:	03-113-03					
Chromium	ND	0.020	EPA 6010D	3-16-21	3-16-21	
Lead	25	0.20	EPA 6010D	3-16-21	3-16-21	



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**TCLP METALS
 EPA 1311/6010D
 QUALITY CONTROL**

Matrix: TCLP Extract
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0316TM1					
Chromium	ND	0.020	EPA 6010D	3-16-21	3-16-21	
Lead	ND	0.20	EPA 6010D	3-16-21	3-16-21	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	03-113-03									
	ORIG	DUP								
Chromium	ND	ND	NA	NA		NA	NA	NA	20	
Lead	25.1	25.0	NA	NA		NA	NA	1	20	

MATRIX SPIKES

Laboratory ID:	03-113-03									
	MS	MSD	MS	MSD		MS	MSD			
Chromium	3.54	3.57	4.00	4.00	ND	89	89	75-125	1	20
Lead	32.8	32.9	10.0	10.0	25.1	76	77	75-125	0	20



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% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
UST-L-SP2	03-113-01	18	3-10-21
UST-L-SP3	03-113-02	15	3-10-21
UST-A-bottom	03-113-03	41	3-10-21
UST-A-E	03-113-04	16	3-10-21
UST-A-S	03-113-05	16	3-10-21
UST-A-N	03-113-06	20	3-10-21
UST-A-W	03-113-07	18	3-10-21





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





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

March 12, 2021

Eric Buer
Farallon Consulting
1809 7th Avenue, Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2103-131

Dear Eric:

Enclosed are the analytical results and associated quality control data for samples submitted on March 11, 2021.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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: March 12, 2021
Samples Submitted: March 11, 2021
Laboratory Reference: 2103-131
Project: 397-035

Case Narrative

Samples were collected on March 10 and 11, 2021 and received by the laboratory on March 11, 2021. 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: March 12, 2021
 Samples Submitted: March 11, 2021
 Laboratory Reference: 2103-131
 Project: 397-035

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-bottom					
Laboratory ID:	03-131-01					
Gasoline	ND	6.8	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	58-129				
Client ID:	Hoist-5-E					
Laboratory ID:	03-131-02					
Gasoline	ND	6.7	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	58-129				
Client ID:	Hoist-5-W					
Laboratory ID:	03-131-03					
Gasoline	ND	6.8	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	86	58-129				
Client ID:	UST-A-SP1					
Laboratory ID:	03-131-04					
Gasoline	ND	7.4	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	58-129				
Client ID:	UST-A-SP2					
Laboratory ID:	03-131-05					
Gasoline	ND	8.6	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	87	58-129				
Client ID:	UST-A-SP3					
Laboratory ID:	03-131-06					
Gasoline	ND	6.7	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	58-129				
Client ID:	Hoist-2-bottom					
Laboratory ID:	03-131-07					
Gasoline	ND	6.7	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	58-129				



Date of Report: March 12, 2021
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**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-N					
Laboratory ID:	03-131-08					
Gasoline	ND	7.3	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	58-129				
Client ID:	Hoist-2-W					
Laboratory ID:	03-131-09					
Gasoline	ND	6.2	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	58-129				
Client ID:	Hoist-S2-S					
Laboratory ID:	03-131-10					
Gasoline	ND	6.6	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	58-129				
Client ID:	Hoist-4-bottom					
Laboratory ID:	03-131-11					
Gasoline	ND	7.0	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	58-129				
Client ID:	Hoist-4-E					
Laboratory ID:	03-131-12					
Gasoline	ND	7.0	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	58-129				



Date of Report: March 12, 2021
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 Project: 397-035

**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:	MB0311S1					
Gasoline	ND	5.0	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
Fluorobenzene	90	58-129				
Laboratory ID:	MB0311S2					
Gasoline	ND	5.0	NWTPH-Gx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
Fluorobenzene	92	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-131-06							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
Fluorobenzene				92	92	58-129		
Laboratory ID:	03-131-07							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
Fluorobenzene				95	93	58-129		



Date of Report: March 12, 2021
 Samples Submitted: March 11, 2021
 Laboratory Reference: 2103-131
 Project: 397-035

**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:	Hoist-5-bottom					
Laboratory ID:	03-131-01					
Diesel Range Organics	ND	31	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil Range Organics	ND	61	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				

Client ID:	Hoist-5-E					
Laboratory ID:	03-131-02					
Diesel Range Organics	58	31	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil	130	63	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Client ID:	Hoist-5-W					
Laboratory ID:	03-131-03					
Diesel Range Organics	ND	29	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil Range Organics	ND	59	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Client ID:	UST-A-SP1					
Laboratory ID:	03-131-04					
Diesel Range Organics	850	160	NWTPH-Dx	3-11-21	3-11-21	N
Lube Oil	7300	310	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Client ID:	UST-A-SP2					
Laboratory ID:	03-131-05					
Diesel Range Organics	100	32	NWTPH-Dx	3-11-21	3-11-21	N
Lube Oil	780	65	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	84	50-150				

Client ID:	UST-A-SP3					
Laboratory ID:	03-131-06					
Diesel Range Organics	ND	30	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil	100	60	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	78	50-150				



Date of Report: March 12, 2021
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 Project: 397-035

**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:	Hoist-2-bottom					
Laboratory ID:	03-131-07					
Diesel Range Organics	110	30	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil	280	59	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	77	50-150				

Client ID:	Hoist-2-N					
Laboratory ID:	03-131-08					
Diesel Range Organics	ND	30	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil	150	61	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Client ID:	Hoist-2-W					
Laboratory ID:	03-131-09					
Diesel Range Organics	ND	31	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil Range Organics	ND	61	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	76	50-150				

Client ID:	Hoist-S2-S					
Laboratory ID:	03-131-10					
Diesel Range Organics	ND	31	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil	170	62	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	73	50-150				

Client ID:	Hoist-4-bottom					
Laboratory ID:	03-131-11					
Diesel Range Organics	ND	30	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil Range Organics	ND	60	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	80	50-150				

Client ID:	Hoist-4-E					
Laboratory ID:	03-131-12					
Diesel Range Organics	ND	30	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil Range Organics	ND	60	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	80	50-150				



Date of Report: March 12, 2021
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 Project: 397-035

**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:	MB0311S1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-11-21	3-11-21	
Lube Oil Range Organics	ND	50	NWTPH-Dx	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	99	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-123-02							
	ORIG	DUP						
Diesel Range Organics	37.1	28.8	NA	NA	NA	NA	25	NA
Lube Oil Range Organics	179	123	NA	NA	NA	NA	37	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				82	75	50-150		
Laboratory ID:	SB0311S1							
	ORIG	DUP						
Diesel Fuel #2	82.1	75.1	NA	NA	NA	NA	9	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				100	93	50-150		



Date of Report: March 12, 2021
 Samples Submitted: March 11, 2021
 Laboratory Reference: 2103-131
 Project: 397-035

VOLATILE ORGANICS EPA 8260D
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-bottom					
Laboratory ID:	03-131-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0084	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0057	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0057	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0057	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0076	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0057	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0057	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-bottom					
Laboratory ID:	03-131-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.0018	0.0011	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0023	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0057	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0057	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0057	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
<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>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>71-130</i>				



Date of Report: March 12, 2021
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VOLATILE ORGANICS EPA 8260D
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-E					
Laboratory ID:	03-131-02					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0099	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0017	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0067	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0067	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0067	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0089	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0067	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0067	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-E					
Laboratory ID:	03-131-02					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.0091	0.0013	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0027	EPA 8260D	3-12-21	3-12-21	
o-Xylene	0.0036	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0067	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0067	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0067	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-W					
Laboratory ID:	03-131-03					
Dichlorodifluoromethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.011	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0020	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0077	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0077	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0077	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.010	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0077	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0077	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-W					
Laboratory ID:	03-131-03					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.011	0.0015	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0031	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0077	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0077	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0077	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP1					
Laboratory ID:	03-131-04					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0094	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0016	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0063	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0063	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0063	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0085	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0063	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP1					
Laboratory ID:	03-131-04					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.015	0.0013	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	0.0055	0.0025	EPA 8260D	3-12-21	3-12-21	
o-Xylene	0.0042	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0063	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.074	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.074	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.074	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.074	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.074	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.074	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.074	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.074	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.37	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.074	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.37	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.074	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>122</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>89</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>82</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP2					
Laboratory ID:	03-131-05					
Dichlorodifluoromethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.010	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0018	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0068	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0068	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0068	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0091	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0068	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0068	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP2					
Laboratory ID:	03-131-05					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.0065	0.0014	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0027	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0068	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0068	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0068	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP3					
Laboratory ID:	03-131-06					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0077	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0052	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0052	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0052	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0069	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0052	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0052	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP3					
Laboratory ID:	03-131-06					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.0012	0.0010	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0021	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0052	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0052	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-bottom					
Laboratory ID:	03-131-07					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0094	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0017	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0064	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0064	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0064	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0085	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0064	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0064	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-bottom					
Laboratory ID:	03-131-07					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.017	0.0013	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0026	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0064	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0064	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0064	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-N					
Laboratory ID:	03-131-08					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0087	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0079	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-N					
Laboratory ID:	03-131-08					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.011	0.0012	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0024	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-W					
Laboratory ID:	03-131-09					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0074	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0067	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-W					
Laboratory ID:	03-131-09					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-S2-S					
Laboratory ID:	03-131-10					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0079	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0014	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0053	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0053	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0053	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0071	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0053	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0053	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-S2-S					
Laboratory ID:	03-131-10					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.010	0.0011	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0021	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0053	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-12-21	3-12-21	
<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>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-4-bottom					
Laboratory ID:	03-131-11					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0076	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0051	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0051	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0051	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0069	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0051	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-4-bottom					
Laboratory ID:	03-131-11					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.0024	0.0010	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0051	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0051	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-4-E					
Laboratory ID:	03-131-12					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0087	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0015	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0078	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-4-E					
Laboratory ID:	03-131-12					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.0017	0.0012	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0023	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0059	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>71-130</i>				



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QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0312S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	0.0074	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	0.0067	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Benzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Toluene	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	



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QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0312S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-12-21	3-12-21	
o-Xylene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>104</i>	<i>71-130</i>				



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 Project: 397-035

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0312S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0464	0.0440	0.0500	0.0500	93	88	55-126	5	17	
Benzene	0.0433	0.0418	0.0500	0.0500	87	84	65-121	4	16	
Trichloroethene	0.0486	0.0463	0.0500	0.0500	97	93	74-126	5	16	
Toluene	0.0440	0.0418	0.0500	0.0500	88	84	71-121	5	16	
Chlorobenzene	0.0453	0.0449	0.0500	0.0500	91	90	72-123	1	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					99	97	74-131			
<i>Toluene-d8</i>					97	96	78-128			
<i>4-Bromofluorobenzene</i>					103	102	71-130			



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-bottom					
Laboratory ID:	03-131-01					
Aroclor 1016	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	92	46-125				
Client ID:	Hoist-5-E					
Laboratory ID:	03-131-02					
Aroclor 1016	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.063	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	83	46-125				
Client ID:	Hoist-5-W					
Laboratory ID:	03-131-03					
Aroclor 1016	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.059	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	80	46-125				



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP1					
Laboratory ID:	03-131-04					
Aroclor 1016	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.063	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.063	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	75	46-125				
Client ID:	UST-A-SP2					
Laboratory ID:	03-131-05					
Aroclor 1016	ND	0.065	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.065	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.065	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.065	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.065	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.065	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.065	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	83	46-125				
Client ID:	UST-A-SP3					
Laboratory ID:	03-131-06					
Aroclor 1016	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.060	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	81	46-125				



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-bottom					
Laboratory ID:	03-131-07					
Aroclor 1016	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.059	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	80	46-125				
Client ID:	Hoist-2-N					
Laboratory ID:	03-131-08					
Aroclor 1016	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	82	46-125				
Client ID:	Hoist-2-W					
Laboratory ID:	03-131-09					
Aroclor 1016	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	75	46-125				



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-S2-S					
Laboratory ID:	03-131-10					
Aroclor 1016	ND	0.062	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.062	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.062	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.062	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.062	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.062	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.062	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	77	46-125				
Client ID:	Hoist-4-bottom					
Laboratory ID:	03-131-11					
Aroclor 1016	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.060	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.060	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	79	46-125				
Client ID:	Hoist-4-E					
Laboratory ID:	03-131-12					
Aroclor 1016	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.059	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.059	EPA 8082A	3-11-21	3-11-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	73	46-125				



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**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0311S1					
Aroclor 1016	ND	0.050	EPA 8082A	3-11-21	3-11-21	
Aroclor 1221	ND	0.050	EPA 8082A	3-11-21	3-11-21	
Aroclor 1232	ND	0.050	EPA 8082A	3-11-21	3-11-21	
Aroclor 1242	ND	0.050	EPA 8082A	3-11-21	3-11-21	
Aroclor 1248	ND	0.050	EPA 8082A	3-11-21	3-11-21	
Aroclor 1254	ND	0.050	EPA 8082A	3-11-21	3-11-21	
Aroclor 1260	ND	0.050	EPA 8082A	3-11-21	3-11-21	
Surrogate:	<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
SPIKE BLANKS											
Laboratory ID:	SB0311S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	0.503	0.491	0.500	0.500	N/A	101	98	50-134	2	18	
Surrogate:											
DCB						95	90	46-125			



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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-bottom					
Laboratory ID:	03-131-01					
Arsenic	ND	12	EPA 6010D	3-12-21	3-12-21	
Barium	280	3.1	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.61	EPA 6010D	3-12-21	3-12-21	
Chromium	35	0.61	EPA 6010D	3-12-21	3-12-21	
Lead	110	6.1	EPA 6010D	3-12-21	3-12-21	
Mercury	ND	0.31	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	12	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.2	EPA 6010D	3-12-21	3-12-21	

Client ID:	Hoist-5-E					
Laboratory ID:	03-131-02					
Arsenic	ND	13	EPA 6010D	3-12-21	3-12-21	
Barium	200	3.1	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.63	EPA 6010D	3-12-21	3-12-21	
Chromium	37	0.63	EPA 6010D	3-12-21	3-12-21	
Lead	100	6.3	EPA 6010D	3-12-21	3-12-21	
Mercury	1.1	0.31	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	13	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.3	EPA 6010D	3-12-21	3-12-21	

Client ID:	Hoist-5-W					
Laboratory ID:	03-131-03					
Arsenic	ND	12	EPA 6010D	3-12-21	3-12-21	
Barium	140	2.9	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.59	EPA 6010D	3-12-21	3-12-21	
Chromium	29	0.59	EPA 6010D	3-12-21	3-12-21	
Lead	98	5.9	EPA 6010D	3-12-21	3-12-21	
Mercury	ND	0.29	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	12	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.2	EPA 6010D	3-12-21	3-12-21	



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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP1					
Laboratory ID:	03-131-04					
Arsenic	ND	13	EPA 6010D	3-12-21	3-12-21	
Barium	410	3.1	EPA 6010D	3-12-21	3-12-21	
Cadmium	0.64	0.63	EPA 6010D	3-12-21	3-12-21	
Chromium	44	0.63	EPA 6010D	3-12-21	3-12-21	
Lead	550	6.3	EPA 6010D	3-12-21	3-12-21	
Mercury	0.97	0.31	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	13	EPA 6010D	3-12-21	3-12-21	
Silver	1.8	1.3	EPA 6010D	3-12-21	3-12-21	

Client ID:	UST-A-SP2					
Laboratory ID:	03-131-05					
Arsenic	ND	13	EPA 6010D	3-12-21	3-12-21	
Barium	530	3.2	EPA 6010D	3-12-21	3-12-21	
Cadmium	2.0	0.65	EPA 6010D	3-12-21	3-12-21	
Chromium	400	3.2	EPA 6010D	3-12-21	3-12-21	
Lead	1200	6.5	EPA 6010D	3-12-21	3-12-21	
Mercury	1.5	0.65	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	13	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.3	EPA 6010D	3-12-21	3-12-21	

Client ID:	UST-A-SP3					
Laboratory ID:	03-131-06					
Arsenic	15	12	EPA 6010D	3-12-21	3-12-21	
Barium	170	3.0	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.60	EPA 6010D	3-12-21	3-12-21	
Chromium	31	0.60	EPA 6010D	3-12-21	3-12-21	
Lead	86	6.0	EPA 6010D	3-12-21	3-12-21	
Mercury	0.40	0.30	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	12	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.2	EPA 6010D	3-12-21	3-12-21	



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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-bottom					
Laboratory ID:	03-131-07					
Arsenic	ND	12	EPA 6010D	3-12-21	3-12-21	
Barium	150	3.0	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.59	EPA 6010D	3-12-21	3-12-21	
Chromium	35	0.59	EPA 6010D	3-12-21	3-12-21	
Lead	90	5.9	EPA 6010D	3-12-21	3-12-21	
Mercury	ND	0.30	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	12	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.2	EPA 6010D	3-12-21	3-12-21	

Client ID:	Hoist-2-N					
Laboratory ID:	03-131-08					
Arsenic	ND	12	EPA 6010D	3-12-21	3-12-21	
Barium	140	3.0	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.61	EPA 6010D	3-12-21	3-12-21	
Chromium	30	0.61	EPA 6010D	3-12-21	3-12-21	
Lead	57	6.1	EPA 6010D	3-12-21	3-12-21	
Mercury	ND	0.30	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	12	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.2	EPA 6010D	3-12-21	3-12-21	



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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-W					
Laboratory ID:	03-131-09					
Arsenic	ND	12	EPA 6010D	3-12-21	3-12-21	
Barium	140	3.1	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.61	EPA 6010D	3-12-21	3-12-21	
Chromium	48	0.61	EPA 6010D	3-12-21	3-12-21	
Lead	14	6.1	EPA 6010D	3-12-21	3-12-21	
Mercury	ND	0.31	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	12	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.2	EPA 6010D	3-12-21	3-12-21	

Client ID:	Hoist-S2-S					
Laboratory ID:	03-131-10					
Arsenic	ND	12	EPA 6010D	3-12-21	3-12-21	
Barium	150	3.1	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.62	EPA 6010D	3-12-21	3-12-21	
Chromium	41	0.62	EPA 6010D	3-12-21	3-12-21	
Lead	140	6.2	EPA 6010D	3-12-21	3-12-21	
Mercury	ND	0.31	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	12	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.2	EPA 6010D	3-12-21	3-12-21	

Client ID:	Hoist-4-bottom					
Laboratory ID:	03-131-11					
Arsenic	ND	12	EPA 6010D	3-12-21	3-12-21	
Barium	87	3.0	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.60	EPA 6010D	3-12-21	3-12-21	
Chromium	40	0.60	EPA 6010D	3-12-21	3-12-21	
Lead	15	6.0	EPA 6010D	3-12-21	3-12-21	
Mercury	ND	0.30	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	12	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.2	EPA 6010D	3-12-21	3-12-21	



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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-4-E					
Laboratory ID:	03-131-12					
Arsenic	ND	12	EPA 6010D	3-12-21	3-12-21	
Barium	57	3.0	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.59	EPA 6010D	3-12-21	3-12-21	
Chromium	23	0.59	EPA 6010D	3-12-21	3-12-21	
Lead	6.6	5.9	EPA 6010D	3-12-21	3-12-21	
Mercury	ND	0.30	EPA 7471B	3-12-21	3-12-21	
Selenium	ND	12	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.2	EPA 6010D	3-12-21	3-12-21	



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**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:	MB0312SM2					
Arsenic	ND	10	EPA 6010D	3-12-21	3-12-21	
Barium	ND	2.5	EPA 6010D	3-12-21	3-12-21	
Cadmium	ND	0.50	EPA 6010D	3-12-21	3-12-21	
Chromium	ND	0.50	EPA 6010D	3-12-21	3-12-21	
Lead	ND	5.0	EPA 6010D	3-12-21	3-12-21	
Selenium	ND	10	EPA 6010D	3-12-21	3-12-21	
Silver	ND	1.0	EPA 6010D	3-12-21	3-12-21	

Laboratory ID:	MB0312S1					
Mercury	ND	0.25	EPA 7471B	3-12-21	3-12-21	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-131-12							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	47.8	43.7	NA	NA	NA	9	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	19.4	21.4	NA	NA	NA	10	20	
Lead	5.55	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	03-131-12							
Mercury	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	03-131-12									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	94.8	93.4	100	100	ND	95	93	75-125	1	20
Barium	140	140	100	100	47.8	93	92	75-125	0	20
Cadmium	47.4	46.9	50.0	50.0	ND	95	94	75-125	1	20
Chromium	114	114	100	100	19.4	94	95	75-125	0	20
Lead	232	229	250	250	5.55	91	89	75-125	1	20
Selenium	89.7	87.8	100	100	ND	90	88	75-125	2	20
Silver	20.5	20.4	25.0	25.0	ND	82	81	75-125	1	20

Laboratory ID:	03-131-12									
Mercury	0.607	0.604	0.500	0.500	0.0274	116	115	80-120	0	20



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.

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 Samples Submitted: March 11, 2021
 Laboratory Reference: 2103-131
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-bottom					
Laboratory ID:	03-131-01					
Benzo[a]anthracene	ND	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	0.012	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	0.011	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	ND	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>88</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>101</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>106</i>	<i>49 - 121</i>				



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 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-E					
Laboratory ID:	03-131-02					
Benzo[a]anthracene	0.024	0.0084	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	0.024	0.0084	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	0.031	0.0084	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	0.0085	0.0084	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	0.025	0.0084	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	0.019	0.0084	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	ND	0.0084	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>90</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>101</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>107</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-5-W					
Laboratory ID:	03-131-03					
Benzo[a]anthracene	0.089	0.0078	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	0.076	0.0078	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	0.12	0.0078	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	0.033	0.0078	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	0.095	0.0078	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	0.068	0.0078	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	0.010	0.0078	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>94</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>104</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>109</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP1					
Laboratory ID:	03-131-04					
Benzo[a]anthracene	0.094	0.084	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	ND	0.084	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	0.14	0.084	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	ND	0.084	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	0.13	0.084	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	0.19	0.084	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	ND	0.084	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>86</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>87</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP2					
Laboratory ID:	03-131-05					
Benzo[a]anthracene	0.075	0.0086	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	0.092	0.0086	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	0.13	0.0086	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	0.034	0.0086	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	0.088	0.0086	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	0.13	0.0086	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	0.026	0.0086	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>89</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>94</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-SP3					
Laboratory ID:	03-131-06					
Benzo[a]anthracene	0.024	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	0.029	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	0.034	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	0.012	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	0.027	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	0.024	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>72</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>95</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>99</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-bottom					
Laboratory ID:	03-131-07					
Benzo[a]anthracene	0.079	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	0.077	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	0.087	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	0.025	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	0.076	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	0.051	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	0.0080	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>79</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>112</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>109</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-N					
Laboratory ID:	03-131-08					
Benzo[a]anthracene	0.026	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	0.032	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	0.035	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	0.012	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	0.030	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	0.022	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>83</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>97</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>103</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-2-W					
Laboratory ID:	03-131-09					
Benzo[a]anthracene	0.015	0.0082	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	0.016	0.0082	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	0.016	0.0082	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	ND	0.0082	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	0.014	0.0082	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0082	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	ND	0.0082	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>92</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>100</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>101</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-S2-S					
Laboratory ID:	03-131-10					
Benzo[a]anthracene	0.056	0.0083	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	0.058	0.0083	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	0.080	0.0083	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	0.024	0.0083	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	0.063	0.0083	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	0.051	0.0083	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	0.0089	0.0083	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>87</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>99</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>102</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-4-bottom					
Laboratory ID:	03-131-11					
Benzo[a]anthracene	ND	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	ND	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	ND	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	ND	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	ND	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>95</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>98</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>99</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-4-E					
Laboratory ID:	03-131-12					
Benzo[a]anthracene	ND	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	ND	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	ND	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	ND	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>84</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>94</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>100</i>	<i>49 - 121</i>				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0311S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	3-11-21	3-12-21	
Chrysene	ND	0.0067	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[j,k]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-11-21	3-12-21	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	3-11-21	3-12-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	3-11-21	3-12-21	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	3-11-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>103</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>103</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>115</i>	<i>49 - 121</i>				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0311S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	0.0845	0.0813	0.0833	0.0833	101	98	72 - 129	4	15	
Chrysene	0.0888	0.0897	0.0833	0.0833	107	108	66 - 123	1	15	
Benzo[b]fluoranthene	0.0840	0.0830	0.0833	0.0833	101	100	68 - 128	1	15	
Benzo(j,k)fluoranthene	0.0902	0.0895	0.0833	0.0833	108	107	63 - 128	1	16	
Benzo[a]pyrene	0.0846	0.0837	0.0833	0.0833	102	100	66 - 130	1	15	
Indeno(1,2,3-c,d)pyrene	0.0823	0.0820	0.0833	0.0833	99	98	63 - 135	0	15	
Dibenz[a,h]anthracene	0.0835	0.0835	0.0833	0.0833	100	100	65 - 130	0	15	
<i>Surrogate:</i>										
2-Fluorobiphenyl					102	104	46 - 113			
Pyrene-d10					107	108	45 - 114			
Terphenyl-d14					112	110	49 - 121			



Date of Report: March 12, 2021
 Samples Submitted: March 11, 2021
 Laboratory Reference: 2103-131
 Project: 397-035

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
Hoist-5-bottom	03-131-01	18	3-11-21
Hoist-5-E	03-131-02	20	3-11-21
Hoist-5-W	03-131-03	15	3-11-21
UST-A-SP1	03-131-04	20	3-11-21
UST-A-SP2	03-131-05	23	3-11-21
UST-A-SP3	03-131-06	16	3-11-21
Hoist-2-bottom	03-131-07	16	3-11-21
Hoist-2-N	03-131-08	17	3-11-21
Hoist-2-W	03-131-09	19	3-11-21
Hoist-S2-S	03-131-10	19	3-11-21
Hoist-4-bottom	03-131-11	17	3-11-21
Hoist-4-E	03-131-12	16	3-11-21





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



Chain of Custody

Turnaround Request (in working days) (Check One) <input type="checkbox"/> Same Day <input checked="" type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> Standard (7 Days) <input type="checkbox"/> _____ (other)					Laboratory Number: 03-131																				
Company: <u>Farallon</u> Project Number: <u>397-035</u> Project Name: <u>Block 79</u> Project Manager: <u>Eric Buer</u> Sampled by: <u>Courtney A van Stolk</u>					Number of Containers	NMTPH-HCID	NMTPH-Gx/BTEX <u>8260</u>	NMTPH-Gx	NMTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260D	Halogenated Volatiles 8260D	EDB EPA 8011 (Waters Only)	Semivolatiles 8270E/SIM (with low-level PAHs)	PAHs 8270E/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270E/SIM	Chlorinated Acid Herbicides 8151A	Total PCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	<u>CPAHs 8270</u>	% Moisture	
Lab ID	Sample Identification					Date Sampled	Time Sampled	Matrix																	
1	Hoist-5-bottom					3-10	1508	soil	5	X	X	X			X			X					X		X
2	Hoist-5-E					↓	1510		↓	X	X	X			X			X					X		X
3	Hoist-5-W					↓	1515		↓	X	X	X			X			X					X		X
4	UST-A-SP1					3-11	0828		5	X	X	X			X			X					X		X
5	UST-A-SP2						0835		↓	X	X	X			X			X					X		X
6	UST-A-SP3						0847		↓	X	X	X			X			X					X		X
7	Hoist-2-bottom						1134		6	X	X	X			X			X					X		X
8	Hoist-2-N						1136		↓	X	X	X			X			X					X		X
9	Hoist-2-W						1138		↓	X	X	X			X			X					X		X
10	Hoist-52-S				↓	1328	↓	↓	X	X	X			X			X					X		X	
Signature		Company			Date	Time	Comments/Special Instructions																		
Relinquished		Farallon			3-11-21	1446																			
Received		Alpha			3-11-21	1446																			
Relinquished		Alpha			3-11-21	15:42																			
Received		OSE			3/11/21	1542																			
Relinquished							Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>																		
Received																									
Reviewed/Date		Reviewed/Date			Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>																				

Chain of Custody

Company: Farallon
Project Number: 397-035
Project Name: Block 79
Project Manager: Eric Buer
Sampled by: Courtney van Stolk

Turnaround Request (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Laboratory Number: **03-131**

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 8260D	Halogenated Volatiles 8260D	EDB EPA 8011 (Waters Only)	Semivolatiles 8270E/SIM (with low-level PAHs)	PAHs 8270E/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270E/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	CPAMS 8270	% Moisture	
11	Hoist-4-bottom	3-11	1416	Soil	6	X	X	X							X				X				X	X	X
12	Hoist-4-E	"	1418	"	"	X	X	X							X				X				X	X	X
<i>[Handwritten signature and scribbles across the table]</i>																									

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	Farallon	3-11-21	1446	
<i>[Signature]</i>	Alpha	3-11-21	1446	
<i>[Signature]</i>	Alpha	3-11-21	15:42	
<i>[Signature]</i>	OSE	3/11/21	1542	
				Data Package: Standard <input 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 type="checkbox"/>



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

March 16, 2021

Eric Buer
Farallon Consulting
1809 7th Avenue, Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2103-145

Dear Eric:

Enclosed are the analytical results and associated quality control data for samples submitted on March 12, 2021.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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: March 16, 2021
Samples Submitted: March 12, 2021
Laboratory Reference: 2103-145
Project: 397-035

Case Narrative

Samples were collected on March 12, 2021 and received by the laboratory on March 12, 2021. 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

The duplicate RPD for Barium is outside control limits due to sample in-homogeneity. The sample was re-extracted and re-analyzed with similar results.

The Matrix Spike/ Matrix Spike Duplicate recoveries for Barium are outside control limits due to matrix in-homogeneity. The samples were re-extracted and re-analyzed with similar results. The Spike Blank recovery was 98%.

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



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**HYDROCARBON IDENTIFICATION
 NWTPH-HCID**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Gasoline Range Organics	ND	28	NWTPH-HCID	3-15-21	3-15-21	
Diesel Range Organics	Detected	70	NWTPH-HCID	3-15-21	3-15-21	N
Lube Oil	Detected	140	NWTPH-HCID	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>106</i>	<i>50-150</i>				



Date of Report: March 16, 2021
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**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:	MB0315S2					
Gasoline Range Organics	ND	20	NWTPH-HCID	3-15-21	3-15-21	
Diesel Range Organics	ND	50	NWTPH-HCID	3-15-21	3-15-21	
Lube Oil Range Organics	ND	100	NWTPH-HCID	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	122	50-150				



Date of Report: March 16, 2021
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**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
Gasoline	ND	6.8	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	58-129				
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Gasoline	ND	7.7	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	58-129				
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Gasoline	ND	5.8	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	58-129				
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Gasoline	ND	8.3	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	58-129				
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Gasoline	ND	7.9	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	111	58-129				
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Gasoline	ND	5.4	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	58-129				
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Gasoline	ND	6.6	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	103	58-129				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
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 Project: 397-035

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Gasoline	ND	6.4	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	58-129				
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Gasoline	ND	20	NWTPH-Gx	3-12-21	3-12-21	U1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	58-129				



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 Project: 397-035

**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:	MB0312S1					
Gasoline	ND	5.0	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-110-12							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				95	95	58-129		



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
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 Project: 397-035

**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:	Hoist-3-W					
Laboratory ID:	03-145-01					
Diesel Range Organics	95	31	NWTPH-Dx	3-15-21	3-15-21	N
Lube Oil	250	61	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Diesel Range Organics	280	30	NWTPH-Dx	3-15-21	3-15-21	N
Lube Oil	1500	61	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				

Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Diesel Range Organics	ND	28	NWTPH-Dx	3-15-21	3-15-21	
Lube Oil Range Organics	ND	55	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	79	50-150				

Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Diesel Range Organics	ND	32	NWTPH-Dx	3-15-21	3-15-21	
Lube Oil Range Organics	ND	64	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	84	50-150				

Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Diesel Range Organics	1200	270	NWTPH-Dx	3-15-21	3-16-21	N
Lube Oil	4000	540	NWTPH-Dx	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				

Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Diesel Range Organics	160	31	NWTPH-Dx	3-15-21	3-15-21	N
Lube Oil	490	63	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				



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**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:	Hoist-1-W					
Laboratory ID:	03-145-08					
Diesel Range Organics	150	31	NWTPH-Dx	3-15-21	3-15-21	N
Lube Oil	600	62	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Diesel Range Organics	2600	880	NWTPH-Dx	3-15-21	3-16-21	N
Lube Oil	25000	1800	NWTPH-Dx	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S



Date of Report: March 16, 2021
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**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:	MB0315S1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-15-21	3-15-21	
Lube Oil Range Organics	ND	100	NWTPH-Dx	3-15-21	3-15-21	
<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:	SB0315S1							
	ORIG	DUP						
Diesel Fuel #2	101	99.7	NA	NA	NA	NA	1	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				103	108	50-150		



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VOLATILE ORGANICS EPA 8260D
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0058	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.011	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.010	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.014	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0092	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0015	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0015	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0015	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.011	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Toluene	0.0087	0.0058	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.023	0.0012	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	0.0027	0.0023	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0058	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0058	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
<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>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>71-130</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Dichlorodifluoromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.0098	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0088	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0079	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.0096	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
1,1,2-Trichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.012	0.00099	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-15-21	3-15-21	
o-Xylene	0.0011	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1,1,2,2-Tetrachloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Dichlorodifluoromethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0048	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.0095	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0085	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.011	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0077	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.0093	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0048	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
1,1,2-Trichloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.0040	0.00096	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0019	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0048	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,1,1,2,2-Tetrachloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0048	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0065	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.013	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.016	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.010	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.013	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0065	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.0069	0.0013	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0026	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0065	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0065	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0065	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
<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>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0066	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.013	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.016	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.011	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.013	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0066	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.0074	0.0013	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0026	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0066	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0066	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Dichlorodifluoromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.0098	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0088	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0079	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.0096	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
1,1,2-Trichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.058	0.00099	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.048	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.24	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.24	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>84</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>80</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0054	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.011	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0097	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.013	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0087	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0014	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0014	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0014	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.011	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0054	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.013	0.0011	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0022	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0054	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Dichlorodifluoromethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.0096	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0087	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0078	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.0094	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.010	0.00097	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0019	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Dichlorodifluoromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0085	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.017	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.015	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.020	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.014	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0022	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0022	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0022	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.016	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0085	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
1,1,2-Trichloroethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.0088	0.0017	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	0.0036	0.0034	EPA 8260D	3-15-21	3-15-21	
o-Xylene	0.0021	0.0017	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0085	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.097	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.48	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.48	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>86</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>80</i>	<i>71-130</i>				



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QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0315S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0050	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.0099	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0089	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0080	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.0097	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0050	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0315S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0050	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>71-130</i>				



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QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0316S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0066	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	



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**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0316S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-16-21	3-16-21	
o-Xylene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>71-130</i>				



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**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0315S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0546	0.0464	0.0500	0.0500	109	93	55-126	16	17	
Benzene	0.0473	0.0466	0.0500	0.0500	95	93	65-121	1	16	
Trichloroethene	0.0506	0.0505	0.0500	0.0500	101	101	74-126	0	16	
Toluene	0.0463	0.0463	0.0500	0.0500	93	93	71-121	0	16	
Chlorobenzene	0.0472	0.0484	0.0500	0.0500	94	97	72-123	3	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					89	103	74-131			
<i>Toluene-d8</i>					102	98	78-128			
<i>4-Bromofluorobenzene</i>					102	102	71-130			
Laboratory ID:	SB0316S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0453	0.0446	0.0500	0.0500	91	89	55-126	2	17	
Benzene	0.0478	0.0482	0.0500	0.0500	96	96	65-121	1	16	
Trichloroethene	0.0524	0.0504	0.0500	0.0500	105	101	74-126	4	16	
Toluene	0.0483	0.0475	0.0500	0.0500	97	95	71-121	2	16	
Chlorobenzene	0.0496	0.0489	0.0500	0.0500	99	98	72-123	1	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					97	102	74-131			
<i>Toluene-d8</i>					98	98	78-128			
<i>4-Bromofluorobenzene</i>					107	105	71-130			



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
Aroclor 1016	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	91	46-125				
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Aroclor 1016	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	87	46-125				
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Aroclor 1016	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.055	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	94	46-125				



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Aroclor 1016	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.064	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	79	46-125				
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Aroclor 1016	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.068	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	79	46-125				
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Aroclor 1016	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.054	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	95	46-125				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Aroclor 1016	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.063	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	87	46-125				
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Aroclor 1016	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.062	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	86	46-125				
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Aroclor 1016	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.070	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	77	46-125				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0315S1					
Aroclor 1016	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.050	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	98		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	03-145-01										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.426	0.380	0.500	0.500	ND	85	76	43-125	11	15	
<i>Surrogate:</i>											
DCB						95	96	46-125			



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
Arsenic	ND	12	EPA 6010D	3-15-21	3-15-21	
Barium	120	3.1	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.61	EPA 6010D	3-15-21	3-15-21	
Chromium	37	0.61	EPA 6010D	3-15-21	3-15-21	
Lead	72	6.1	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.31	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.2	EPA 6010D	3-15-21	3-15-21	

Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Arsenic	ND	12	EPA 6010D	3-15-21	3-15-21	
Barium	65	3.0	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.61	EPA 6010D	3-15-21	3-15-21	
Chromium	29	0.61	EPA 6010D	3-15-21	3-15-21	
Lead	59	6.1	EPA 6010D	3-15-21	3-15-21	
Mercury	0.53	0.30	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.2	EPA 6010D	3-15-21	3-15-21	

Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Arsenic	ND	11	EPA 6010D	3-15-21	3-15-21	
Barium	21	2.7	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.55	EPA 6010D	3-15-21	3-15-21	
Chromium	19	0.55	EPA 6010D	3-15-21	3-15-21	
Lead	ND	5.5	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.27	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	11	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.1	EPA 6010D	3-15-21	3-15-21	



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Arsenic	ND	13	EPA 6010D	3-15-21	3-15-21	
Barium	150	3.2	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.64	EPA 6010D	3-15-21	3-15-21	
Chromium	39	0.64	EPA 6010D	3-15-21	3-15-21	
Lead	82	6.4	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.32	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	13	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.3	EPA 6010D	3-15-21	3-15-21	

Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Arsenic	ND	14	EPA 6010D	3-15-21	3-15-21	
Barium	200	3.4	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.68	EPA 6010D	3-15-21	3-15-21	
Chromium	46	0.68	EPA 6010D	3-15-21	3-15-21	
Lead	71	6.8	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.34	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	14	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.4	EPA 6010D	3-15-21	3-15-21	

Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Arsenic	ND	11	EPA 6010D	3-15-21	3-15-21	
Barium	130	2.7	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.54	EPA 6010D	3-15-21	3-15-21	
Chromium	31	0.54	EPA 6010D	3-15-21	3-15-21	
Lead	92	5.4	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.27	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	11	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.1	EPA 6010D	3-15-21	3-15-21	



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Arsenic	ND	13	EPA 6010D	3-15-21	3-15-21	
Barium	140	3.1	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.63	EPA 6010D	3-15-21	3-15-21	
Chromium	36	0.63	EPA 6010D	3-15-21	3-15-21	
Lead	68	6.3	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.31	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	13	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.3	EPA 6010D	3-15-21	3-15-21	

Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Arsenic	ND	12	EPA 6010D	3-15-21	3-15-21	
Barium	200	3.1	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.62	EPA 6010D	3-15-21	3-15-21	
Chromium	35	0.62	EPA 6010D	3-15-21	3-15-21	
Lead	82	6.2	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.31	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.2	EPA 6010D	3-15-21	3-15-21	

Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Arsenic	ND	14	EPA 6010D	3-15-21	3-15-21	
Barium	540	3.5	EPA 6010D	3-15-21	3-15-21	
Cadmium	0.83	0.70	EPA 6010D	3-15-21	3-15-21	
Chromium	27	0.70	EPA 6010D	3-15-21	3-15-21	
Lead	350	7.0	EPA 6010D	3-15-21	3-15-21	
Mercury	2.7	1.8	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	14	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.4	EPA 6010D	3-15-21	3-15-21	



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**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:	MB0315SM1					
Arsenic	ND	10	EPA 6010D	3-15-21	3-15-21	
Barium	ND	2.5	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.50	EPA 6010D	3-15-21	3-15-21	
Chromium	ND	0.50	EPA 6010D	3-15-21	3-15-21	
Lead	ND	5.0	EPA 6010D	3-15-21	3-15-21	
Selenium	ND	10	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.0	EPA 6010D	3-15-21	3-15-21	

Laboratory ID:	MB0316S1					
Mercury	ND	0.25	EPA 7471B	3-16-21	3-16-21	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-145-08							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	162	104	NA	NA	NA	43	20	K
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	28.3	28.8	NA	NA	NA	2	20	
Lead	66.0	62.1	NA	NA	NA	6	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	03-145-01							
Mercury	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	03-145-08									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	84.2	86.3	100	100	ND	84	86	75-125	2	20
Barium	188	218	100	100	162	26	56	75-125	15	20
Cadmium	42.2	42.3	50.0	50.0	ND	84	85	75-125	0	20
Chromium	114	115	100	100	28.3	86	87	75-125	1	20
Lead	254	258	250	250	66.0	75	77	75-125	1	20
Selenium	81.6	83.2	100	100	ND	82	83	75-125	2	20
Silver	21.4	21.5	25.0	25.0	ND	86	86	75-125	0	20

Laboratory ID:	03-145-01									
Mercury	0.578	0.626	0.500	0.500	0.121	91	101	80-120	8	20



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: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
Benzo[a]anthracene	3.6	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	3.0	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	3.8	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	1.2	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	3.3	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	1.9	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	0.34	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>77</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>79</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Benzo[a]anthracene	0.015	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.019	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.021	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	0.017	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	0.015	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>98</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>94</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Benzo[a]anthracene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>84</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>93</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>103</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Benzo[a]anthracene	0.0090	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.010	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.014	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	0.0096	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	0.0092	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>85</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>85</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Benzo[a]anthracene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>95</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>102</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Benzo[a]anthracene	0.0093	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.012	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.012	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	0.0080	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	0.011	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>71</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>100</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>72</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Benzo[a]anthracene	0.013	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.019	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.020	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	0.016	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	0.011	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>86</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>80</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Benzo[a]anthracene	ND	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.0088	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.0086	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	ND	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>75</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>87</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>89</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Benzo[a]anthracene	0.96	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.58	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.68	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	0.24	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	0.62	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	0.38	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>82</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>94</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>84</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0315S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[j,k]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>92</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>99</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>104</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0315S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	0.0816	0.0791	0.0833	0.0833	98	95	72 - 129	3	15	
Chrysene	0.0832	0.0829	0.0833	0.0833	100	100	66 - 123	0	15	
Benzo[b]fluoranthene	0.0857	0.0881	0.0833	0.0833	103	106	68 - 128	3	15	
Benzo(j,k)fluoranthene	0.0764	0.0727	0.0833	0.0833	92	87	63 - 128	5	16	
Benzo[a]pyrene	0.0795	0.0784	0.0833	0.0833	95	94	66 - 130	1	15	
Indeno(1,2,3-c,d)pyrene	0.0749	0.0734	0.0833	0.0833	90	88	63 - 135	2	15	
Dibenz[a,h]anthracene	0.0796	0.0787	0.0833	0.0833	96	94	65 - 130	1	15	
<i>Surrogate:</i>										
2-Fluorobiphenyl					90	95	46 - 113			
Pyrene-d10					100	97	45 - 114			
Terphenyl-d14					104	103	49 - 121			



Date of Report: March 16, 2021
Samples Submitted: March 12, 2021
Laboratory Reference: 2103-145
Project: 397-035

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
Hoist-3-W	03-145-01	18	3-15-21
Hoist-3-N	03-145-02	18	3-15-21
Hoist-3-E	03-145-03	9	3-15-21
Hoist-6-N	03-145-04	22	3-15-21
Hoist-6-W	03-145-05	27	3-15-21
Hoist-1-S	03-145-06	8	3-15-21
Hoist-1-E	03-145-07	20	3-15-21
Hoist-1-W	03-145-08	19	3-15-21
UST-A-15.0	03-145-09	29	3-15-21





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) 983-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in working days)
(Check One)

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

Laboratory Number: **03-145**

Company: **Farallon**
Project Number: **397-035**
Project Name: **Block 79**
Project Manager: **Eric Buer**
Sampled by: **Courtney van Stolk**

Lab ID Sample Identification

1	Hoist-3-W
2	Hoist-3-N
3	Hoist-3-E
4	Hoist-b-N
5	Hoist-b-W
6	Hoist-1-S
7	Hoist-1-E
8	Hoist-1-W
9	UST-A-15.0

Date Sampled Time Sampled Matrix

3-12	6803	soil	b
	1158		
	1200		
	1308		
	1315		
	1319		
	1328		
	1332		
	1447		

Number of Containers

<input checked="" type="checkbox"/>	NWTPH-HCID
<input checked="" type="checkbox"/>	NWTPH-Gx/BTEX 0928
<input type="checkbox"/>	NWTPH-Gx
<input checked="" type="checkbox"/>	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)
<input checked="" type="checkbox"/>	Volatiles 8260D
<input checked="" type="checkbox"/>	Halogenated Volatiles 8260D
<input type="checkbox"/>	EDB EPA 8011 (Waters Only)
<input type="checkbox"/>	Semivolatiles 8270E/SIM (with low-level PAHs)
<input type="checkbox"/>	PAHs 8270E/SIM (low-level)
<input checked="" type="checkbox"/>	PCBs 8082A
<input type="checkbox"/>	Organochlorine Pesticides 8081B
<input type="checkbox"/>	Organophosphorus Pesticides 8270E/SIM
<input type="checkbox"/>	Chlorinated Acid Herbicides 8151A
<input checked="" type="checkbox"/>	Total RCRA Metals
<input type="checkbox"/>	Total MTCA Metals
<input type="checkbox"/>	TCLP Metals
<input type="checkbox"/>	HEM (oil and grease) 1664A
<input checked="" type="checkbox"/>	CPAHs
<input checked="" type="checkbox"/>	% Moisture

Signature

Company

Date

Time

Comments/Special Instructions

Relinquished	Constringer	Farallon	3-12-21	1502	
Received	#17	Speedy	3-12-21	15:03	
Relinquished	#17	Speedy	3-12-21	9:30 AM	
Received	Neel Bishni	OSE	3-12-21	1630	
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



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

March 16, 2021

Eric Buer
Farallon Consulting
1809 7th Avenue, Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2103-145

Dear Eric:

Enclosed are the analytical results and associated quality control data for samples submitted on March 12, 2021.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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: March 16, 2021
Samples Submitted: March 12, 2021
Laboratory Reference: 2103-145
Project: 397-035

Case Narrative

Samples were collected on March 12, 2021 and received by the laboratory on March 12, 2021. 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

The duplicate RPD for Barium is outside control limits due to sample in-homogeneity. The sample was re-extracted and re-analyzed with similar results.

The Matrix Spike/ Matrix Spike Duplicate recoveries for Barium are outside control limits due to matrix in-homogeneity. The samples were re-extracted and re-analyzed with similar results. The Spike Blank recovery was 98%.

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



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**HYDROCARBON IDENTIFICATION
 NWTPH-HCID**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Gasoline Range Organics	ND	28	NWTPH-HCID	3-15-21	3-15-21	
Diesel Range Organics	Detected	70	NWTPH-HCID	3-15-21	3-15-21	N
Lube Oil	Detected	140	NWTPH-HCID	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	106	50-150				



Date of Report: March 16, 2021
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**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:	MB0315S2					
Gasoline Range Organics	ND	20	NWTPH-HCID	3-15-21	3-15-21	
Diesel Range Organics	ND	50	NWTPH-HCID	3-15-21	3-15-21	
Lube Oil Range Organics	ND	100	NWTPH-HCID	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	122	50-150				



Date of Report: March 16, 2021
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 Project: 397-035

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
Gasoline	ND	6.8	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	58-129				
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Gasoline	ND	7.7	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	58-129				
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Gasoline	ND	5.8	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	58-129				
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Gasoline	ND	8.3	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	58-129				
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Gasoline	ND	7.9	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	111	58-129				
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Gasoline	ND	5.4	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	58-129				
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Gasoline	ND	6.6	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	103	58-129				



Date of Report: March 16, 2021
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 Project: 397-035

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Gasoline	ND	6.4	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	58-129				
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Gasoline	ND	20	NWTPH-Gx	3-12-21	3-12-21	U1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	58-129				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
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 Project: 397-035

**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:	MB0312S1					
Gasoline	ND	5.0	NWTPH-Gx	3-12-21	3-12-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-110-12							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				95	95	58-129		



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**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:	Hoist-3-W					
Laboratory ID:	03-145-01					
Diesel Range Organics	95	31	NWTPH-Dx	3-15-21	3-15-21	N
Lube Oil	250	61	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Diesel Range Organics	280	30	NWTPH-Dx	3-15-21	3-15-21	N
Lube Oil	1500	61	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Diesel Range Organics	ND	28	NWTPH-Dx	3-15-21	3-15-21	
Lube Oil Range Organics	ND	55	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	79	50-150				
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Diesel Range Organics	ND	32	NWTPH-Dx	3-15-21	3-15-21	
Lube Oil Range Organics	ND	64	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	84	50-150				
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Diesel Range Organics	ND	34	NWTPH-Dx	3-15-21	3-15-21	
Lube Oil	74	69	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Diesel Range Organics	1200	270	NWTPH-Dx	3-15-21	3-16-21	N
Lube Oil	4000	540	NWTPH-Dx	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S



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 Project: 397-035

**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:	Hoist-1-E					
Laboratory ID:	03-145-07					
Diesel Range Organics	160	31	NWTPH-Dx	3-15-21	3-15-21	N
Lube Oil	490	63	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Diesel Range Organics	150	31	NWTPH-Dx	3-15-21	3-15-21	N
Lube Oil	600	62	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Diesel Range Organics	2600	880	NWTPH-Dx	3-15-21	3-16-21	N
Lube Oil	25000	1800	NWTPH-Dx	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S



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**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:	MB0315S1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-15-21	3-15-21	
Lube Oil Range Organics	ND	100	NWTPH-Dx	3-15-21	3-15-21	
<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:	SB0315S1							
	ORIG	DUP						
Diesel Fuel #2	101	99.7	NA	NA	NA	NA	1	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				103	108	50-150		



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0058	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.011	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.010	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.014	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0092	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0015	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0015	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0015	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.011	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Toluene	0.0087	0.0058	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.023	0.0012	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	0.0027	0.0023	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0058	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0058	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
<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>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Dichlorodifluoromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.0098	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0088	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0079	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.0096	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
1,1,2-Trichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.012	0.00099	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-15-21	3-15-21	
o-Xylene	0.0011	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Dichlorodifluoromethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0048	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.0095	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0085	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.011	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0077	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0012	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.0093	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0048	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
1,1,2-Trichloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.0040	0.00096	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0019	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0048	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,1,1,2,2-Tetrachloroethane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0048	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.00096	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0065	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.013	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.016	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.010	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.013	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0065	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.0069	0.0013	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0026	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0065	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0065	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0065	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
<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>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0066	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.013	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.016	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.011	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.013	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0066	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.0074	0.0013	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0026	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0066	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0066	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Dichlorodifluoromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.0098	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0088	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0079	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.0096	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
1,1,2-Trichloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.058	0.00099	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.00099	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.048	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.24	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.24	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.048	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>84</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>80</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0054	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.011	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0097	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.013	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0087	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0014	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0014	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0014	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.011	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0054	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.013	0.0011	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0022	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0054	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Dichlorodifluoromethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.0096	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0087	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0078	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.0094	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.010	0.00097	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0019	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0049	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Dichlorodifluoromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0085	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.017	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.015	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.020	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.014	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0022	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0022	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0022	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.016	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0085	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
1,1,2-Trichloroethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	0.0088	0.0017	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0017	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	0.0036	0.0034	EPA 8260D	3-15-21	3-15-21	
o-Xylene	0.0021	0.0017	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0085	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.097	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.48	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.48	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.097	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>86</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>80</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0315S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Chloromethane	ND	0.0050	EPA 8260D	3-15-21	3-15-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Bromomethane	ND	0.0099	EPA 8260D	3-15-21	3-15-21	
Chloroethane	ND	0.0089	EPA 8260D	3-15-21	3-15-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Iodomethane	ND	0.012	EPA 8260D	3-15-21	3-15-21	
Methylene Chloride	ND	0.0080	EPA 8260D	3-15-21	3-15-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
Chloroform	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Benzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-15-21	3-15-21	
2-Chloroethyl Vinyl Ether	ND	0.0097	EPA 8260D	3-15-21	3-15-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Toluene	ND	0.0050	EPA 8260D	3-15-21	3-15-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0315S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-15-21	3-15-21	
o-Xylene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Bromoform	ND	0.0050	EPA 8260D	3-15-21	3-15-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-15-21	3-15-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-15-21	3-15-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0316S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0066	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0316S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-16-21	3-16-21	
o-Xylene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>71-130</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0315S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0546	0.0464	0.0500	0.0500	109	93	55-126	16	17	
Benzene	0.0473	0.0466	0.0500	0.0500	95	93	65-121	1	16	
Trichloroethene	0.0506	0.0505	0.0500	0.0500	101	101	74-126	0	16	
Toluene	0.0463	0.0463	0.0500	0.0500	93	93	71-121	0	16	
Chlorobenzene	0.0472	0.0484	0.0500	0.0500	94	97	72-123	3	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					89	103	74-131			
<i>Toluene-d8</i>					102	98	78-128			
<i>4-Bromofluorobenzene</i>					102	102	71-130			
Laboratory ID:	SB0316S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0453	0.0446	0.0500	0.0500	91	89	55-126	2	17	
Benzene	0.0478	0.0482	0.0500	0.0500	96	96	65-121	1	16	
Trichloroethene	0.0524	0.0504	0.0500	0.0500	105	101	74-126	4	16	
Toluene	0.0483	0.0475	0.0500	0.0500	97	95	71-121	2	16	
Chlorobenzene	0.0496	0.0489	0.0500	0.0500	99	98	72-123	1	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					97	102	74-131			
<i>Toluene-d8</i>					98	98	78-128			
<i>4-Bromofluorobenzene</i>					107	105	71-130			



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
Aroclor 1016	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	91	46-125				
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Aroclor 1016	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	87	46-125				
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Aroclor 1016	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.055	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.055	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	94	46-125				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Aroclor 1016	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.064	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	79	46-125				
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Aroclor 1016	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.068	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.068	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	79	46-125				
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Aroclor 1016	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.054	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.054	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	95	46-125				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Aroclor 1016	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.063	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.063	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	87	46-125				
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Aroclor 1016	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.062	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.062	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	86	46-125				
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Aroclor 1016	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.070	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.070	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	77	46-125				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0315S1					
Aroclor 1016	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Surrogate:	Percent Recovery		Control Limits			
DCB	98		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	03-145-01										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.426	0.380	0.500	0.500	ND	85	76	43-125	11	15	
Surrogate:											
DCB						95	96	46-125			



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
Arsenic	ND	12	EPA 6010D	3-15-21	3-15-21	
Barium	120	3.1	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.61	EPA 6010D	3-15-21	3-15-21	
Chromium	37	0.61	EPA 6010D	3-15-21	3-15-21	
Lead	72	6.1	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.31	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.2	EPA 6010D	3-15-21	3-15-21	

Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Arsenic	ND	12	EPA 6010D	3-15-21	3-15-21	
Barium	65	3.0	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.61	EPA 6010D	3-15-21	3-15-21	
Chromium	29	0.61	EPA 6010D	3-15-21	3-15-21	
Lead	59	6.1	EPA 6010D	3-15-21	3-15-21	
Mercury	0.53	0.30	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.2	EPA 6010D	3-15-21	3-15-21	

Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Arsenic	ND	11	EPA 6010D	3-15-21	3-15-21	
Barium	21	2.7	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.55	EPA 6010D	3-15-21	3-15-21	
Chromium	19	0.55	EPA 6010D	3-15-21	3-15-21	
Lead	ND	5.5	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.27	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	11	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.1	EPA 6010D	3-15-21	3-15-21	



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Arsenic	ND	13	EPA 6010D	3-15-21	3-15-21	
Barium	150	3.2	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.64	EPA 6010D	3-15-21	3-15-21	
Chromium	39	0.64	EPA 6010D	3-15-21	3-15-21	
Lead	82	6.4	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.32	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	13	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.3	EPA 6010D	3-15-21	3-15-21	

Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Arsenic	ND	14	EPA 6010D	3-15-21	3-15-21	
Barium	200	3.4	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.68	EPA 6010D	3-15-21	3-15-21	
Chromium	46	0.68	EPA 6010D	3-15-21	3-15-21	
Lead	71	6.8	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.34	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	14	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.4	EPA 6010D	3-15-21	3-15-21	

Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Arsenic	ND	11	EPA 6010D	3-15-21	3-15-21	
Barium	130	2.7	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.54	EPA 6010D	3-15-21	3-15-21	
Chromium	31	0.54	EPA 6010D	3-15-21	3-15-21	
Lead	92	5.4	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.27	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	11	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.1	EPA 6010D	3-15-21	3-15-21	



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Arsenic	ND	13	EPA 6010D	3-15-21	3-15-21	
Barium	140	3.1	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.63	EPA 6010D	3-15-21	3-15-21	
Chromium	36	0.63	EPA 6010D	3-15-21	3-15-21	
Lead	68	6.3	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.31	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	13	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.3	EPA 6010D	3-15-21	3-15-21	

Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Arsenic	ND	12	EPA 6010D	3-15-21	3-15-21	
Barium	200	3.1	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.62	EPA 6010D	3-15-21	3-15-21	
Chromium	35	0.62	EPA 6010D	3-15-21	3-15-21	
Lead	82	6.2	EPA 6010D	3-15-21	3-15-21	
Mercury	ND	0.31	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.2	EPA 6010D	3-15-21	3-15-21	

Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Arsenic	ND	14	EPA 6010D	3-15-21	3-15-21	
Barium	540	3.5	EPA 6010D	3-15-21	3-15-21	
Cadmium	0.83	0.70	EPA 6010D	3-15-21	3-15-21	
Chromium	27	0.70	EPA 6010D	3-15-21	3-15-21	
Lead	350	7.0	EPA 6010D	3-15-21	3-15-21	
Mercury	2.7	1.8	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	14	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.4	EPA 6010D	3-15-21	3-15-21	



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**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:	MB0315SM1					
Arsenic	ND	10	EPA 6010D	3-15-21	3-15-21	
Barium	ND	2.5	EPA 6010D	3-15-21	3-15-21	
Cadmium	ND	0.50	EPA 6010D	3-15-21	3-15-21	
Chromium	ND	0.50	EPA 6010D	3-15-21	3-15-21	
Lead	ND	5.0	EPA 6010D	3-15-21	3-15-21	
Selenium	ND	10	EPA 6010D	3-15-21	3-15-21	
Silver	ND	1.0	EPA 6010D	3-15-21	3-15-21	

Laboratory ID:	MB0316S1					
Mercury	ND	0.25	EPA 7471B	3-16-21	3-16-21	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-145-08							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	162	104	NA	NA	NA	43	20	K
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	28.3	28.8	NA	NA	NA	2	20	
Lead	66.0	62.1	NA	NA	NA	6	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	03-145-01							
Mercury	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	03-145-08									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	84.2	86.3	100	100	ND	84	86	75-125	2	20
Barium	188	218	100	100	162	26	56	75-125	15	20
Cadmium	42.2	42.3	50.0	50.0	ND	84	85	75-125	0	20
Chromium	114	115	100	100	28.3	86	87	75-125	1	20
Lead	254	258	250	250	66.0	75	77	75-125	1	20
Selenium	81.6	83.2	100	100	ND	82	83	75-125	2	20
Silver	21.4	21.5	25.0	25.0	ND	86	86	75-125	0	20

Laboratory ID:	03-145-01									
Mercury	0.578	0.626	0.500	0.500	0.121	91	101	80-120	8	20



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: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-W					
Laboratory ID:	03-145-01					
Benzo[a]anthracene	3.6	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	3.0	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	3.8	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	1.2	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	3.3	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	1.9	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	0.34	0.16	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>77</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>79</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-N					
Laboratory ID:	03-145-02					
Benzo[a]anthracene	0.015	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.019	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.021	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	0.017	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	0.015	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>98</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>94</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
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 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-3-E					
Laboratory ID:	03-145-03					
Benzo[a]anthracene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0073	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>84</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>93</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>103</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-N					
Laboratory ID:	03-145-04					
Benzo[a]anthracene	0.0090	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.010	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.014	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	0.0096	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	0.0092	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0086	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>85</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>85</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-6-W					
Laboratory ID:	03-145-05					
Benzo[a]anthracene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0091	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>95</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>102</i>	<i>49 - 121</i>				



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 Samples Submitted: March 12, 2021
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 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-S					
Laboratory ID:	03-145-06					
Benzo[a]anthracene	0.0093	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.012	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.012	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	0.0080	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	0.011	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0072	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>71</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>100</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>72</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-E					
Laboratory ID:	03-145-07					
Benzo[a]anthracene	0.013	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.019	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.020	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	0.016	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	0.011	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0084	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>86</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>80</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
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 Laboratory Reference: 2103-145
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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-1-W					
Laboratory ID:	03-145-08					
Benzo[a]anthracene	ND	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.0088	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.0086	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	ND	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	ND	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0082	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>75</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>87</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>89</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-15.0					
Laboratory ID:	03-145-09					
Benzo[a]anthracene	0.96	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	0.58	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	0.68	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo(j,k)fluoranthene	0.24	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	0.62	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	0.38	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.094	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>82</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>94</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>84</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0315S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Chrysene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[j,k]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>92</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>99</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>104</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 12, 2021
 Laboratory Reference: 2103-145
 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
							Limits		Limit	
SPIKE BLANKS										
Laboratory ID:	SB0315S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	0.0816	0.0791	0.0833	0.0833	98	95	72 - 129	3	15	
Chrysene	0.0832	0.0829	0.0833	0.0833	100	100	66 - 123	0	15	
Benzo[b]fluoranthene	0.0857	0.0881	0.0833	0.0833	103	106	68 - 128	3	15	
Benzo(j,k)fluoranthene	0.0764	0.0727	0.0833	0.0833	92	87	63 - 128	5	16	
Benzo[a]pyrene	0.0795	0.0784	0.0833	0.0833	95	94	66 - 130	1	15	
Indeno(1,2,3-c,d)pyrene	0.0749	0.0734	0.0833	0.0833	90	88	63 - 135	2	15	
Dibenz[a,h]anthracene	0.0796	0.0787	0.0833	0.0833	96	94	65 - 130	1	15	
<i>Surrogate:</i>										
2-Fluorobiphenyl					90	95	46 - 113			
Pyrene-d10					100	97	45 - 114			
Terphenyl-d14					104	103	49 - 121			



Date of Report: March 16, 2021
Samples Submitted: March 12, 2021
Laboratory Reference: 2103-145
Project: 397-035

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
Hoist-3-W	03-145-01	18	3-15-21
Hoist-3-N	03-145-02	18	3-15-21
Hoist-3-E	03-145-03	9	3-15-21
Hoist-6-N	03-145-04	22	3-15-21
Hoist-6-W	03-145-05	27	3-15-21
Hoist-1-S	03-145-06	8	3-15-21
Hoist-1-E	03-145-07	20	3-15-21
Hoist-1-W	03-145-08	19	3-15-21
UST-A-15.0	03-145-09	29	3-15-21





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





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

March 16, 2021

Eric Buer
Farallon Consulting
1809 7th Avenue, Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2103-151

Dear Eric:

Enclosed are the analytical results and associated quality control data for samples submitted on March 15, 2021.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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: March 16, 2021
Samples Submitted: March 15, 2021
Laboratory Reference: 2103-151
Project: 397-035

Case Narrative

Samples were collected on March 15, 2021 and received by the laboratory on March 15, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

NWTPH Dx Analysis

The duplicate extracts for sample Hoist-S6-8.0 were of distinctly different colors and analysis resulted in a high RPD. The sample was re-extracted and analyzed a third time, the highest values are the ones reported. It was determined that the sample is inhomogeneous.

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



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-E-15.0					
Laboratory ID:	03-151-01					
Gasoline	ND	24	NWTPH-Gx	3-15-21	3-15-21	U1
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	58-129				
Client ID:	UST-A-N-15.0					
Laboratory ID:	03-151-02					
Gasoline	ND	5.9	NWTPH-Gx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	58-129				
Client ID:	UST-A-W-15.0					
Laboratory ID:	03-151-03					
Gasoline	ND	6.4	NWTPH-Gx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	103	58-129				
Client ID:	UST-A-S-15.0					
Laboratory ID:	03-151-04					
Gasoline	ND	5.7	NWTPH-Gx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	103	58-129				
Client ID:	Hoist-S4-8.0					
Laboratory ID:	03-151-05					
Gasoline	ND	5.8	NWTPH-Gx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	58-129				
Client ID:	Hoist-S6-8.0					
Laboratory ID:	03-151-06					
Gasoline	ND	6.3	NWTPH-Gx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	58-129				



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

**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:	MB0315S2					
Gasoline	ND	5.0	NWTPH-Gx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-151-01							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				96	95	58-129		



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

**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:	UST-A-E-15.0					
Laboratory ID:	03-151-01					
Diesel Range Organics	1300	320	NWTPH-Dx	3-15-21	3-16-21	N
Lube Oil	12000	640	NWTPH-Dx	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				

Client ID:	UST-A-N-15.0					
Laboratory ID:	03-151-02					
Diesel Range Organics	3200	29	NWTPH-Dx	3-15-21	3-15-21	
Lube Oil Range Organics	1000	59	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Client ID:	UST-A-W-15.0					
Laboratory ID:	03-151-03					
Diesel Range Organics	ND	30	NWTPH-Dx	3-15-21	3-16-21	
Lube Oil Range Organics	ND	61	NWTPH-Dx	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	77	50-150				

Client ID:	UST-A-S-15.0					
Laboratory ID:	03-151-04					
Diesel Range Organics	680	30	NWTPH-Dx	3-15-21	3-15-21	N
Lube Oil	2200	60	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Client ID:	Hoist-S4-8.0					
Laboratory ID:	03-151-05					
Diesel Range Organics	110	30	NWTPH-Dx	3-15-21	3-15-21	N
Lube Oil	340	59	NWTPH-Dx	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	84	50-150				

Client ID:	Hoist-S6-8.0					
Laboratory ID:	03-151-06					
Diesel Range Organics	7700	760	NWTPH-Dx	3-15-21	3-16-21	
Lube Oil Range Organics	17000	1500	NWTPH-Dx	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				



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**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:	MB0315S1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-15-21	3-15-21	
Lube Oil Range Organics	ND	100	NWTPH-Dx	3-15-21	3-15-21	
<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:	03-151-06							
	ORIG	DUP						
Diesel Range Organics	6340	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range Organics	13600	90.1	NA	NA	NA	NA	197	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				---	70	50-150		S



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 Project: 397-035

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-E-15.0					
Laboratory ID:	03-151-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0054	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0054	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0054	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0054	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0071	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0054	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-E-15.0					
Laboratory ID:	03-151-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0021	EPA 8260D	3-16-21	3-16-21	
o-Xylene	0.0012	0.0011	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0054	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>93</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-N-15.0					
Laboratory ID:	03-151-02					
Dichlorodifluoromethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0043	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0043	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0043	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0043	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0056	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0043	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0043	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-N-15.0					
Laboratory ID:	03-151-02					
1,1,2-Trichloroethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0017	EPA 8260D	3-16-21	3-16-21	
o-Xylene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0043	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,1,1,2,2-Tetrachloroethane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0043	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0043	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.00086	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-W-15.0					
Laboratory ID:	03-151-03					
Dichlorodifluoromethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0065	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-W-15.0					
Laboratory ID:	03-151-03					
1,1,2-Trichloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-16-21	3-16-21	
o-Xylene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-S-15.0					
Laboratory ID:	03-151-04					
Dichlorodifluoromethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0044	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0044	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0044	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0044	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0058	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0044	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0044	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-S-15.0					
Laboratory ID:	03-151-04					
1,1,2-Trichloroethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0018	EPA 8260D	3-16-21	3-16-21	
o-Xylene	ND	0.00088	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0044	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.057	EPA 8260D	3-16-21	3-16-21	
1,1,1,2,2-Tetrachloroethane	ND	0.057	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.057	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.057	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.057	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.057	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.057	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.057	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.29	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.057	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.29	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.057	EPA 8260D	3-16-21	3-16-21	
<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>93</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-S4-8.0					
Laboratory ID:	03-151-05					
Dichlorodifluoromethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0048	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0048	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0048	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0048	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0063	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0048	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0048	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-S4-8.0					
Laboratory ID:	03-151-05					
1,1,2-Trichloroethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	0.0010	0.00096	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0019	EPA 8260D	3-16-21	3-16-21	
o-Xylene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0048	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,1,1,2,2-Tetrachloroethane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0048	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.00096	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-S6-8.0					
Laboratory ID:	03-151-06					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0051	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0051	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0051	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0051	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0068	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0051	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-S6-8.0					
Laboratory ID:	03-151-06					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	0.0021	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0021	EPA 8260D	3-16-21	3-16-21	
o-Xylene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0051	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0051	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0316S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0066	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0316S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-16-21	3-16-21	
o-Xylene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>71-130</i>				



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 Laboratory Reference: 2103-151
 Project: 397-035

**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:	SB0316S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0453	0.0446	0.0500	0.0500	91	89	55-126	2	17	
Benzene	0.0478	0.0482	0.0500	0.0500	96	96	65-121	1	16	
Trichloroethene	0.0524	0.0504	0.0500	0.0500	105	101	74-126	4	16	
Toluene	0.0483	0.0475	0.0500	0.0500	97	95	71-121	2	16	
Chlorobenzene	0.0496	0.0489	0.0500	0.0500	99	98	72-123	1	16	
<i>Surrogate:</i>										
Dibromofluoromethane					97	102	74-131			
Toluene-d8					98	98	78-128			
4-Bromofluorobenzene					107	105	71-130			



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-E-15.0					
Laboratory ID:	03-151-01					
Aroclor 1016	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.064	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.064	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	82	46-125				
Client ID:	UST-A-N-15.0					
Laboratory ID:	03-151-02					
Aroclor 1016	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.059	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	86	46-125				
Client ID:	UST-A-W-15.0					
Laboratory ID:	03-151-03					
Aroclor 1016	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	81	46-125				



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-S-15.0					
Laboratory ID:	03-151-04					
Aroclor 1016	ND	0.060	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.060	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.060	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.060	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.060	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.060	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.060	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	81	46-125				
Client ID:	Hoist-S4-8.0					
Laboratory ID:	03-151-05					
Aroclor 1016	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.059	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.059	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	85	46-125				
Client ID:	Hoist-S6-8.0					
Laboratory ID:	03-151-06					
Aroclor 1016	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	76	46-125				



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0315S1					
Aroclor 1016	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1221	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1232	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1242	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1248	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1254	ND	0.050	EPA 8082A	3-15-21	3-15-21	
Aroclor 1260	ND	0.050	EPA 8082A	3-15-21	3-15-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	98		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	03-145-01										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.426	0.380	0.500	0.500	ND	85	76	43-125	11	15	
<i>Surrogate:</i>											
DCB						95	96	46-125			



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-E-15.0					
Laboratory ID:	03-151-01					
Arsenic	ND	13	EPA 6010D	3-16-21	3-16-21	
Barium	210	3.2	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.64	EPA 6010D	3-16-21	3-16-21	
Chromium	29	0.64	EPA 6010D	3-16-21	3-16-21	
Lead	51	6.4	EPA 6010D	3-16-21	3-16-21	
Mercury	0.87	0.32	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	13	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.3	EPA 6010D	3-16-21	3-16-21	

Client ID:	UST-A-N-15.0					
Laboratory ID:	03-151-02					
Arsenic	ND	12	EPA 6010D	3-16-21	3-16-21	
Barium	88	2.9	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.59	EPA 6010D	3-16-21	3-16-21	
Chromium	25	0.59	EPA 6010D	3-16-21	3-16-21	
Lead	11	5.9	EPA 6010D	3-16-21	3-16-21	
Mercury	ND	0.29	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.2	EPA 6010D	3-16-21	3-16-21	

Client ID:	UST-A-W-15.0					
Laboratory ID:	03-151-03					
Arsenic	ND	12	EPA 6010D	3-16-21	3-16-21	
Barium	67	3.0	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.61	EPA 6010D	3-16-21	3-16-21	
Chromium	30	0.61	EPA 6010D	3-16-21	3-16-21	
Lead	8.1	6.1	EPA 6010D	3-16-21	3-16-21	
Mercury	ND	0.30	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.2	EPA 6010D	3-16-21	3-16-21	



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-S-15.0					
Laboratory ID:	03-151-04					
Arsenic	ND	12	EPA 6010D	3-16-21	3-16-21	
Barium	120	3.0	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.60	EPA 6010D	3-16-21	3-16-21	
Chromium	29	0.60	EPA 6010D	3-16-21	3-16-21	
Lead	46	6.0	EPA 6010D	3-16-21	3-16-21	
Mercury	ND	0.30	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.2	EPA 6010D	3-16-21	3-16-21	

Client ID:	Hoist-S4-8.0					
Laboratory ID:	03-151-05					
Arsenic	ND	12	EPA 6010D	3-16-21	3-16-21	
Barium	180	3.0	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.59	EPA 6010D	3-16-21	3-16-21	
Chromium	56	0.59	EPA 6010D	3-16-21	3-16-21	
Lead	200	5.9	EPA 6010D	3-16-21	3-16-21	
Mercury	0.69	0.30	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.2	EPA 6010D	3-16-21	3-16-21	

Client ID:	Hoist-S6-8.0					
Laboratory ID:	03-151-06					
Arsenic	ND	12	EPA 6010D	3-16-21	3-16-21	
Barium	170	3.1	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.61	EPA 6010D	3-16-21	3-16-21	
Chromium	34	0.61	EPA 6010D	3-16-21	3-16-21	
Lead	84	6.1	EPA 6010D	3-16-21	3-16-21	
Mercury	0.41	0.31	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.2	EPA 6010D	3-16-21	3-16-21	



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

**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:	MB0316SM1					
Arsenic	ND	10	EPA 6010D	3-16-21	3-16-21	
Barium	ND	2.5	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.50	EPA 6010D	3-16-21	3-16-21	
Chromium	ND	0.50	EPA 6010D	3-16-21	3-16-21	
Lead	ND	5.0	EPA 6010D	3-16-21	3-16-21	
Selenium	ND	10	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.0	EPA 6010D	3-16-21	3-16-21	

Laboratory ID:	MB0316S1					
Mercury	ND	0.25	EPA 7471B	3-16-21	3-16-21	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-113-03							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	30.7	32.4	NA	NA	NA	6	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	15.6	15.8	NA	NA	NA	1	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	03-145-01							
Mercury	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	03-136-01									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	88.4	88.3	100	100	ND	88	88	75-125	0	20
Barium	120	120	100	100	30.7	89	89	75-125	0	20
Cadmium	43.3	43.6	50.0	50.0	ND	87	87	75-125	1	20
Chromium	104	103	100	100	15.6	88	87	75-125	1	20
Lead	218	222	250	250	ND	87	89	75-125	2	20
Selenium	88.3	88.3	100	100	ND	88	88	75-125	0	20
Silver	20.6	20.7	25.0	25.0	ND	82	83	75-125	1	20

Laboratory ID:	03-145-01									
Mercury	0.578	0.626	0.500	0.500	0.121	91	101	80-120	8	20



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: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-E-15.0					
Laboratory ID:	03-151-01					
Benzo[a]anthracene	0.13	0.043	EPA 8270E/SIM	3-15-21	3-16-21	
Chrysene	0.15	0.043	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[b]fluoranthene	0.078	0.043	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo(j,k)fluoranthene	ND	0.043	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[a]pyrene	0.057	0.043	EPA 8270E/SIM	3-15-21	3-16-21	
Indeno(1,2,3-c,d)pyrene	ND	0.043	EPA 8270E/SIM	3-15-21	3-16-21	
Dibenz[a,h]anthracene	ND	0.043	EPA 8270E/SIM	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>77</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>74</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-N-15.0					
Laboratory ID:	03-151-02					
Benzo[a]anthracene	0.040	0.0078	EPA 8270E/SIM	3-15-21	3-16-21	
Chrysene	0.041	0.0078	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[b]fluoranthene	0.036	0.0078	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo(j,k)fluoranthene	0.012	0.0078	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[a]pyrene	0.024	0.0078	EPA 8270E/SIM	3-15-21	3-16-21	
Indeno(1,2,3-c,d)pyrene	0.015	0.0078	EPA 8270E/SIM	3-15-21	3-16-21	
Dibenz[a,h]anthracene	ND	0.0078	EPA 8270E/SIM	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>63</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>82</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>107</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-W-15.0					
Laboratory ID:	03-151-03					
Benzo[a]anthracene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Chrysene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[b]fluoranthene	0.013	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[a]pyrene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>88</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>83</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>92</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	UST-A-S-15.0					
Laboratory ID:	03-151-04					
Benzo[a]anthracene	0.097	0.0080	EPA 8270E/SIM	3-15-21	3-16-21	
Chrysene	0.040	0.0080	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[b]fluoranthene	0.059	0.0080	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo(j,k)fluoranthene	ND	0.0080	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[a]pyrene	0.043	0.0080	EPA 8270E/SIM	3-15-21	3-16-21	
Indeno(1,2,3-c,d)pyrene	0.020	0.0080	EPA 8270E/SIM	3-15-21	3-16-21	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>88</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>100</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>91</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
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 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-S4-8.0					
Laboratory ID:	03-151-05					
Benzo[a]anthracene	0.074	0.0079	EPA 8270E/SIM	3-15-21	3-16-21	
Chrysene	0.083	0.0079	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[b]fluoranthene	0.094	0.0079	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo(j,k)fluoranthene	0.022	0.0079	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[a]pyrene	0.085	0.0079	EPA 8270E/SIM	3-15-21	3-16-21	
Indeno(1,2,3-c,d)pyrene	0.054	0.0079	EPA 8270E/SIM	3-15-21	3-16-21	
Dibenz[a,h]anthracene	0.010	0.0079	EPA 8270E/SIM	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>82</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>87</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
 Samples Submitted: March 15, 2021
 Laboratory Reference: 2103-151
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-S6-8.0					
Laboratory ID:	03-151-06					
Benzo[a]anthracene	0.039	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Chrysene	0.042	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[b]fluoranthene	0.052	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo(j,k)fluoranthene	0.013	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[a]pyrene	0.040	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Indeno(1,2,3-c,d)pyrene	0.025	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>81</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>83</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>85</i>	<i>49 - 121</i>				



Date of Report: March 16, 2021
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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0315S3					
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-16-21	
Chrysene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[j,k]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-16-21	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-16-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-16-21	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	3-15-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>101</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>99</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>107</i>	<i>49 - 121</i>				



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 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
SPIKE BLANKS										
Laboratory ID:	SB0315S3									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	0.0888	0.0797	0.0833	0.0833	107	96	72 - 129	11	15	
Chrysene	0.0830	0.0888	0.0833	0.0833	100	107	66 - 123	7	15	
Benzo[b]fluoranthene	0.0782	0.0881	0.0833	0.0833	94	106	68 - 128	12	15	
Benzo(j,k)fluoranthene	0.0891	0.0793	0.0833	0.0833	107	95	63 - 128	12	16	
Benzo[a]pyrene	0.0868	0.0820	0.0833	0.0833	104	98	66 - 130	6	15	
Indeno(1,2,3-c,d)pyrene	0.0818	0.0821	0.0833	0.0833	98	99	63 - 135	0	15	
Dibenz[a,h]anthracene	0.0847	0.0847	0.0833	0.0833	102	102	65 - 130	0	15	
<i>Surrogate:</i>										
2-Fluorobiphenyl					94	104	46 - 113			
Pyrene-d10					95	97	45 - 114			
Terphenyl-d14					111	106	49 - 121			



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% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
UST-A-E-15.0	03-151-01	22	3-15-21
UST-A-N-15.0	03-151-02	15	3-15-21
UST-A-W-15.0	03-151-03	18	3-15-21
UST-A-S-15.0	03-151-04	17	3-15-21
Hoist-S4-8.0	03-151-05	16	3-15-21
Hoist-S6-8.0	03-151-06	18	3-15-21





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





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

March 19, 2021

Eric Buer
Farallon Consulting
1809 7th Avenue, Suite 1111
Seattle, WA 98101

Re: Analytical Data for Project 397-035
Laboratory Reference No. 2103-165

Dear Eric:

Enclosed are the analytical results and associated quality control data for samples submitted on March 16, 2021.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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: March 19, 2021
Samples Submitted: March 16, 2021
Laboratory Reference: 2103-165
Project: 397-035

Case Narrative

Samples were collected on March 15, 2021 and received by the laboratory on March 16, 2021. 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.

PAHs EPA 8270E/SIM Analysis

The method blank had one surrogate recovery outside of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

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



Date of Report: March 19, 2021
 Samples Submitted: March 16, 2021
 Laboratory Reference: 2103-165
 Project: 397-035

**GASOLINE RANGE ORGANICS
 NWTPH-Gx**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP1					
Laboratory ID:	03-165-01					
Gasoline	ND	6.7	NWTPH-Gx	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	58-129				
Client ID:	Hoist-SP2					
Laboratory ID:	03-165-02					
Gasoline	ND	6.4	NWTPH-Gx	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	58-129				
Client ID:	Hoist-SP3					
Laboratory ID:	03-165-03					
Gasoline	ND	6.8	NWTPH-Gx	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	99	58-129				



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**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:	MB0316S1					
Gasoline	ND	5.0	NWTPH-Gx	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-162-01							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				79	78	58-129		



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**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:	Hoist-SP1					
Laboratory ID:	03-165-01					
Diesel Range Organics	ND	29	NWTPH-Dx	3-17-21	3-17-21	
Lube Oil	180	58	NWTPH-Dx	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	101	50-150				

Client ID:	Hoist-SP2					
Laboratory ID:	03-165-02					
Diesel Range Organics	40	31	NWTPH-Dx	3-17-21	3-17-21	N
Lube Oil	230	61	NWTPH-Dx	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				

Client ID:	Hoist-SP3					
Laboratory ID:	03-165-03					
Diesel Range Organics	54	30	NWTPH-Dx	3-17-21	3-17-21	N
Lube Oil	290	60	NWTPH-Dx	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				



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**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:	MB0317S1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-17-21	3-17-21	
Lube Oil Range Organics	ND	50	NWTPH-Dx	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB0317S1							
	ORIG	DUP						
Diesel Fuel #2	91.1	79.8	NA	NA	NA	NA	13	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				98	90	50-150		



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VOLATILE ORGANICS EPA 8260D
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP1					
Laboratory ID:	03-165-01					
Dichlorodifluoromethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0065	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP1					
Laboratory ID:	03-165-01					
1,1,2-Trichloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	0.0012	0.00099	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	0.0011	0.00099	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	0.0032	0.0020	EPA 8260D	3-16-21	3-16-21	
o-Xylene	0.0025	0.00099	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,1,1,2,2-Tetrachloroethane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.00099	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>71-130</i>				



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VOLATILE ORGANICS EPA 8260D
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP2					
Laboratory ID:	03-165-02					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0053	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0053	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0053	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0053	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0070	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0053	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0053	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP2					
Laboratory ID:	03-165-02					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	0.0015	0.0011	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0021	EPA 8260D	3-16-21	3-16-21	
o-Xylene	0.0014	0.0011	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0053	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP3					
Laboratory ID:	03-165-03					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0066	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP3					
Laboratory ID:	03-165-03					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	0.012	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-16-21	3-16-21	
o-Xylene	0.0011	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>71-130</i>				



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VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0316S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloromethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Chloroethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Iodomethane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Methylene Chloride	ND	0.0066	EPA 8260D	3-16-21	3-16-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chloroform	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Benzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Toluene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	



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**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0316S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Ethylbenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
m,p-Xylene	ND	0.0020	EPA 8260D	3-16-21	3-16-21	
o-Xylene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Bromoform	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-16-21	3-16-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-16-21	3-16-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>71-130</i>				



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 Project: 397-035

**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:	SB0316S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0453	0.0446	0.0500	0.0500	91	89	55-126	2	17	
Benzene	0.0478	0.0482	0.0500	0.0500	96	96	65-121	1	16	
Trichloroethene	0.0524	0.0504	0.0500	0.0500	105	101	74-126	4	16	
Toluene	0.0483	0.0475	0.0500	0.0500	97	95	71-121	2	16	
Chlorobenzene	0.0496	0.0489	0.0500	0.0500	99	98	72-123	1	16	
<i>Surrogate:</i>										
Dibromofluoromethane					97	102	74-131			
Toluene-d8					98	98	78-128			
4-Bromofluorobenzene					107	105	71-130			



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 Project: 397-035

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP1					
Laboratory ID:	03-165-01					
Aroclor 1016	ND	0.058	EPA 8082A	3-17-21	3-17-21	
Aroclor 1221	ND	0.058	EPA 8082A	3-17-21	3-17-21	
Aroclor 1232	ND	0.058	EPA 8082A	3-17-21	3-17-21	
Aroclor 1242	ND	0.058	EPA 8082A	3-17-21	3-17-21	
Aroclor 1248	ND	0.058	EPA 8082A	3-17-21	3-17-21	
Aroclor 1254	ND	0.058	EPA 8082A	3-17-21	3-17-21	
Aroclor 1260	ND	0.058	EPA 8082A	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	105	46-125				
Client ID:	Hoist-SP2					
Laboratory ID:	03-165-02					
Aroclor 1016	ND	0.061	EPA 8082A	3-17-21	3-17-21	
Aroclor 1221	ND	0.061	EPA 8082A	3-17-21	3-17-21	
Aroclor 1232	ND	0.061	EPA 8082A	3-17-21	3-17-21	
Aroclor 1242	ND	0.061	EPA 8082A	3-17-21	3-17-21	
Aroclor 1248	ND	0.061	EPA 8082A	3-17-21	3-17-21	
Aroclor 1254	ND	0.061	EPA 8082A	3-17-21	3-17-21	
Aroclor 1260	ND	0.061	EPA 8082A	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	100	46-125				
Client ID:	Hoist-SP3					
Laboratory ID:	03-165-03					
Aroclor 1016	ND	0.060	EPA 8082A	3-17-21	3-17-21	
Aroclor 1221	ND	0.060	EPA 8082A	3-17-21	3-17-21	
Aroclor 1232	ND	0.060	EPA 8082A	3-17-21	3-17-21	
Aroclor 1242	ND	0.060	EPA 8082A	3-17-21	3-17-21	
Aroclor 1248	ND	0.060	EPA 8082A	3-17-21	3-17-21	
Aroclor 1254	ND	0.060	EPA 8082A	3-17-21	3-17-21	
Aroclor 1260	ND	0.060	EPA 8082A	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	87	46-125				



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 Project: 397-035

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0317S1					
Aroclor 1016	ND	0.050	EPA 8082A	3-17-21	3-17-21	
Aroclor 1221	ND	0.050	EPA 8082A	3-17-21	3-17-21	
Aroclor 1232	ND	0.050	EPA 8082A	3-17-21	3-17-21	
Aroclor 1242	ND	0.050	EPA 8082A	3-17-21	3-17-21	
Aroclor 1248	ND	0.050	EPA 8082A	3-17-21	3-17-21	
Aroclor 1254	ND	0.050	EPA 8082A	3-17-21	3-17-21	
Aroclor 1260	ND	0.050	EPA 8082A	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	89		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	03-165-01										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.488	0.494	0.500	0.500	ND	98	99	43-125	1	15	
<i>Surrogate:</i>											
DCB						89	101	46-125			



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

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP1					
Laboratory ID:	03-165-01					
Arsenic	ND	12	EPA 6010D	3-16-21	3-16-21	
Barium	81	2.9	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.58	EPA 6010D	3-16-21	3-16-21	
Chromium	46	0.58	EPA 6010D	3-16-21	3-16-21	
Lead	19	5.8	EPA 6010D	3-16-21	3-16-21	
Mercury	ND	0.29	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.2	EPA 6010D	3-16-21	3-16-21	

Client ID:	Hoist-SP2					
Laboratory ID:	03-165-02					
Arsenic	ND	12	EPA 6010D	3-16-21	3-16-21	
Barium	130	3.1	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.61	EPA 6010D	3-16-21	3-16-21	
Chromium	47	0.61	EPA 6010D	3-16-21	3-16-21	
Lead	24	6.1	EPA 6010D	3-16-21	3-16-21	
Mercury	ND	0.31	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.2	EPA 6010D	3-16-21	3-16-21	

Client ID:	Hoist-SP3					
Laboratory ID:	03-165-03					
Arsenic	ND	12	EPA 6010D	3-16-21	3-16-21	
Barium	100	3.0	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.60	EPA 6010D	3-16-21	3-16-21	
Chromium	35	0.60	EPA 6010D	3-16-21	3-16-21	
Lead	60	6.0	EPA 6010D	3-16-21	3-16-21	
Mercury	ND	0.30	EPA 7471B	3-16-21	3-16-21	
Selenium	ND	12	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.2	EPA 6010D	3-16-21	3-16-21	



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**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:	MB0316SM1					
Arsenic	ND	10	EPA 6010D	3-16-21	3-16-21	
Barium	ND	2.5	EPA 6010D	3-16-21	3-16-21	
Cadmium	ND	0.50	EPA 6010D	3-16-21	3-16-21	
Chromium	ND	0.50	EPA 6010D	3-16-21	3-16-21	
Lead	ND	5.0	EPA 6010D	3-16-21	3-16-21	
Selenium	ND	10	EPA 6010D	3-16-21	3-16-21	
Silver	ND	1.0	EPA 6010D	3-16-21	3-16-21	

Laboratory ID:	MB0316S2					
Mercury	ND	0.25	EPA 7471B	3-16-21	3-16-21	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	03-113-03							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	30.7	32.4	NA	NA	NA	6	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	15.6	15.8	NA	NA	NA	1	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	03-136-01							
Mercury	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	03-136-01									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	88.4	88.3	100	100	ND	88	88	75-125	0	20
Barium	120	120	100	100	30.7	89	89	75-125	0	20
Cadmium	43.3	43.6	50.0	50.0	ND	87	87	75-125	1	20
Chromium	104	103	100	100	15.6	88	87	75-125	1	20
Lead	218	222	250	250	ND	87	89	75-125	2	20
Selenium	88.3	88.3	100	100	ND	88	88	75-125	0	20
Silver	20.6	20.7	25.0	25.0	ND	82	83	75-125	1	20

Laboratory ID:	03-136-01									
Mercury	0.412	0.414	0.500	0.500	0.00560	81	82	80-120	0	20



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: March 19, 2021
 Samples Submitted: March 16, 2021
 Laboratory Reference: 2103-165
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP1					
Laboratory ID:	03-165-01					
Benzo[a]anthracene	0.014	0.0077	EPA 8270E/SIM	3-17-21	3-17-21	
Chrysene	0.020	0.0077	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo[b]fluoranthene	0.017	0.0077	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo(j,k)fluoranthene	ND	0.0077	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo[a]pyrene	0.015	0.0077	EPA 8270E/SIM	3-17-21	3-17-21	
Indeno(1,2,3-c,d)pyrene	0.0097	0.0077	EPA 8270E/SIM	3-17-21	3-17-21	
Dibenz[a,h]anthracene	ND	0.0077	EPA 8270E/SIM	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>84</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>98</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>93</i>	<i>49 - 121</i>				



Date of Report: March 19, 2021
 Samples Submitted: March 16, 2021
 Laboratory Reference: 2103-165
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP2					
Laboratory ID:	03-165-02					
Benzo[a]anthracene	0.015	0.0081	EPA 8270E/SIM	3-17-21	3-17-21	
Chrysene	0.021	0.0081	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo[b]fluoranthene	0.024	0.0081	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo[a]pyrene	0.018	0.0081	EPA 8270E/SIM	3-17-21	3-17-21	
Indeno(1,2,3-c,d)pyrene	0.016	0.0081	EPA 8270E/SIM	3-17-21	3-17-21	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>76</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>87</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>86</i>	<i>49 - 121</i>				



Date of Report: March 19, 2021
 Samples Submitted: March 16, 2021
 Laboratory Reference: 2103-165
 Project: 397-035

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Hoist-SP3					
Laboratory ID:	03-165-03					
Benzo[a]anthracene	0.057	0.0080	EPA 8270E/SIM	3-17-21	3-17-21	
Chrysene	0.065	0.0080	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo[b]fluoranthene	0.069	0.0080	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo(j,k)fluoranthene	0.024	0.0080	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo[a]pyrene	0.056	0.0080	EPA 8270E/SIM	3-17-21	3-17-21	
Indeno(1,2,3-c,d)pyrene	0.039	0.0080	EPA 8270E/SIM	3-17-21	3-17-21	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>86</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>93</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>98</i>	<i>49 - 121</i>				



Date of Report: March 19, 2021
 Samples Submitted: March 16, 2021
 Laboratory Reference: 2103-165
 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0317S1					
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	3-17-21	3-17-21	
Chrysene	ND	0.0067	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo[j,k]fluoranthene	ND	0.0067	EPA 8270E/SIM	3-17-21	3-17-21	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	3-17-21	3-17-21	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	3-17-21	3-17-21	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	3-17-21	3-17-21	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	102	46 - 113				
Pyrene-d10	120	45 - 114				Q
Terphenyl-d14	113	49 - 121				



Date of Report: March 19, 2021
 Samples Submitted: March 16, 2021
 Laboratory Reference: 2103-165
 Project: 397-035

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
SPIKE BLANKS										
Laboratory ID:	SB0317S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzo[a]anthracene	0.0896	0.0875	0.0833	0.0833	108	105	72 - 129	2	15	
Chrysene	0.0840	0.0872	0.0833	0.0833	101	105	66 - 123	4	15	
Benzo[b]fluoranthene	0.0839	0.0827	0.0833	0.0833	101	99	68 - 128	1	15	
Benzo(j,k)fluoranthene	0.0853	0.0859	0.0833	0.0833	102	103	63 - 128	1	16	
Benzo[a]pyrene	0.0835	0.0840	0.0833	0.0833	100	101	66 - 130	1	15	
Indeno(1,2,3-c,d)pyrene	0.0836	0.0819	0.0833	0.0833	100	98	63 - 135	2	15	
Dibenz[a,h]anthracene	0.0822	0.0830	0.0833	0.0833	99	100	65 - 130	1	15	
<i>Surrogate:</i>										
2-Fluorobiphenyl					100	101	46 - 113			
Pyrene-d10					114	113	45 - 114			
Terphenyl-d14					110	109	49 - 121			



Date of Report: March 19, 2021
Samples Submitted: March 16, 2021
Laboratory Reference: 2103-165
Project: 397-035

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
Hoist-SP1	03-165-01	13	3-16-21
Hoist-SP2	03-165-02	18	3-16-21
Hoist-SP3	03-165-03	17	3-16-21





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



Chain of Custody

Company: Farallon
 Project Number: 397-035
 Project Name: Block 79
 Project Manager: Eric Buer
 Sampled by: Courtney van Stolk

Turnaround Request (in working days)

(Check One)

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

Laboratory Number: 03-165

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX <u>826D</u>	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>cPAHs</u>	% Moisture
1	Moist-SP1	3-15	1408	soil	6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	Moist-SP2	↓	1410	↓	↓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3	Moist-SP3	↓	1428	↓	↓	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
603																								

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<u>Courtney van Stolk</u>	<u>Farallon</u>	<u>3-16-21</u>	<u>0937</u>	
Received	<u>Van</u>	<u>Spdy</u>	<u>3-16-21</u>	<u>0937</u>	
Relinquished	<u>Van</u>	<u>Spdy</u>	<u>3-16-21</u>	<u>1105</u>	
Received	<u>[Signature]</u>	<u>OSTE</u>	<u>3/16/21</u>	<u>1105</u>	
Relinquished					
Received					Data Package: Standard <input 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 type="checkbox"/>

APPENDIX E
REMEDIAL INVESTIGATION QUALITY ASSURANCE
AND SAMPLING ANALYSIS PLAN

REMEDIAL INVESTIGATION WORK PLAN
BLOCK 79 EAST SITE
701, 739, 753 9th Avenue North
Seattle, Washington

Farallon PN: 397-035



SAMPLING AND ANALYSIS PLAN

**BLOCK 79 EAST SITE
701, 739, AND 753 9th AVENUE NORTH
SEATTLE, WASHINGTON**

**Submitted by:
Farallon Consulting, L.L.C.
975 5th Avenue Northwest
Issaquah, Washington 98027**

Farallon PN: 397-035

**For:
Block 79 LLC
505 5th Avenue South, Suite 900
Seattle, Washington 98104**

July 23, 2024

Prepared by:

A handwritten signature in blue ink, appearing to read "B. Goulet".

Brianne Goulet, L.G.
Associate Geologist

Reviewed by:

A handwritten signature in blue ink, appearing to read "Eric F. Buer".

Eric Buer, L.G., L.H.G.
Principal Hydrogeologist



Eric Finn Buer



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APPENDICES

Appendix A Standard Operating Procedures

Appendix B Field Documentation Forms

ACRONYMS AND ABBREVIATIONS

AO	Agreed Order No. DE 21104 between the Washington State Department of Ecology and Block 79 LLC
bgs	below ground surface
Block 79 East Property	The property at 701, 739, and 753 9 th Avenue North in Seattle, Washington
COPC	constituents of potential concern
DOT	U.S. Department of Transportation
DQOs	data quality objectives
Draft RI Work Plan	Block 79 East Site Draft Remedial Investigation Work Plan prepared by Farallon for Block 79 East LLC dated March 6, 2023.
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
Farallon	Farallon Consulting, L.L.C.
LCS	laboratory control samples
MS	matrix spike
MSD	matrix spike duplicate



MTCA	Washington State Model Toxics Control Act Cleanup Regulation
NAVD88	North American Vertical Datum of 1988
PARCC	precision, accuracy, representativeness, completeness, and comparability
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
RI Report	Remedial Investigation Report
RPD	relative percent difference
SAP	Sampling and Analysis Plan
SOP	standard operating procedures
WAC	Washington State Administrative Code



1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Sampling and Analysis Plan (SAP), which includes the elements of a Quality Assurance Project Plan (QAPP) on behalf of Block 79 LLC to present specific methodologies for the collection, handling, and analysis of samples that will be conducted during implementation of the Draft Remedial Investigation Work Plan (Draft RI Work Plan) at the Block 79 East Site. The Draft RI Work Plan was prepared in accordance with the requirements of Section VII.A (Work to be Performed) of Agreed Order No. DE 21104 between the Washington State Department of Ecology (Ecology) and Block 79 LLC (AO).

The Block 79 East Property, which currently comprises the majority of the Block 79 East Site, consists of 701, 739, and 753 9th Avenue North in Seattle, Washington (Figure E-1). The Block 79 East Property composes the eastern half of Block 79, identified as the block between Aloha Street, 9th Avenue North, Roy Street, and 8th Avenue North (Figures E-2A and E-2B). An alleyway, owned by the City of Seattle, bisects Block 79 from north to south. The west-adjacent property at 800 Roy Street, 710 8th Avenue North, and 800 to 801 Aloha Street is referred to as the Block 79 West Property and is also owned by the City of Seattle.

This SAP and QAPP has been prepared in accordance with the Washington State Model Toxics Control Act Cleanup Regulation (MTCA) as established in Section 820 of Chapter 173-340 of the Washington State Administrative Code (WAC 173-340-820) and *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies* revised December 2016, prepared by Ecology (2016). The purpose of the SAP is to define the specific requirements for sample collection and analytical activities to ensure that activities are conducted in accordance with technically acceptable protocols and that the results meet the data quality objectives (DQOs). The SAP presents the protocols pertaining to sampling equipment and procedures and sample handling and analysis that will be used during the remedial investigation at the Block 79 East Property. Sampling objectives, sample locations, measurement frequencies, and quality assurance and quality control requirements are also described. The SAP provides a basis for conducting field activities and a mechanism for complying with quality assurance requirements.



1.1 PURPOSES

The purposes of the SAP are to:

- Summarize the scope of work for the remedial investigation being performed under the AO between Ecology and Block 79 LLC;
- Identify sample locations and media, sample quantities, analytical methods, and documentation protocols for the sampling program;
- Describe standard operating procedures (SOPs) for field activities that will be conducted as part of the remedial investigation; and
- Provide quality assurance (QA) and quality control (QC) protocols for field activities and laboratory analysis to ensure collection of representative and useable data.



2.0 PROJECT DESCRIPTION

This section provides a summary of the scope of work and Farallon's project organization and schedule.

2.1 SCOPE OF WORK

The scope of the remedial investigation was developed in accordance with Ecology requirements and guidance, including MTCA. The scope of the remedial investigation was discussed during communications among Block 79 LLC, Farallon, and Ecology and is presented in the Draft RI Work Plan. The remedial investigation will be documented in a Remedial Investigation Report (RI Report) and will support the evaluation of cleanup action alternatives under a feasibility study for the Block 79 East Site. The remedial investigation and feasibility study will be used to develop a draft cleanup action plan for the Block 79 East Site.

The planned locations for the advancement of borings and installation of groundwater monitoring wells as part of the remedial investigation are shown on Figure E-3. Tables E-1 and E-2 list the sampling locations for soil and groundwater and provide the scope of work and rationale for each sampling location.

2.2 PROJECT ORGANIZATION AND RESPONSIBILITIES

The project organization for conducting the scope of work described in the SAP, including identification of key personnel and their responsibilities, is presented below.

Regulatory Agency. Ecology is the lead regulatory agency for the Site. Ecology's Site manager for the Block 79 East Site is:

Tanner Bushnell, P.E.
Washington State Department of Ecology
Northwest Regional Office
15700 Dayton Avenue North
PO Box 330316
Shoreline, Washington 98133-9716
Telephone: (425) 691-0571
tanner.bushnell@ecy.wa.gov



Project Contact. Farallon has been contracted by Block 79 LLC to plan and implement the SAP. The Project Contact for Block 79 LLC is:

Corey Wilson
Block 79 LLC
505 5th Avenue South, Suite 900
Seattle, Washington 98104
Telephone: (206) 342-2000
coreyw@vulcan.com

Project Principal. The Project principal provides support for all project activities and reviews data and deliverables prior to their submittal to the Project Contact or Regulatory Agency. The Project Principal is:

Eric Buer, L.G., L.H.G.
Farallon Consulting, L.L.C.
1809 7th Avenue, Suite 1111
Seattle, Washington 98101
Telephone: (425)295-0800
ebuer@farallonconsulting.com

Project Manager. The Project Manager has day-to-day responsibility for project implementation. The Project Manager will be responsible for monitoring the quality of the technical and managerial aspects of the project, and implementing the SAP and corresponding corrective actions, if necessary. The Project Manager for Farallon is:

Courtney van Stolk
Farallon Consulting, L.L.C.
1809 7th Avenue, Suite 1111
Seattle, Washington 98101
Telephone: (425) 295-0800
cvanstolk@farallonconsulting.com

Project Data Manager. The Project Data Manager manages data as it is received from the laboratory and is responsible for data validation. Data validation responsibilities include reviewing laboratory reports, advising on data corrective action procedures, and performing QA/QC on analytical data reports. In addition, the Project Data Manager will directly transfer laboratory data



into an EQUIS environmental data management system database (EQUIS database) and the Ecology Environmental Information Management System. The Data Manager for Farallon is:

Jeanette Mullin
Farallon Consulting, L.L.C.
975 5th Avenue Northwest
Issaquah, Washington 98027
Telephone: (425) 295-0800
jmullin@farallonconsulting.com

Field Staff. Members of the field staff supervise contractor procedures, manage collection of samples, coordinate sample deliveries to the laboratory, and document field-sampling activities. Field staff also will communicate progress updates to the Project Manager, including deviations from the SAP.

Laboratory – OnSite Environmental, Inc. Onsite Environmental, Inc. (OnSite) in Redmond, Washington will perform analytical services in support of the remedial action and will be responsible for implementing specific QA/QC requirements.

2.3 PROJECT SCHEDULE

The remedial investigation field activities will be initiated following Ecology's approval of the Draft RI Work Plan and in accordance with the AO schedule. Field investigation work is anticipated to take approximately 1 year to complete.



3.0 FIELD PROCEDURES

This section summarizes the protocols and procedures that will be followed for field data collection. Farallon SOPs for fieldwork, including detailed step-by-step protocols, are provided in Appendix A.

3.1 SOIL SAMPLING

Soil samples will be collected from discrete depth intervals during boring advancement. Proposed sampling locations are shown on Figure E-3. Final locations may be adjusted as necessary based on access and utilities. Farallon will use the one-call and private utility location services to confirm the location of subsurface utilities in accordance with Farallon SOP GN-02 (Appendix A).

Borings will be drilled to approximately 30 feet below ground surface (bgs). The Intermediate Water-Bearing Zone monitoring well will be drilled to target depths between 60 and 80 feet bgs, with final screened intervals to be identified based on water-bearing zone lithology. The first 5 feet of each boring location will be cleared either by hand or with an air knife. Borings will be advanced using a direct-push or sonic drill rig depending on drilling conditions.

Soil samples will be collected continuously in acetate liners or plastic sampling bags at borings advanced by direct push or sonic drilling methods, respectively. Soil will be collected from all borings for lithologic description and potential laboratory analysis. The proposed sampling strategy across the Block 79 East Property is to collect one to two samples from each vadose location, and a sample at the water table. Locations identified for fill characterization include a sample at the bottom of each boring targeting native material.

Locations on the Ducati and Maaco Properties with proximate surficial releases (e.g., FB-08 and FB-09) have additional vadose and saturated samples selected for analysis to evaluate and bound the releases with higher resolution. Shallow groundwater wells installed to evaluate GRO and BTEX impacts on the Maaco and Bayside Volvo Properties analyze vadose and saturated samples at the water table but retain deeper samples for future analysis if needed to vertically bound soil contamination. Additional depth intervals may be added for analysis based on conditions



encountered during drilling or analytical results from samples initially selected for analysis. Individual soil sampling intervals are identified in Tables 14A and 14B of the RIWP.

Soil samples will be collected from the borings and handled in accordance with the requirements of Farallon SOP SL-01 (Appendix A); Section 4, Sample Handling; and Section 7, Field Documentation. Select borings will be completed as groundwater monitoring wells as described below in Section 3.2. Soil samples to be analyzed for volatile organic compounds will be collected in accordance with U.S. Environmental Protection Agency (EPA) Method 5035A.

3.2 MONITORING WELL CONSTRUCTION, DEVELOPMENT, AND SURVEY

Proposed new monitoring well locations are shown on Figure E-3. Farallon field staff will observe monitoring well drilling and installation and document observations as described in Section 7, Field Documentation. Monitoring well construction and development will be performed in accordance with Farallon SOPs GW-01 and GW-02 (Appendix A). Monitoring wells will be constructed in accordance with WAC 173-160-400 and will meet Washington State requirements for resource protection well construction.

Monitoring wells will be installed using 2-inch-diameter Schedule-40 polyvinyl chloride well casings with a 0.020-inch slotted well screen or similar as appropriate for the lithology observed. Each monitoring well filter pack will consist of 10/20 Colorado Silica sand emplaced in the borehole annulus up to 1 foot above the top of the screen. The borehole will be sealed to within 2 feet of the surface with hydrated bentonite chips. The monitoring wells will be completed with flush-mounted steel monuments set in concrete.

New monitoring wells will be developed using a submersible pump. Each monitoring well will be developed until the majority of fine-grained sediment has been removed from the well screen and adjacent sand pack. New monitoring wells will be surveyed using the Washington State Plane North coordinates system (units of survey feet) and top of casing elevations will be measured using the North American Vertical Datum of 1988 (NAVD88; units of survey feet) by a Washington State Professionally Licensed Land Surveyor.



New monitoring wells targeting the Shallow Water-Bearing Zone will be screened across the top of the Shallow Water-Bearing Zone at depths between approximately 10 to 20 feet bgs (15 to 25 feet NAVD88). New Intermediate Water-Bearing Zone monitoring wells will be screened at depths of approximately 25 to 30 feet bgs (5 to 10 feet NAVD88).

3.3 GROUNDWATER MONITORING

Groundwater monitoring will be conducted for four quarters during the remedial investigation. Groundwater sampling events will include measuring the depth-to-groundwater and collecting groundwater samples from selected monitoring wells as identified in Table E-2. Procedures for measuring the depth to groundwater and low-flow groundwater sampling are provided in Farallon SOPs GW-03 and GW-04 (Appendix A). Farallon will record observations and field data on Field Report forms as described in Section 7, Field Documentation.

Proposed analytes for each selected location are identified in Table 14B of the Draft RI Work Plan. Expanded analyte lists are proposed at a limited number of locations for two quarterly events (winter and spring) followed by evaluation of the analytical results to determine whether the COPC list is complete. In coordination with Ecology, analytes that are not detected in either event, or are detected at concentrations below Block 79 East Site screening levels, will be removed from further consideration; analytes that are detected at concentrations greater than Block 79 East Site screening levels will be carried forward for further evaluation as COPCs for groundwater.

3.4 DECONTAMINATION PROCEDURES

Reusable equipment will be decontaminated in accordance with Farallon SOP EQ-01 (Appendix A).



4.0 SAMPLE HANDLING

This section discusses the sample containers, preservation, and holding times; sample documentation, designation, labeling; and sample-handling methods to be used during the remedial investigation. The protocols discussed include sample containers, preservation and holding times, sample documentation, collection of QA/QC samples, and sample packaging and shipment.

4.1 SAMPLE DOCUMENTATION

Sample documentation includes sample labels, Field Report forms, Soil Sample Data Log forms, and Chain of Custody forms. Other sample documentation to be maintained by field personnel are provided in Appendix B.

Each sample container will be marked with a durable adhesive label and labeled with a unique identifier. The sample identifier for each sample will be constructed according to Section 4.2, Sample Designation, and recorded in the Field Report forms and on the sample Chain of Custody form (Appendix B). Sample labels will include the client name, project name and number, date and time sampled, sample identifier, sampler's initials, requested sample analysis, and analyte preservative(s), if any. The Chain of Custody form will include the sample identifier, date and time of sample collection, sampler's initials, number of containers, and requested sample analysis. Entries for all samples will be made on the Chain of Custody form prior to the transfer of the samples off the Site.

4.2 SAMPLE DESIGNATION

Sample designation and labeling procedures for soil and groundwater samples are presented below.

4.2.1 Soil Sample Identifiers

Soil samples will be assigned a unique sample identifier that will include the sample location (e.g., boring location) and the elevation of the sample stated in feet above NAVD88. For example, a sample collected from boring FMW-150 at an elevation of 20 feet NAVD88 would be assigned the identifier FMW-150-20.0. The sample identifier will be recorded on the sample label, Field Report form, Soil Sample Data Log, and Chain of Custody form.



4.2.2 Groundwater Sample Identifiers

The water samples will be assigned a unique sample identifier that will include the sample location identifier (e.g., boring or well identifier) and the sample date in the format YYMMDD (e.g., 230306).

For example, a groundwater sample collected from monitoring well FMW-140 on July 1, 2023 would be numbered FMW-140-230701. The sample identifier will be recorded on the sample label, Field Report form, and Chain of Custody form.

4.3 SAMPLE CONTAINERS, PRESERVATION PROCEDURES, AND HOLDING TIMES

Sample container requirements for soil and groundwater samples are based on the medium to be sampled and the types of analyses to be performed. The containers, preservation procedures, and hold times for soil and groundwater are shown in Table E-3 and follow standard laboratory protocols.

4.4 FIELD QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

Field duplicate samples will be collected during sampling to assess the precision of laboratory analytical and field sampling methods. Soil sampling is subject to potentially wide ranges of variability due to the heterogeneity of the sample and the limited mass of soil sampled. Conversely, media such as groundwater are not as susceptible to the effects of heterogeneity and are more reliable media for establishing measures of precision and/or accuracy. Field duplicate soil samples will not be collected. Field duplicates for groundwater samples will be collected at a frequency of one duplicate sample per 10 groundwater samples collected. Field duplicates will have a unique sample location identifier. For example, a duplicate sample collected from monitoring well FMW-140 on July 1, 2023 would have the sample identifier “FMW-140D-230701.”



4.5 SAMPLE PACKAGING AND SHIPMENT

The samples shipped for laboratory analysis will be packaged according to applicable regulations and the recommendations of the laboratory performing the analysis. Samples will be expeditiously transported to the analytical laboratory after being sealed in coolers.

The following procedures (representing the minimum shipping and handling requirements) will be used for sample packaging:

- A sample label will be affixed to the corresponding sample container at the time of sample collection.
- Bubble-wrap bags or an equivalent will be used to protect sample containers.
- Sample containers will be placed into a cooler and checked against the Chain of Custody form to ensure that all samples are listed and are placed into the correct cooler.
- One copy of the Chain of Custody form will be detached and retained by the Farallon Field Scientist.
- Remaining paperwork will be sealed in a resealable plastic bag and taped to the inside of the cooler lid.
- One to three resealable bags will be filled with ice and/or a chemical equivalent and included in the cooler. Ice will be double-bagged in heavy-duty bags.
- The cooler will be sealed with a chain-of-custody seal and taped shut using strapping tape.
- The laboratory address will be affixed to the cooler.
- Extraneous stickers will be removed from the cooler.
- The cooler will be examined to ensure that Farallon's return address is affixed.

Upon transfer of the samples to laboratory personnel or arrival of the samples at the laboratory facility, the laboratory will assume responsibility for custody of the samples. Laboratory personnel will document the status of shipping and handling containers and will adhere to standard chain-of-custody procedures to track each sample through all of the stages of laboratory processing.



5.0 LABORATORY ANALYSIS

This section describes the details of the laboratory analysis associated with soil and groundwater samples that will be collected during the remedial investigation. Laboratory analyses will be conducted by OnSite. OnSite is accredited by Ecology and meets the QA/QC requirements of Ecology and EPA. Screening levels, sample containers, preservation, and holding times, and reporting limits are presented in Tables E-3 through E-5.

5.1 LABORATORY ANALYSES

Soil and/or groundwater samples may be analyzed for one or more of the following analytes, depending on the sample location:

- Total petroleum hydrocarbons as gasoline-range organics by Northwest Method NWTPH-Gx;
- Total petroleum hydrocarbons as diesel-range and oil-range organics by Northwest Method NWPTH-Dx;
- Volatile organic compounds including chlorinated volatile organic compounds, benzene, toluene, ethylbenzene, and xylenes, and fuel additives by EPA Method 8260D;
- Carcinogenic polycyclic aromatic hydrocarbons and total naphthalenes by EPA Method 8270D SIM; and
- Resource Conservation and Recovery Act metals by EPA Method Series 200/6000/7000.

Tables E-1 and E-2 list the analytes that will be analyzed at each sampling location.

5.2 REPORTING LIMITS

The analytical methods identified above will have the reporting limits (or practical quantitation limits) that are shown in Table E-5. The laboratory reporting limits are based on current laboratory data and may be modified during the investigation as methodology is refined. Instances may arise where high sample concentration, heterogeneity of samples, or matrix interferences preclude achieving the laboratory reporting limits.



6.0 MANAGEMENT OF INVESTIGATION-DERIVED WASTE

Soil cuttings, wastewater, and other products generated during the remedial investigation may be contaminated and will be containerized and stored as appropriate pending receipt of analytical results. Disposal options for each of the expected waste streams are discussed below.

6.1 WASTE SOIL

Waste soil generated by the installation of borings and monitoring wells will be placed into U.S. Department of Transportation (DOT)–approved 55-gallon drums provided by the drilling contractor pending analysis and profiling of the waste soil. The drums will be labeled with the content, date generated, origin, and generator information. Waste soil temporarily stored at the Block 79 East Site will be tracked using a Waste Inventory Tracking Sheet (Appendix B).

Soil analytical data will be used to develop soil disposal profiles. Farallon will provide bids for disposal to Block 79 LLC based on the laboratory analytical data. The waste profiles will be provided to the selected landfill facility or permitted transport, storage, and disposal facility.

6.2 WASTEWATER

Wastewater generated by equipment decontamination and well development and purging will be placed into DOT-approved 55-gallon drums for storage at the Block 79 East Site. Wastewater generated during the remedial investigation will be tracked using a Waste Inventory Tracking Sheet.

Groundwater analytical data from groundwater monitoring and sampling will be used to develop wastewater profiles. Farallon will provide bids for disposal to Block 79 LLC based on the laboratory analytical data. The waste profiles will be provided to the selected permitted facility.

6.3 DISPOSABLES

Disposable personal protective clothing (e.g., Tyvek suits, rubber gloves, boot covers) and disposable sampling devices (e.g., plastic soil sample plungers) will be cleaned, placed into plastic garbage bags, and disposed of as nonhazardous waste.



7.0 FIELD DOCUMENTATION

Documentation of field activities will be provided on Field Report forms, boring logs, Low-Flow Well Purging and Sampling Data forms, Soil Sample Data Logs, sample and waste material labels, Waste Inventory forms, and Chain of Custody forms. Documentation generated during the field program will be retained in the project files and included in the reports generated, as appropriate. Filled forms and records will be maintained in the Farallon project files. Example forms and labels are provided in Appendix B.

7.1 FIELD REPORT FORM

Field personnel will be required to keep a daily field log on a Field Report form. Field notes will be as descriptive and inclusive as possible, enabling independent parties to reconstruct the sampling situation from the recorded information. Language will be objective, factual, and free of inappropriate or ambiguous terms and/or opinions.

A summary of each day's events will be provided on the Field Report form. At a minimum, field documentation will include the date, job number, project identification and location, weather conditions, sample collection data, personnel present and responsibilities, field equipment used, and any activities performed in a manner other than as specified in this SAP. In addition, if other forms or documents such as well-head surveys or maps are completed or used, they will be cited in and attached to the Field Report form. Field personnel will sign the completed Field Report form.

7.2 BORING LOGS

Boring logs will be prepared by a Farallon Scientist for each boring and/or monitoring well drilled. The log includes hydrologic conditions, lithologic descriptions using the Unified Soil Classification System, and information on the potential presence of contamination.



7.3 LOW-FLOW WELL PURGING AND SAMPLING DATA FORM

A Low-Flow Well Purging and Sampling Data form will be used to record the depth to groundwater, well purging information, and other pertinent hydrologic measurements and supplementary information collected during groundwater sampling at each monitoring well. The form will be completed by the Field Scientist at the time of sample collection.

7.4 SOIL SAMPLE DATA LOG

A Soil Sample Data Log will be used to record information pertaining to soil samples collected. This log includes entries for the sample location, identification, and depth; the time sampled; field-screening results; the types and number of containers collected; and a brief lithologic description.

7.5 SAMPLE LABEL

Sample labels will be filled out and affixed to appropriate sample containers immediately prior to sample collection. The label will be filled out with indelible ink and includes the medium, date, time sampled, sample identifier (see Section 4.2, Sample Designation), project name, project number, sampler's initials, and analyte preservative(s) if any.

7.6 WASTE MATERIAL LABEL

A waste material label is filled out and affixed to the appropriate waste container immediately upon filling. The label is filled out in indelible ink and includes the job number and name, address where the waste was generated, container contents, date, consultant's name and phone number, and sampler's initials.

7.7 WASTE INVENTORY FORM

A Waste Inventory form will be used to document and track the wastes generated during the characterization field work. The form will include information on the waste container, origin of the waste, type of waste, date generated, date removed from the Site, transporter, and disposal location. A copy of the Waste Inventory form is included in Appendix B.



7.8 CHAIN OF CUSTODY FORM

The Chain of Custody form provides an accurate written record that can be used to trace the possession and handling of the sample from the moment of its collection through analysis and reporting of analytical values. The Chain of Custody form should be updated whenever samples are collected, transferred, stored, analyzed, or destroyed. The Chain of Custody form includes the client name, project name and number, date and time sampled, sample identifier, sampler's initials, and requested sample analysis.



8.0 QUALITY ASSURANCE PROJECT PLAN

This section describes the analytical program to be conducted for each sample selected for chemical analysis, as well as the laboratory QA objectives and QC protocols required to be met to ensure collection of representative and useable data.

8.1 DATA QUALITY OBJECTIVES

DQOs for this project will be used to develop and implement procedures to ensure that the data collected are of sufficient quality to adequately address the remedial investigation objectives. Observations and measurements will be made and recorded in a manner so as to yield results representative of the media and conditions observed and/or measured. Goals for representativeness will be met by ensuring that sampling locations are selected properly, a sufficient number of samples are collected, and field screening and laboratory analyses are conducted properly.

DQOs for this project include:

- Collect and retain sufficient soil data in order to define the extent of constituents of potential concern (COPCs) on the Block 79 East Property and for migration pathways of concern;
- Collect groundwater samples from the Shallow Water-Bearing Zone and Intermediate Water-Bearing Zone sufficient to evaluate the nature and extent of COPCs in each zone and migration pathways of concern;
- Perform synoptic measurements of groundwater levels at the Block 79 East Property for the Shallow Water-Bearing Zone and Intermediate Water-Bearing Zone to evaluate groundwater gradient and flow direction as it affects migration of COPCs;
- Achieve a practical quantitation limit for analytical results sufficient for direct comparison against screening levels; and
- Implement QA/QC protocols described in this SAP so that data collected are scientifically defensible.



The quality of the field sampling methods and laboratory data will be assessed using the parameters of precision, accuracy, representativeness, comparability, completeness, and sensitivity (PARCCS). QC procedures for PARCCS are described in the following sections. Quantitative DQOs for applicable parameters (i.e., precision, accuracy, and completeness) are provided following their definition. Laboratory DQOs have been established by OnSite and are specified in the OnSite Quality Assurance Manuals. The OnSite Quality Assurance Manual will be kept on file at the Farallon corporate office in Issaquah, Washington.

8.1.1 Precision

Precision is defined as the degree of agreement between or among independent, similar, or repeated measures, and is expressed in terms of analytical variability. For this project, analytical variability will be measured as the relative percent difference (RPD) or coefficient of variation between analytical laboratory duplicates, and between the matrix spike (MS) and matrix spike duplicate (MSD) analyses. Monitoring and sampling variability will be measured by analysis of blind field-replicate samples.

The tolerance limit for percent differences between laboratory duplicates will be ± 20 percent; deviations from these criteria will be reported. If the criteria are not met, the laboratory will provide an explanation of why the limits were exceeded, and will implement appropriate corrective actions for laboratory control samples (LCSs)/LCS duplicates only. RPDs will be evaluated during data review and validation. If precision limit exceedances are linked to field sampling, those field sampling procedures will be reviewed, and any problems will be identified. Re-sampling and analysis may be required.

8.1.2 Accuracy

Accuracy (bias) is a statistical measurement of correctness and includes components of random error (i.e., variability due to imprecision) and systematic error. It therefore reflects the total error associated with a measurement. A measurement is accurate when the value reported does not differ excessively from the known concentration of the spike or standard.



Accuracy measures the bias in a measurement system and is difficult to measure for the entire data collection activity. Sources of error include the sampling process, field contamination, preservative handling, sample matrix effects, and sample preparation and analysis techniques. To confirm that the samples collected are not contaminated during the analytical process, laboratory method blank samples will be analyzed.

Laboratory MSs and surrogates will be carried out at the analytical laboratory in accordance with EPA SW-846 requirements for organic chemical analyses. The frequency for both MSs and MSDs analysis will be one per batch of 20 or fewer samples. Quantitative percent recovery criteria for organic analyses will be based on laboratory-derived control limits for surrogate recovery and MS results.

The resultant percent recovery will be compared to the acceptance criteria defined by the laboratory for each sample in the laboratory report, and deviations from specified limits will be reported. If the objective criteria are not met, the laboratory will provide an explanation of why acceptability limits were exceeded, and will implement appropriate corrective actions. Percent recoveries will be reviewed during data validation, and deviations from the specified limits will be noted. The data reviewer will comment on the effect of the deviations on reported data.

8.1.3 Representativeness

Representativeness is a qualitative assessment of how closely the measured results reflect the actual concentration or distribution of the constituent concentrations in the matrix sampled. The sampling plan design, sample collection techniques, sample handling protocols, sample analysis methods, and data review procedures have been developed to ensure that the results obtained are representative of site conditions. Representativeness also will be determined by evaluating holding times, sample preservation, and blank contamination. Samples with expired holding times, improper preservation, or blank contamination may not be representative.

8.1.4 Completeness

Completeness, defined as the number of acceptable data points relative to the total number of data points, will be assessed for all samples within a given media (i.e., soil). The QA/QC objective for



completeness for all components of this project is 95 percent. Data that were qualified as estimated because the QA/QC criteria were not met will be considered valid for the purpose of assessing completeness. Data that have been qualified as estimated will be further reviewed for usability. For this investigation, the primary use of the data is to address the remedial investigation objectives. Data that were qualified as rejected will not be considered valid for the purpose of assessing completeness. If a sample medium has an unacceptable completeness percentage after comparison to the individual data quality objectives described above, original samples will be re-analyzed if sufficient sample volume is available, archived samples will be analyzed if appropriate, or additional samples will be collected during the remedial investigation.

8.1.5 Comparability

Comparability is a qualitative parameter expressing the confidence with which one dataset can be compared to another. In order to ensure results are comparable, samples will be analyzed using standard EPA or Ecology methods and protocols. Calibration and reference standards will be traceable to certified standards, and standard data reporting formats will be employed. Data will also be reviewed to verify that precision and accuracy criteria were achieved and, if not, that data were appropriately qualified.

8.2 DATA QUALITY CONTROL

Data will undergo two levels of QA/QC evaluation: one by the laboratory and one by Farallon. Initial data reduction, evaluation, and reporting will be performed by the laboratory, as specified in the laboratory Quality Assurance Manual. The analytical data will then be validated by Farallon under the supervision of the Project Data Manager. The following types of QC information will be reviewed, as appropriate:

- Method deviations;
- Sample extraction and hold times;
- Method reporting limits;
- Blank samples (e.g., equipment rinsate, trip, and laboratory method);
- Field duplicate samples;



- RPD (for precision);
- MS/MSD samples (for accuracy);
- Surrogate recoveries; and
- Percent completeness.

Farallon will review field records and the results of field observations and measurements to ensure that procedures were properly performed and documented. Field procedures will be reviewed for the following elements:

- Completeness and legibility of field logs;
- Preparation and frequency of field QC samples;
- Field equipment calibration and maintenance; and
- Chain of Custody forms.

8.3 LABORATORY DATA PACKAGE REQUIREMENTS

Laboratory data packages will consist of a laboratory report and electronic data deliverable. Laboratory reports will include the following elements:

- Case narrative;
- Analytical notes;
- QC narrative;
- Sample inventory report;
- Analytical results; and
- Data qualifiers and abbreviations.

The electronic data deliverable will include at a minimum:

- Sample identification information;
- Sample media;
- Sampling, laboratory receiving, extraction, and analysis dates;
- Analyte and Chemical Abstracts Service Reference No.;
- Reported concentrations and reporting units;



- Analytical method detection limits;
- Machine reporting limits and reporting units; and
- QA/QC results, including identification of MS/MSD and surrogate samples.

8.4 CORRECTIVE ACTION

Corrective action will be the joint responsibility of the Project Manager and the Project Data Manager. Corrective procedures may include:

- Identifying the source of deviation from the quality standards set forth in the SAP and its supporting documents;
- Re-analyzing soil and/or groundwater samples if hold-time criteria permit;
- Re-sampling and analyzing soil and/or groundwater if necessary to meet the quality standards set forth in this SAP;
- Evaluating and amending sampling, analytical, and/or data transfer procedures; and/or
- Qualifying data to indicate the level of uncertainty.

During field operations and sampling procedures, field team members will be responsible for identifying and correcting equipment malfunctions and documenting sampling procedures in a manner that will enable the Project Manager or the Project Data Manager to evaluate whether corrective action is warranted.

Equipment malfunctions, variances in sampling protocols, and corrective actions taken by field team members will be documented in the field notes. The Project Manager or the Project Data Manager will evaluate the field notes upon submittal to determine whether the corrective action taken was adequate to meet project quality standards or whether additional corrective action is required.

8.5 DATA MANAGEMENT

The final repository for sample analytical information will be an EQUIS database. The electronic data deliverables received from the laboratories will be directly transferred into the EQUIS database, reducing the likelihood of data entry errors. The Project Data Manager will manage and maintain the EQUIS database.



Farallon will directly transfer the analytical data provided by the laboratory into the Ecology Environmental Information Management System, thus eliminating the likelihood of data entry errors inherent with manual data entry.

Field measurements and other data requiring manual entry will be reviewed by Farallon personnel other than the data entry staff prior to submission to the Environmental Information Management System. Ecology's confirmation of receipt of the data will be maintained in Farallon project files.

8.6 DATA VALIDATION

Farallon will conduct a Stage 2B Verification and Validation on all the analytical data.

All chemical data will be reviewed with regard to the following:

- Chain-of-custody documentation;
- Sample preservation and holding times;
- Method blanks;
- Reporting limits;
- Surrogate recoveries;
- MS/MSD recoveries;
- LCS recoveries;
- Laboratory and field duplicate RPDs;
- Instrument calibration data;
- Number and concentration of initial calibration standards;
- Method specific instrument performance checks; and
- Frequency of instrument QC samples.



Data validation will be based on the QA/QC criteria as recommended in the methods identified in this SAP and in the *National Functional Guidelines for Organic and/or Inorganic Methods Data Review* (EPA 2017a, 2017b).

Data usability, conformance with the QA/QC objectives, and any deviations that may have affected the quality of the data, as well as the basis of application of qualifiers, will be included in the final reporting of the data. Any required corrective actions based on the evaluation of the analytical data will be determined by the laboratory in consultation with the Farallon Project Manager and may include qualification or rejection of the data.



9.0 REFERENCES

U.S. Environmental Protection Agency (EPA). 2009. *Guidance for Labelling Externally Validated Laboratory Analytical Data for Superfund Use*. Administrative Record EPA 540-R-08-005. January.

———. 2017a. *National Functional Guidelines for Organic Superfund Methods Data Review*. EPA Administrative Record EPA-540-R-2017-002. January.

———. 2017b. *National Functional Guidelines for Organic Superfund Methods Data Review*. EPA Administrative Record EPA-540-R-2017-001. January.

Washington Department of Ecology (Ecology). 2004. *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*. Publication No. 04-03-030. Revised December 2016. July.



10.0 LIMITATIONS

10.1 GENERAL LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- **Accuracy of Information.** Farallon obtained, reviewed, and evaluated certain information used in this report/assessment from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

For the foregoing reasons, Farallon cannot and does not warrant or guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of the report.

This report/assessment has been prepared in accordance with the contract for services between Farallon and Block 79 LLC, and currently accepted industry standards. No other warranties, representations, or certifications are made.



10.2 LIMITATION ON RELIANCE BY THIRD PARTIES

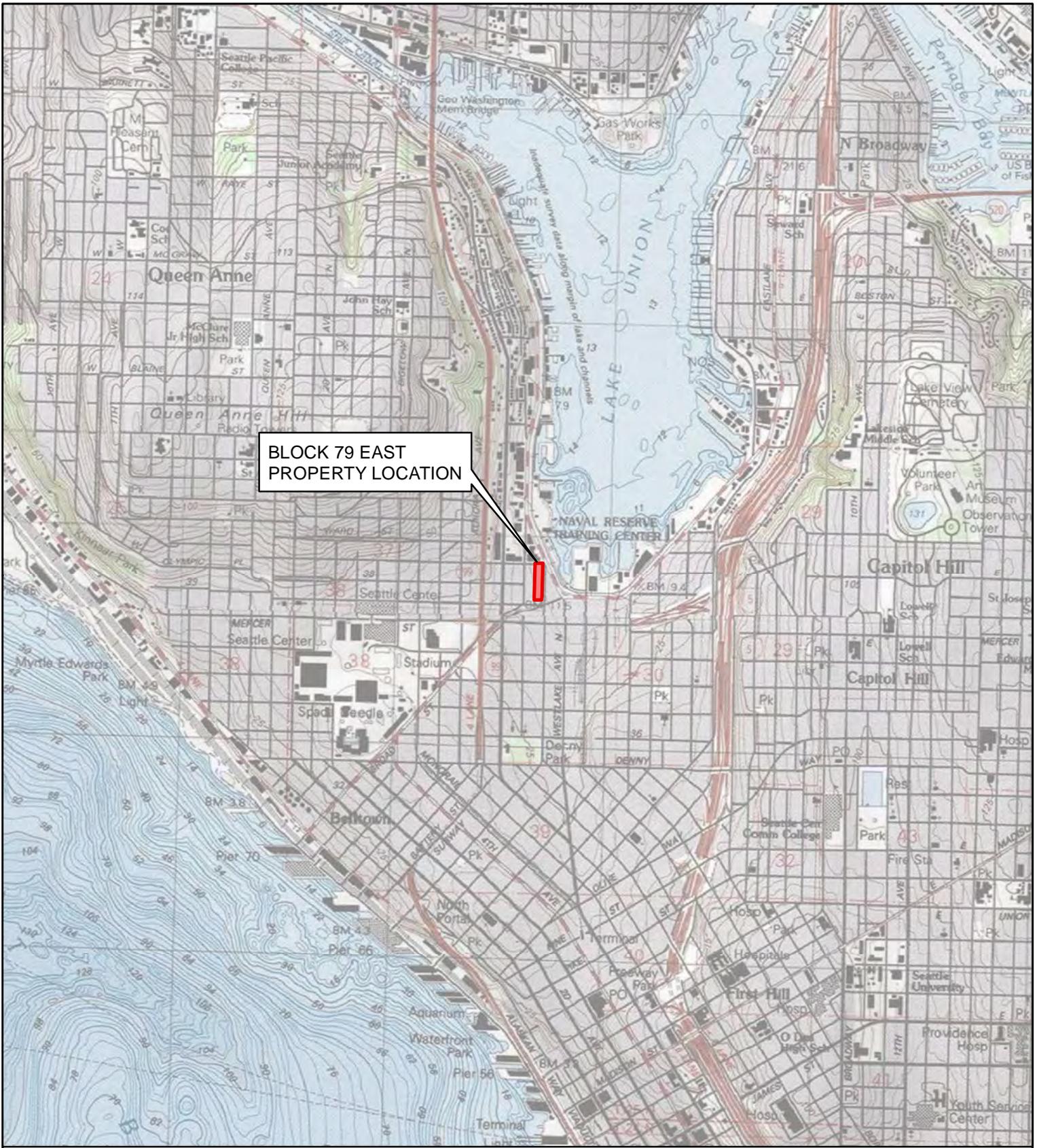
Reliance by third parties is prohibited. This report/assessment has been prepared for the exclusive use of Block 79 LLC to address the unique needs of Block 79 LLC at the Block 79 East Site at a specific point in time.

This is not a general grant of reliance. No one other than Block 79 LLC may rely on this report unless Farallon agrees in advance to such reliance in writing. Any unauthorized use, interpretation, or reliance on this report/assessment is at the sole risk of that party and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

FIGURES

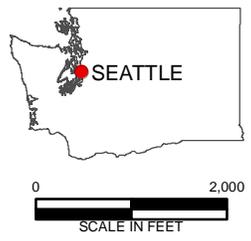
SAMPLING AND ANALYSIS PLAN
Block 79 East Site
701, 739, And 753 9th Avenue North
Seattle, Washington

Farallon PN: 397-035



BLOCK 79 EAST
PROPERTY LOCATION

REFERENCE: 7.5 MINUTE USGS QUADRANGLE SEATTLE NORTH, WASHINGTON, DATED 1983



Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Baker City

California
Oakland | Irvine

FARALLON
CONSULTING

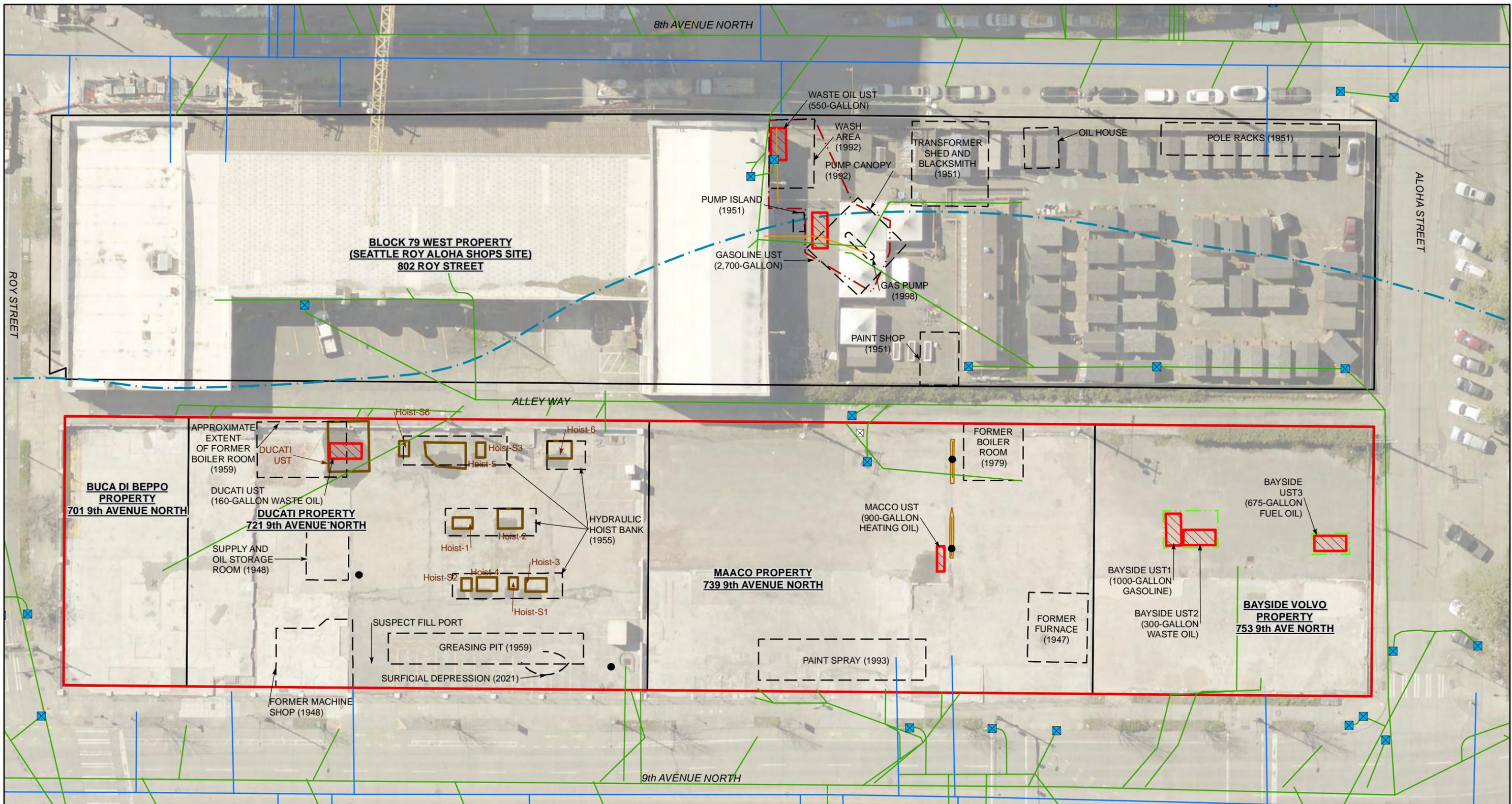
Your Challenges. Our Priority. | farallonconsulting.com

FIGURE E-1

**BLOCK 79 EAST PROPERTY
VICINITY MAP**

701, 709, 739, AND 753
9th AVENUE NORTH
SEATTLE, WASHINGTON

FARALLON PN: 397-035



LEGEND

- ☒ CATCH BASIN
- ☒ OIL-WATER SEPARATOR
- FLOOR DRAIN
- ⊙ FILL PORT
- ~ APPROXIMATE HISTORICAL LAKE UNION SHORELINE (1909)
- ZIP DRAIN
- WATER LINE
- SEWER
- PRODUCT LINE
- EXCAVATION EXTENT (2021)
- EXCAVATION EXTENT (1992)
- EXCAVATION EXTENT (1993)
- ▨ FORMER UNDERGROUND STORAGE TANK (UST)
- ▭ FORMER BUILDING FEATURE
- ▭ APPROXIMATE BLOCK 79 EAST PROPERTY BOUNDARY
- ▭ KING COUNTY PARCEL BOUNDARY



NOTES:
BGS = BELOW GROUND SURFACE
ALL LOCATIONS ARE APPROXIMATE.
FIGURES WERE PRODUCED IN COLOR.
GRAYSCALE COPIES MAY NOT REPRODUCE
ALL ORIGINAL INFORMATION.

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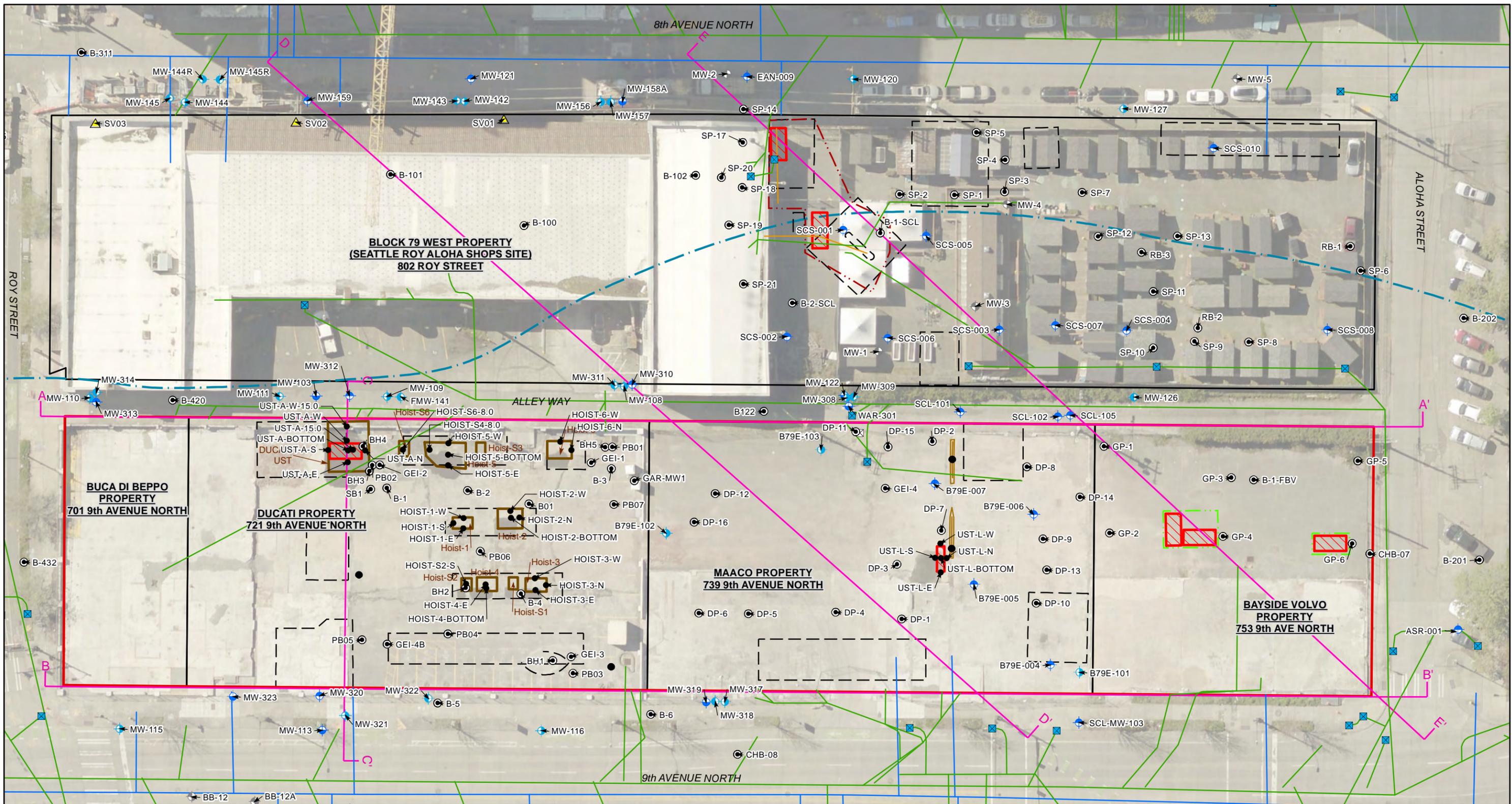
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FIGURE E-2A

BLOCK 79 EAST PROPERTY PLAN AND HISTORICAL FEATURES
701, 709, 739, AND 753 9th AVENUE NORTH
SEATTLE, WASHINGTON

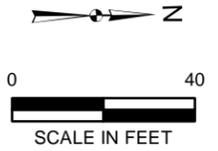
FARALLON PN: 397-035



LEGEND

- EXCAVATION SOIL SAMPLE (FARALLON, 2021)
- ⊕ DECOMMISSIONED MONITORING WELL
- ⊕ INTERMEDIATE "A" WATER-BEARING ZONE WELL
- ⊕ INTERMEDIATE "B" WATER-BEARING ZONE WELL
- ⊕ SHALLOW WATER-BEARING ZONE WELL
- ⊕ DEEP WATER-BEARING ZONE WELL
- ⊙ BORING
- ▲ SOIL VAPOR MONITORING POINT
- ⊕ CATCH BASIN
- ⊕ OIL-WATER SEPARATOR
- FLOOR DRAIN
- ⊙ FILL PORT
- APPROXIMATE HISTORICAL LAKE UNION SHORELINE (1909)
- ZIP DRAIN
- WATER LINE
- DRAINAGE AND WASTEWATER LINE
- PRODUCT LINE

- CROSS-SECTION LINE
- EXCAVATION EXTENT (2021)
- EXCAVATION EXTENT (1992)
- EXCAVATION EXTENT (1993)
- FORMER UNDERGROUND STORAGE TANK (UST)
- FORMER BUILDING FEATURE
- APPROXIMATE BLOCK 79 EAST PROPERTY BOUNDARY
- KING COUNTY PARCEL BOUNDARY



NOTES:
 BGS = BELOW GROUND SURFACE
 ALL LOCATIONS ARE APPROXIMATE.
 FIGURES WERE PRODUCED IN COLOR.
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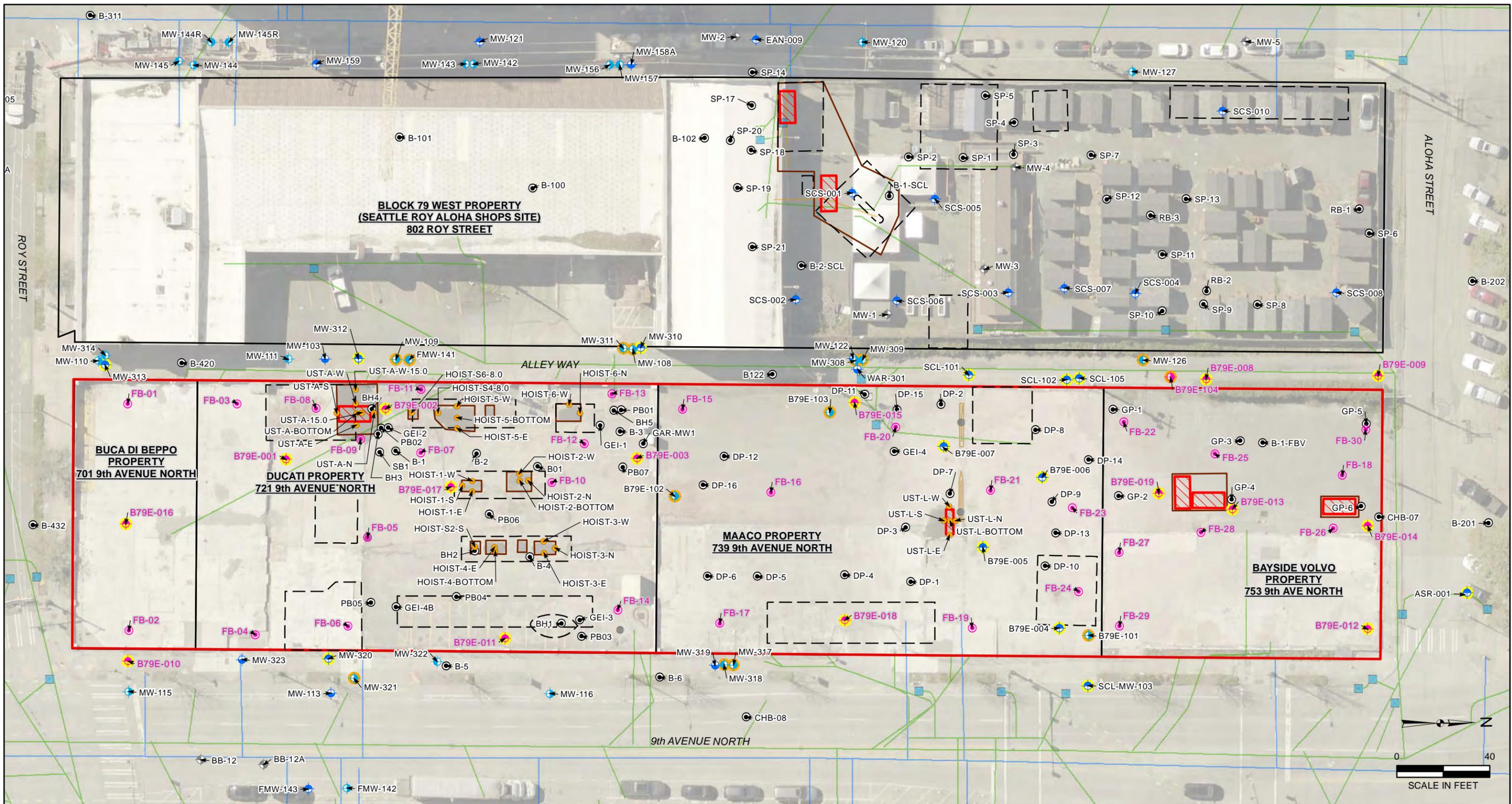
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FIGURE E-2B

**BLOCK 79 EAST PROPERTY PLAN
AND HISTORICAL FEATURES**
 701, 709, 739, AND 753 9th AVENUE NORTH
 SEATTLE, WASHINGTON



LEGEND

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> PROPOSED SHALLOW WATER-BEARING ZONE WELL PROPOSED INTERMEDIATE "A" WATER-BEARING ZONE WELL PROPOSED BORING EXCAVATION SOIL SAMPLE (FARALLON, 2021) BORING SHALLOW WATER-BEARING ZONE WELL INTERMEDIATE "A" WATER-BEARING ZONE WELL INTERMEDIATE "B" WATER-BEARING ZONE WELL | <ul style="list-style-type: none"> DEEP WATER-BEARING ZONE WELL DECOMMISSIONED MONITORING WELL MONITORING WELLS TO BE SAMPLED SHALLOW WATER-BEARING ZONE INTERMEDIATE WATER-BEARING ZONE WATER LINE ZIP DRAIN SEWER PRODUCT LINE | <ul style="list-style-type: none"> FORMER BUILDING FEATURE EXCAVATION EXTENT (2021) FORMER UNDERGROUND STORAGE TANK (UST) APPROXIMATE BLOCK 79 EAST PROPERTY BOUNDARY KING COUNTY PARCEL BOUNDARY |
|--|--|---|

NOTES:
 1. ALL LOCATIONS ARE APPROXIMATE.
 2. FIGURES WERE PRODUCED IN COLOR.
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FIGURE E-3

PROPOSED EXPLORATION PLAN
 BLOCK 79 EAST PROPERTY
 701, 709, 739, AND 753 9th AVENUE NORTH
 SEATTLE, WASHINGTON

FARALLON PN: 397-035

TABLES

SAMPLING AND ANALYSIS PLAN Block 79 East Site 701, 739, And 753 9th Avenue North Seattle, Washington

Farallon PN: 397-035

**Table E-1
Proposed Soil Scope of Work
Block 79 East Site
Seattle, Washington
Farallon PN: 397-035**

Location	Proposed Scope	Proposed Locations	Analyte and Analytical Method				
			GRO	DRO/ORO	VOCs ¹	Metals	PAHs/cPAHs Naphthalenes
			NWTPH-Gx	NWTPH-Dx	EPA 8260	EPA Series 200/6000/7000	EPA 8270
Block 79 East Property, multiple locations.	Evaluate the lateral and vertical extent of historical regional fill impacts.	FB-01, FB-02, FB-03, FB-04, FB-05, FB-06, FB-09, FB-10, FB-13, FB-14, FB-15, FB-16, FB-17, FB-19, FB-20, FB-21, FB-22, FB-23, FB-24, FB-25, FB-26, FB-27, FB-28, FB-29, FB-30, B79E-001, B79E-003, B79E-011, B79E-012, B79E-016, B79E-018			X	X	X
Ducati Property	Evaluate the lateral and vertical extent of contamination in soil in the vicinity of the former hydraulic hoists and Ducati UST -- 11 locations.	FB-07, FB-11, B79E-002, B79E-017	X	X	X	X	X
Ducati and Maaco Properties	Evaluate the lateral and vertical extent of GRO, DRO and BTEX previously identified at borings DP-7, DP-9, and DP-12 on the Maaco Property, and borings PB01, BH5, and GAR-MW1 on the Ducati Property.	FB-12, FB-13, FB-15, FB-16, FB-21, FB-23, B79E-003	X	X	X	X	X
Ducati Property	Evaluate the lateral and vertical extent of contamination in soil related to the Former Ducati Waste Oil UST.	FB-07, FB-08, FB-09, FB-11, B79E-001, B79E-002	X	X	X	X	X
Maaco and Bayside Volvo Properties	Evaluate the lateral extent of Aloha Shops Plume impacts in soil on the Block 79 East Property, and evaluate potential releases at the Bayside Volvo USTS	FB-18, FB-20, FB-21, FB-22, FB-23, FB-24, FB-25, FB-26, FB-27, FB-28, FB-29, FB-30, B79E-008, B79E-009, B79E-012, B79E-013, B79E-014, B79E-019	X	X	X	X	X

NOTES:

¹Analysis for full scan VOCs, BTEX, CVOCs, and/or fuel additives as appropriate.

BTEX = benzene, toluene, ethylbenzene, and xylenes
cPAH = carcinogenic polycyclic aromatic hydrocarbons
CVOC = chlorinated volatile organic compound
DRO = total petroleum hydrocarbons (TPH) and diesel-range organics
EPA = U.S. Environmental Protection Agency
GRO = TPH as gasoline-range organics

ORO = TPH as oil-range organics
PAH = polycyclic aromatic hydrocarbon
UST = underground storage tank
VOC = volatile organic compound

**Table E-2
Proposed Groundwater Scope of Work
Block 79 East Site
Seattle, Washington
Farallon PN: 397-035**

Location	Proposed Scope	Locations	Analytes and Analytical Methods				
			NWTPH-Gx	NWTPH-Dx	EPA 8260	EPA Series 200/6000/7000	EPA 8270
			GRO	DRO/ORO	VOCs ¹	Metals	PAHs/cPAHs Naphthalenes
Block 79 East Shallow Water-Bearing Zone	Evaluate the groundwater flow conditions quarterly on the Block 79 East Property, alley ROW, and 9th Avenue North ROW.	Existing Shallow Locations: B79E-004, B79E-005, B79E-006, B79E-007, MW-310, MW-312, MW-313, SCL-101, SCL-102, SCL-103, SCL-105, ASR-001, MW-320 New Shallow Locations: B79E-001, B79E-002, B79E-003, B79E-008, B79E-009, B79E-010, B79E-011, B79E-012, B79E-013, B79E-014, B79E-015, B79E-016, B79E-017, B79E-018, B79E-019					
Block 79 East Shallow Water-Bearing Zone	Evaluate the presence and/or extent of COPCs in the Shallow Water-Bearing Zone on the downgradient block 79 East Property boundary.	Existing Shallow Locations: B79E-004, MW-320, SCL-103 New Shallow Locations: B79E-010, B79E-011, B79E-012, B79E-014, B79E-018	X	X	X	X	X
Bucca di Beppo Property Shallow Water-Bearing Zone	Further refine the nature and extent of COCs in shallow groundwater.	Existing Locations: MW-312, MW-313, MW-320 New Shallow Locations: B79E-001, B79E-010, B79E-016	X	X	X	X	X
Ducati Property Shallow Water-Bearing Zone	Further evaluate the nature and extent of COPCs related to the previously confirmed release of waste oil associated with the Ducati Waste Oil UST. Evaluate potential impacts associated with localized releases at Hoist-1-W and GAR-MW1.	Existing Locations: MW-320 New Shallow Locations: B79E-001, B79E-002, B79E-003, B79E-011, B79E-017	X	X	X	X	X
Bayside Volvo Shallow Water-Bearing Zone	Further refine the nature and extent of COPCs related to the previously confirmed release from the Bayside Volvo USTs. Evaluate potential groundwater impacts.	New Shallow Locations: B79E-013, B79E-014, B79E-019	X	X	X	X	X
Maaco Property and Bayside Volvo Property Shallow Water-Bearing Zone	Evaluate the extent of COPCs related to the Aloha Shops Plume in the Shallow Water-Bearing Zone upgradient of the Block 79 East Property.	Existing Shallow Locations: B79E-004, B79E-005, B79E-006, B79E-007, SCL-101, SCL-102, SCL-105, ASR-001, New Shallow Locations: B79E-008, B79E-009, B79E-012, B79E-013, B79E-014, B79E-015, B79E-019	X	X	X	X	X

**Table E-2
Proposed Groundwater Scope of Work
Block 79 East Site
Seattle, Washington
Farallon PN: 397-035**

Location	Proposed Scope	Locations	GRO	DRO/ORO	VOCs ¹	Metals	PAHs/cPAHs Naphthalenes
Maaco, Bayside Volvo Property Intermediate Water-Bearing Zone ³	Further evaluate the pathway and migration of benzene and vinyl chloride in the Intermediate Water-Bearing Zone detected at monitoring well B79E-102.	Existing Intermediate Locations: B79E-101, B79E-102, MW-108, MW-126, MW-308, MW-309, MW-311, MW-317, MW-318, B79E-103 New Intermediate Locations: B79E-104	X	X	X		X
Intermediate Water-Bearing Zone ³	Evaluate the migration of benzene and potentially petroleum hydrocarbons in the Intermediate Water-Bearing Zone as it relates to the Shallow Water-Bearing Zone on the Ducati Property.	Existing Intermediate Locations: MW-109, MW-111, MW-116, FMW-141, MW-321, MW-322			X		

NOTES:

¹Includes CVOCs, BTEX, and fuel additives as appropriate.

²Select locations to be identified in consultation with the Washington State Department of Ecology.

³Evaluation of the Intermediate Water-Bearing Zone will be performed as necessary to fully evaluate the nature and extent of the Block 79 East Site. Intermediate Water-Bearing Zone sampling will be performed as appropriate to vertically bound, or evaluate migration of, COPCs confirmed in the Shallow Water-Bearing Zone.

BTEX = benzene, toluene, ethylbenzene, and xylenes
COC = constituent of concern
CVOC = chlorinated volatile organic compound
DRO = total petroleum hydrocarbons (TPH) and diesel-range organics
EPA = U.S. Environmental Protection Agency
GRO = TPH as gasoline-range organics
ORO = TPH as oil-range organics
PAH = polycyclic aromatic hydrocarbon
ROW = right of way
UST = underground storage tank
VOC = volatile organic compound

**Table E-3
Screening Levels
Block 79 East Site
Seattle, Washington
Farallon PN: 397-035**

Chemical	Proposed Soil Screening Level (mg/kg)		Proposed Groundwater Screening Level (µg/l)
	Vadose Zone	Saturated Zone	
Petroleum Hydrocarbons			
TPH, gasoline-range organics	30	30	800
TPH, diesel-range organics	2,000	2,000	500
TPH, oil-range organics	2,000	2,000	500
TPH, diesel- and oil-range organics	2,000	2,000	500
Volatile Organic Compounds			
Benzene	0.0024	0.001	0.44
Toluene	0.37	0.023	53
Ethylbenzene	0.10	0.0059	12
Xylenes	0.51	0.03	57
Tetrachloroethene	0.024	0.0013	2.4
Trichloroethene	0.0019	0.001	0.3
cis-1,2-Dichloroethene	0.079	0.0052	16
Vinyl Chloride	0.00012	0.001	0.20

**Table E-3
Screening Levels
Block 79 East Site
Seattle, Washington
Farallon PN: 397-035**

Chemical	Proposed Soil Screening Level (mg/kg)		Proposed Groundwater Screening Level (µg/l)
	Vadose Zone	Saturated Zone	
Polycyclic Aromatic Hydrocarbons (PAHs)			
Naphthalene	4.5	0.24	8.9
1-Methylnaphthalene	0.082	0.0067	1.5
2-Methylnaphthalene	1.7	0.089	32
Acenaphthene	3.1	0.16	30
Anthracene	47	2.4	100
Fluoranthene	0.020	0.0067	0.10
Fluorene	1.6	0.080	10
Pyrene	0.020	0.0067	0.10

**Table E-3
Screening Levels
Block 79 East Site
Seattle, Washington
Farallon PN: 397-035**

Chemical	Proposed Soil Screening Level (mg/kg)		Proposed Groundwater Screening Level (µg/l)
	Vadose Zone	Saturated Zone	
Carcinogenic PAHs			
Benzo(a)anthracene	cPAH TEC	cPAH TEC	0.010
Benzo(b)fluoranthene	cPAH TEC	cPAH TEC	0.010
Benzo(k)fluoranthene	cPAH TEC	cPAH TEC	0.010
Benzo(j,k)Fluoranthene	cPAH TEC	cPAH TEC	NE
Benzo(a)pyrene	cPAH TEC	cPAH TEC	0.010
Chrysene	cPAH TEC	cPAH TEC	0.010
Dibenzo(a,h)Anthracene	cPAH TEC	cPAH TEC	0.010
Indeno(1,2,3-cd)Pyrene	cPAH TEC	cPAH TEC	0.010
Total cPAHs TEC ^{3,4}	0.084	0.010	0.015

**Table E-3
Screening Levels
Block 79 East Site
Seattle, Washington
Farallon PN: 397-035**

Chemical	Proposed Soil Screening Level (mg/kg)		Proposed Groundwater Screening Level (µg/l)
	Vadose Zone	Saturated Zone	
Metals			
Arsenic	7.3	7.3	8.0
Barium	820	41	1,000
Cadmium	0.77	0.77	0.72
Chromium	1,500	74	74
Lead	250	21	2.1
Mercury	0.07	0.07	0.13
Selenium	0.52	0.50	5.0
Silver	0.55	0.10	3.2

Notes:

cPAH = carcinogenic polycyclic aromatic hydrocarbons

mg/kg = milligrams per kilogram

µg/l = micrograms per liter

NE = not established

TEC = toxic equivalency concentration

TPH = total petroleum hydrocarbons

Table E-4
Sample Containers, Preservatives, and Holding Times
Block 79 East Site
Seattle, Washington
Farallon PN: 397-035

Parameter	Analytical Method	Container Size and Type	Holding Time	Sample Preservation Technique
Soil				
Gasoline-range organics	NWTPH-Gx	(1) 40-ml glass pre-weighed VOA vial without a stir bar (5 gram soil sample)	48 hours to freeze; 14 days to analyze	Cool to 4°C ±2°C in field; freeze ≤ 0°C in laboratory
Diesel-range organics	NWTPH-Dx	(1) 4-oz CWM Jar	14 days to extract, 40 days to analyze after extraction	Cool to 4°C ±2°C
Oil-range organics				
BTEX	EPA 8260D	(2) 40-ml glass pre-weighed VOA vial with stir bar (5 gram soil sample), and (1) 40-ml glass pre-weighed VOA vial without a stir bar (5 gram soil sample)	48 hours to freeze; 14 days to analyze	Cool to 4°C ±2°C in field; freeze ≤ 0°C in laboratory
Tetrachloroethene				
Trichloroethene				
cis-1,2-Dichloroethene				
Vinyl Chloride				
Acenaphthene	EPA 8270E-SIM	(1) 4-oz CWM Jar	14 days to extract, 40 days to analyze after extraction	Cool to 4°C ±2°C
Benzo(a)pyrene				
Benzo(a)fluoranthene				
Fluoranthene				
Fluorene				
Pyrene				
Naphthalene				
1-Methylnaphthalene				
2-Methylnaphthalene				
Anthracene				
Benzo(g,h,i)Perylene				
Phenanthrene				
Arsenic				
Barium				
Cadmium				
Chromium				
Lead				
Mercury				
Selenium				
Silver				

Table E-4
Sample Containers, Preservatives, and Holding Times
Block 79 East Site
Seattle, Washington
Farallon PN: 397-035

Parameter	Analytical Method	Container Size and Type	Holding Time	Sample Preservation Technique
Groundwater				
Gasoline-range Organics	NWTPH-Gx	(3) 40-ml glass VOA vials with Teflon septum	14 days to analyze	Preserve with HCl to pH <2; Cool to 4°C ±2°C
Diesel-range Organics	NWTPH-Dx	(2) 500-ml amber	14 days to extract, 40 days to analyze after extraction	Preserve with HCl to pH <2; Cool to 4°C ±2°C
Oil-range Organics				
BTEX	EPA 8260D	(3) 40-ml glass VOA vials with Teflon septum	14 days to analyze	Preserve with HCl to pH <2; Cool to 4°C ±2°C
Tetrachloroethene				
Trichloroethene				
cis-1,2-Dichloroethene				
Vinyl Chloride				
Naphthalene	EPA 8270E-SIM	(2) 1-liter amber	7 days to extract, 40 days to analyze after extraction	Cool to 4°C ±2°C
Fluoranthene				
Fluorene				
Pyrene				
Benzo(a)pyrene				
Benzo(b)fluoranthene				
Benzopyrene				
Chrysene				
Arsenic	EPA Series 200/6000/7000	(1) 500 ml HDPE with HNO ₃ pH<2, (1) 500 ml HDPE unpreserved for mercury	6 months to analyze, 28 days to analyze for mercury	Cool to 4°C ±2°C
Barium				
Cadmium				
Lead				
Mercury				
Selenium				
Silver				

NOTES:

BTEX = benzene, toluene, ethylbenzene, xylenes

°C = degrees Celsius

CWM = clear wide-mouth

EPA = U.S. Environmental Protection Agency

HCl = hydrochloric acid

HDPE = high-density polyethylene

HNO₃ = nitric acid

ml = milliliter

oz = ounce

Table E-5
Soil and Groundwater Laboratory Reporting Limits and Quality Objectives
Block 79 East Property
Seattle, Washington
Farallon PN: 397-035

Parameter	Analytical Method	Soil PQL ¹ (mg/kg)	Groundwater PQL (µg/l)	Precision (Duplicates)		Accuracy: Recovery Limits		Completeness
				Soil	Groundwater	Soil	Groundwater	
Total Petroleum Hydrocarbons								
Gasoline-range Organics	NWTPH-Gx	5.0	100	± 30% RPD	± 30% RPD	68-129% R	71-111% R	95%
Diesel-range Organics	NWTPH-Dx	25	250	Varies (see lab report)		50-150% R	50-150% R	95%
Oil-range Organics	NWTPH-Dx	50	400	Varies (see lab report)		50-150% R	50-150% R	95%
Volatile Organic Compounds								
Benzene	EPA 8260D	0.001	0.20	± 26% RPD	± 15% RPD	63-122% R	76-118% R	95%
Toluene	EPA 8260D	0.005	1.00	± 26% RPD	± 19% RPD	66-128% R	80-120% R	95%
Ethylbenzene	EPA 8260D	0.001	0.20	± 26% RPD	± 19% RPD	66-128% R	80-120% R	95%
Xylenes	EPA 8260D	0.003	0.60	± 26% RPD	± 19% RPD	66-128% R	80-120% R	95%
Tetrachloroethene	EPA 8260D	0.001	0.20	± 24% RPD	± 17% RPD	61-124% R	79-129% R	95%
Trichloroethene	EPA 8260D	0.001	0.20	± 24% RPD	± 17% RPD	61-124% R	79-129% R	95%
cis-1,2-Dichloroethene	EPA 8260D	0.001	0.20	± 24% RPD	± 17% RPD	61-124% R	79-129% R	95%
Vinyl Chloride	EPA 8260D	0.001	0.20	± 24% RPD	± 17% RPD	61-124% R	79-129% R	95%

Table E-5
Soil and Groundwater Laboratory Reporting Limits and Quality Objectives
Block 79 East Property
Seattle, Washington
Farallon PN: 397-035

Parameter	Analytical Method	Soil PQL ¹ (mg/kg)	Groundwater PQL (µg/l)	Precision (Duplicates)		Accuracy: Recovery Limits		Completeness
				Soil	Groundwater	Soil	Groundwater	
Polycyclic Aromatic Hydrocarbons								
1-Methylnaphthalene	EPA 8270E-SIM	0.0067	0.10	± 28% RPD	± 37% RPD	35-114% R	46-99% R	95%
2-Methylnaphthalene	EPA 8270E-SIM	0.0067	0.10	± 28% RPD	± 37% RPD	35-114% R	46-99% R	95%
Acenaphthene	EPA 8270E-SIM	0.0067	0.10	± 28% RPD	± 37% RPD	35-114% R	46-99% R	95%
Anthracene	EPA 8270E-SIM	0.0067	0.010	± 34% RPD	± 25% RPD	32-128% R	50-131% R	95%
Benzo(a)pyrene	EPA 8270E-SIM	0.0067	0.010	± 31% RPD	± 26% RPD	28-133% R	58-132% R	95%
Benzo(b)fluoranthene	EPA 8270E-SIM	0.0067	0.010	± 33% RPD	± 27% RPD	30-122% R	56-124% R	95%
Benzo(g,h,i)Perylene	EPA 8270E-SIM	0.0067	0.010	± 31% RPD	± 31% RPD	26-122% R	62-121% R	95%
Benzofluoranthenes	EPA 8270E-SIM	0.0067	0.010	± 31% RPD	± 25% RPD	27-124% R	63-113% R	95%
Benzopyrene	EPA 8270E-SIM	0.0067	0.010	± 33% RPD	± 26% RPD	35-115% R	61-115% R	95%
Chrysene	EPA 8270E-SIM	0.0067	0.010	± 30% RPD	± 26% RPD	30-118% R	60-120% R	95%
Fluoranthene	EPA 8270E-SIM	0.0067	0.010	± 30% RPD	± 26% RPD	30-118% R	60-120% R	95%
Fluorene	EPA 8270E-SIM	0.0067	0.010	± 30% RPD	± 26% RPD	30-118% R	60-120% R	95%
Naphthalene	EPA 8270E-SIM	0.0067	0.010	± 30% RPD	± 26% RPD	30-118% R	60-120% R	95%
Phenathrene	EPA 8270E-SIM	0.0067	0.010	± 30% RPD	± 26% RPD	30-118% R	60-120% R	95%
Pyrene	EPA 8270E-SIM	0.0067	0.010	± 30% RPD	± 26% RPD	30-118% R	60-120% R	95%

Table E-5
Soil and Groundwater Laboratory Reporting Limits and Quality Objectives
Block 79 East Property
Seattle, Washington
Farallon PN: 397-035

Parameter	Analytical Method	Soil PQL ¹ (mg/kg)	Groundwater PQL (µg/l)	Precision (Duplicates)		Accuracy: Recovery Limits		Completeness
				Soil	Groundwater	Soil	Groundwater	
RCRA Metals								
Arsenic	EPA 200/6000/7000	0.13	0.50	± 20% RPD	± 20% RPD	75-125% R	75-125% R	95%
Barium	EPA 200/6000/7000	0.12	0.50	± 20% RPD	± 20% RPD	75-125% R	75-125% R	95%
Cadmium	EPA 200/6000/7000	0.1	0.10	± 20% RPD	± 20% RPD	75-125% R	75-125% R	95%
Chromium	EPA 200/6000/7000	0.13	0.50	± 20% RPD	± 20% RPD	75-125% R	75-125% R	95%
Lead	EPA 200/6000/7000	0.13	0.40	± 20% RPD	± 20% RPD	75-125% R	75-125% R	95%
Mercury	EPA 200/6000/7000	0.025	0.13	± 20% RPD	± 20% RPD	75-125% R	75-125% R	95%
Selenium	EPA 200/6000/7000	0.5	1.0	± 20% RPD	± 20% RPD	75-125% R	75-125% R	95%
Silver	EPA 200/6000/7000	0.10	1.0	± 20% RPD	± 20% RPD	75-125% R	75-125% R	95%

NOTES:

¹ The MRL for project samples will vary with moisture content of the samples.

EPA = U.S. Environmental Protection Agency

mg/kg = milligrams per kilogram

µg/l = micrograms per liter

PQL = practical quantitation limit

R = Recovery

RCRA = Resource Conservation and Recovery

RPD = relative percent difference

APPENDIX A
STANDARD OPERATING PROCEDURES

SAMPLING AND ANALYSIS PLAN
Block 79 East Site
701, 739, And 753 9th Avenue North
Seattle, Washington

Farallon PN: 397-035

STANDARD OPERATING PROCEDURE EQ-01

EQUIPMENT DECONTAMINATION PROCEDURES

PURPOSE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to provide field personnel with the methodology for decontaminating sampling equipment during various field activities. The step-by-step guidelines provided in this SOP are to be followed by the field crew during all site visits, as applicable.

EQUIPMENT AND SUPPLIES/REAGENTS

The following equipment is necessary to properly decontaminate field equipment during various field tasks:

- Rinse water or distilled water.
- Deionized water.
- Liquinox or other phosphate-free detergent.
- Paper towels.
- Labeled squirt bottles.
- Long-handled hard-bristle brushes (for sediment and soil).
- Cotton swabs.
- Plastic sheeting, garbage bags, and aluminum foil (for sediment and soil).
- Core liner caps or plastic wrap and rubber bands (for sediment and soil).
- Extension arm for cleaning core liners (for sediment and soil).
- Plastic 5-gallon bucket.
- U.S. Department of Transportation-approved drum(s) for decontamination water unless other water-handling arrangements have been made. Separate drums are needed for liquid and solid wastes (see Farallon SOP WM-01, Field-Handling of Investigation-Derived Waste). Liquid wastes should not be added to drums containing solid wastes.

Dilute Liquinox with distilled water in a squirt bottle in accordance with the instructions on the Liquinox package, and label the bottle. Fill another squirt bottle with distilled water, and label the bottle.



FIELD EQUIPMENT TO BE DECONTAMINATED AFTER USE

Decontaminate the following field equipment at the conclusion of field work each day, in accordance with the procedures outlined in this SOP:

- Water-level meter.
- Horiba/YSI multiparameter probe.
- Bladder pump.
- Submersible pump.
- Sediment and soil collection and processing equipment.

WATER-LEVEL METER DECONTAMINATION

Decontaminate the water-level meter after measuring the water level at a monitoring well before moving to a new monitoring well, using the following procedures:

- Spray the bottom half of a paper towel with the diluted Liquinox solution, and the upper half with deionized water.
- Grip the measuring tape of the water-level meter with the paper towel in one hand with the Liquinox side down toward the monitoring well casing.
- Begin slowly reeling up the water-level meter while maintaining firm contact between the measuring tape and the paper towel.
- Ensure that no debris or contamination remains on the measuring tape of the water-level meter once it has been reeled up.
- Use a clean new paper towel for each successive decontamination of the measuring tape of the water-level meter.

HORIBA/YSI MULTIPARAMETER PROBE DECONTAMINATION

Decontaminate the Horiba/YSI multiparameter probe at the end of each workday or after sampling a monitoring well with high concentrations of contamination, using the following procedures:

- Remove the multiparameter probe from the flow-through cell, and thoroughly spray each component with deionized water.
- Use a cotton swab to gently clean around each sensor probe, ensuring that all contaminated water and material has been washed away.
- Refill the protective dissolved oxygen and pH probe caps with deionized water, and replace prior to storage.
- Once the multiparameter probe has been adequately cleaned, replace the protective shield, and return the probe to the case. If the device appears to be overly wet, allow it to air-dry with the case open.



- Do not use Liquinox to clean any probes on the Horiba multiparameter probe, as it may damage the device.

BLADDER PUMP DECONTAMINATION

Decontaminate the bladder pump after sampling a well and at the end of each workday, using the following procedures:

- After extracting the bladder pump from the well, break down the pump, remove and dispose of the used bladder, and spray each component with the diluted Liquinox solution, followed by deionized water.
- Wipe away any visible contamination or debris with a paper towel.
- Capture cleaning water in a liquid waste drum for proper disposal in accordance with Farallon SOP WM-01, Field-Handling of Investigation-Derived Waste.
- Ensure that all contamination and Liquinox solution is washed off all components before reassembling the device, installing a new bladder, and moving to sample a new well.

SUBMERSIBLE PUMP DECONTAMINATION

Decontaminate the submersible pump after purging water from any well, using the following procedures:

- After extracting the submersible pump from the well, thoroughly spray down the pump with the diluted Liquinox solution, followed by deionized water.
- Wipe away any visible contamination or debris with a paper towel.
- Purge clean water through the pump and tubing to ensure that contaminated water has been cleared from all lines.
- Capture cleaning water in a liquid waste drum for proper disposal in accordance with Farallon SOP WM-01, Field-Handling of Investigation-Derived Waste.

SEDIMENT AND SOIL SAMPLING AND PROCESSING EQUIPMENT DECONTAMINATION

Decontaminate sampling equipment used to collect and process sediment and soil samples, using the following procedures:

- Place contaminated equipment and decontamination tools on plastic sheeting.
- Thoroughly rinse all used equipment with distilled water in a 5-gallon bucket to remove excess sediment or soil.
- Pour one capful of Liquinox solution into a 5-gallon bucket filled with tap water or distilled water.
- Using a long-handled hard-bristle brush, thoroughly scrub the equipment with the Liquinox solution until no sediment or soil particles remain.



- Holding the equipment over a 5-gallon bucket, double-rinse the equipment with distilled water until no Liquinox solution remains. Do not allow clean equipment to come into contact with a contaminated surface.
- Drain the equipment and place it in a clean, dry place to prevent recontamination.
- If decontaminated equipment will not be re-used immediately, wrap stainless steel equipment (e.g., bowls, spoons) in aluminum foil with the dull side facing the equipment. Seal polycarbonate core liners with core caps or cellophane plastic. Rubber-band ends to ensure a proper seal.
- After decontamination has been completed, place disposable items into a garbage bag, and store decontamination water in a drum in accordance with Farallon SOP WM-01, Field-Handling of Investigation-Derived Waste.

STANDARD OPERATING PROCEDURE (SOP) GN-02

UTILITY LOCATE

PURPOSE

The purpose of this SOP is to provide Farallon Consulting, L.L.C. (Farallon) personnel with the specific information needed to identify and locate utilities on sites where drilling or excavation activities will occur. Excavation is defined by Section 20 of Chapter 19.122 of the Revised Code of Washington (RCW 19.122.020) as “any operation, including the installation of signs, in which earth, rock, or other material on or below the ground is moved or otherwise displaced by any means.” For the purposes of this SOP, the excavation area refers to the area of an excavation or a perimeter around all proposed borings, test pits, soil gas sampling locations, and subslab soil gas sampling locations. Identifying utilities within the boundaries of a proposed excavation area prior to any digging is required by law and is necessary for the safety of Farallon personnel and contractors.

The guidelines provided in this SOP are to be followed by Farallon personnel who coordinate utility locating, mark locate boundaries, and/or observe field work that involves any type of excavation.

EQUIPMENT AND SUPPLIES

The following equipment and supplies are necessary to arrange and conduct utility locating:

- A map of the site with the proposed excavation area(s);
- Readable side sewer card figures, if applicable;
- Geographic information system (GIS) utility figures, if applicable;
- Readable American Land Title Association (ALTA) survey figures, if applicable;
- Any previous utility figures associated with the site;
- White marking products (e.g., paint, flags, stakes, grease marking pen, tape, chalk);
- Materials necessary to provide required documentation (e.g., Field Report form, camera, measuring wheel, global positioning system); and
- Personal protective equipment (PPE) as described in the site-specific Health and Safety Plan, or Level D PPE at a minimum.

PROCEDURES

The following utility locating procedures have been developed for use before excavation occurs on a site. The procedures are divided into the following five parts:

- Call Before You Dig System;
- Private Utility Locating Services;
- Hand-Clearing Proposed Excavation Areas;
- Maintaining Public Utility Locate Marks; and
- Utility Line Damage.

The Project Manager should discuss the scope of work, details of the project location, and any essential information with the project field team before any of the procedures described below commence. When practicable, an on-site kickoff meeting involving a member of the field team and the Project Manager should be conducted to discuss the work to be performed, mark the boundaries of the excavation area, and mark potential boring locations, if applicable.

Call Before You Dig System

According to RCW 19.122.030, excavators are required to mark the boundary of a proposed excavation area using white marking products. Marking products include paint, flags, and stakes. Boundary marks should conform to the following guidelines:

- A continuous line, hashed line, dots, or corner marks with arrows are acceptable ways to mark the boundary.
- Flags and stakes can be used if paint is not adequate.

The location(s) of the proposed excavation area(s) must be reviewed to verify that no visible utilities that would interfere with the proposed excavation area(s) are present. If utilities are present, the Project Manager and field personnel should communicate the changes to the excavation that are area necessary before the boundaries are marked with white paint.

After marking the boundaries of the proposed excavation area, Farallon personnel must provide notice of the scheduled excavation to the owner/operators of buried utilities at least 2 but no more than 10 business days in advance by calling 811 or 1-800-424-5555, or using the online tool at www.callbeforeyoudig.org. Use of the online tool is preferred.

A map with the excavation area boundaries depicted and/or photos of the white paint marks is helpful in conveying the scope of work to the Call Before You Dig service.

The following information should be available to provide the Call Before You Dig service at the time of initial contact:

- Scope of work, including the start date and time.
- Contact information for the Project Manager and a field person able to answer questions from public utility locators regarding project details.

- Site address, township/range/section quarter, and name of property owner.

Once the Call Before You Dig system has been notified of the upcoming work, the system provides a ticket number, which

- Should be referenced whenever the Call Before You Dig service is contacted about the job.
- Provides proof that the Call Before You Dig system was notified prior to excavation. Public utility locators, inspectors, and law enforcement personnel may ask for the ticket number.
- Should be supplied to any subcontractors doing work on the site for reference when contacting the system for their own ticket number.

Call Before You Dig personnel will provide a list of public utilities present on the site, and will notify public utility operators of the planned work.

Public utility operators have 2 full business days after the day notification was received to locate and mark their lines, or to provide reasonable information on lines that they are not able to locate. The day notice is given is not included as 1 of these 2 days. Therefore, if excavation work is planned to start on a Monday, for example, the Call Before You Dig system must be notified by Wednesday the week before.

Two full business days must elapse between Call Before You Dig notification and the start of excavation. No excavation is to take place until all known utilities are marked or otherwise accounted for with information provided by the facility operator.

Locators mark their lines with colored hash marks. The American Public Works Association determines the colors to be used to denote different kinds of lines:

Red: Power Lines and Cable	Yellow: Gas, Oil, Petroleum
Orange: Telephone and Cable	Blue: Drinking Water
Green: Sewer (Storm and Sanitary)	Purple: Non-Potable Water
Pink: Survey Marks	White: Excavator Marks

Public utility operators are required to mark their lines only to the meter. Utility lines located beyond the meter are the responsibility of the property owner. Public utility operators should indicate by marking if no public utilities are present.

Public utility locators are required to mark their lines with reasonable accuracy. According to RCW 19.122.020, “reasonable accuracy means location within twenty-four inches of the outside dimensions of both sides of an underground facility.”

At this time, public utility companies are not required to mark abandoned or deactivated lines in Washington.

An individual not following the protocols established by the Call Before You Dig system can be held liable for up to three times the cost to repair a utility line damaged during excavation.

Records of ticket numbers and communications with the Call Before You Dig service should be stored in the project folder and supplied to on-site project personnel.

Before any excavation work is started, Farallon personnel should verify that all public utility marks are present on the site. The public utility company/ies listed on the Call Before You Dig system ticket should be contacted if marks for that utility/ies are not present.

Private Utility Locating Services

After the public utility companies have marked their lines and before excavation begins, it is standard practice to have a private utility locating service clear areas that will be excavated.

Private locates generally are scheduled for the day before or the morning of the start of excavation.

Areas where excavation will occur must be cleared for conductible utilities by a private locator. Depending on the nature of the site and the proximity of utility lines, the private locator may also mark non-conductible utilities.

If possible, the excavation contractor should be on the site during the private utility locating to verify with the private locator that all proposed excavation areas are accessible.

When working with private utility locators, Farallon personnel should:

- Study existing figures of the site, noting the locations of known utilities.
- Use available side sewer cards or geographic information system utility figures to verify utility locations at the site.
- Verify that all public utilities have been marked by physically verifying that colored paint marks are present for all of the public utility companies listed on the One Call Before You Dig ticket. If any public utilities have not been marked, the utility company must be contacted and requested to mark the area, or to provide confirmation that the area is clear of their utility.
- Discuss the scope of work/excavation areas with the private locator.
- Document the name of the locating company and the name of the locator.
- Observe the locator clear the excavation area(s).
- Document the locate marks with photos, and note any uncertainties in the Field Report form.
- Identify the locations of shut-off valves for utilities such as water and natural gas.
- Contact the Project Manager or Principal to discuss relocating the excavation area if a proposed excavation area is in conflict with a utility identified by the private locator.
- Sign the locator's paperwork, if necessary, and depart the site if no additional field work is to be performed that day.

Private location of conductible utilities should sweep the excavation area in two perpendicular directions.

Private location of non-conductible utilities (typically storm and sanitary sewer) can use either a probe or a camera for accessible lines. Appropriately colored paint marks are applied by the private locator based on a signal sent from the probe or camera. For inaccessible lines, a ground-penetrating radar or magnetometer can be used to approximate the line locations. Marks based on this method should be considered approximate.

Hand-Clearing Excavation Areas

Prior to conducting certain excavation activities, excavators will clear the proposed excavation area to verify that no utilities are present. This can be accomplished through use of an air knife/vacuum truck, post-hole digging, hand-augering, or use of other hand tools that allow the excavation location be explored sufficiently to verify that no utilities are present. Farallon Project Managers will confirm the method of clearing and depths with the field team before the excavation work is performed. Farallon Project Managers also need to discuss shallow soil sampling needs with the field team if clearing activities are being performed. Clearing activities should be conducted according to the following guidelines:

- **Hollow-Stem Auger Drilling:** Hand-clear to a minimum depth of 5 feet below ground surface (bgs) using an air knife/vacuum truck whenever possible. Alternative methods such as post-hole digging or hand-augering also may be used.
- **Sonic Drilling:** Hand-clear to a minimum depth of 5 feet bgs using an air knife/vacuum truck whenever possible. Alternative methods such as post-hole digging or hand-augering also may be used.
- **Geoprobe Drilling:** Clearing activity requirements are dependent on known utilities and results of the public and private utility location procedures completed above. Hand-clear using a post-hole digger or hand-auger to a maximum depth of 5 feet bgs is necessary. An air knife/vacuum truck may be used to hand clear each boring location to a maximum depth of 5 feet bgs, if available.
- **Test Pit Excavation:** No hand-clearing is necessary. Excavation contractors should be directed to dig cautiously in the upper 5 feet bgs in the event an unknown utility is present. A test pit excavation or regular excavation using machinery (e.g., track hoe, backhoe) should include using a spotter to watch for unidentified utility lines. Ideally, the spotter should be provided by the excavation contractor.
- **Rotary Hammer for Soil Gas Sampling:** No hand-clearing is necessary.
- **Rotary Hammer for Subslab Soil Gas Sampling:** No-hand clearing is necessary.

Some drilling contractors require that a utility line be exposed prior to drilling if the proposed drilling location is within a certain distance of the utility line. Farallon personnel should confirm drilling contractor requirements prior to conducting drilling activities.

If a utility line is encountered during clearing, excavators should verify that the utility has not been damaged, and Farallon personnel should document the encounter on the Field Report form with photos and details. RCW 19.122.020 states that “damage” includes the substantial weakening of

structural or lateral support of an underground facility, penetration, impairment, or destruction of any underground protective coating, housing, or other protective device, or the severance, partial or complete, of any underground facility to the extent that the project owner of the affected facility operator determines that repairs are required. The Project Manager or Principal should be notified immediately if a utility line is encountered during hand-clearing, and an alternate location will be proposed. A hand-cleared area having an exposed utility line should be backfilled with a bentonite seal and finished to match existing grade.

Maintaining Public Utility Locate Marks

According to RCW 19.122.030, “public utility locate marks expire 45 days from the date the excavator provides notice,” and “it is the responsibility of the excavator to maintain the public utility marks for 45 days, or for the length of the project–whichever is shortest. In any case, the public utility locate marks expire after 45 days.”

Locate marks can be maintained digitally through both photos and figures drawn to scale.

Locate marks can be maintained in the field using white paint. White paint can be applied between original hash marks, on either side of the hash marks, or on both ends. Offset paint or staking can be used if placed a uniform distance from the original marks with a clear indication of the direction and distance from the original marks. The original marks should not be painted over, and white paint should never be applied over colored paint. White marks should include a letter identifying the type of buried line.

Utility Line Damage

A utility line does not need to be ruptured or severed to be considered damaged. Scratching or denting a utility line or its protective tape also is considered damage, as the integrity of the line may have damaged even if the damage does not appear to be significant. Before excavation work begins, shut-off valve locations for applicable utilities should be documented. If a utility is believed to be damaged, the utility should be shut down if practicable and safe to do so. According to RCW 19.122.053, “all facility operators and excavators who observe or cause damage to an underground facility must report the damage event to the Washington State Utilities and Transportation Commission.”

If a utility line is hit and public safety is a concern, 911 should be the first call made after the immediate area has been evacuated. If a utility line is hit and the public is not at risk, the field team should notify the Project Manager, who will notify the Principal and the corporate Health and Safety Coordinator immediately. The Project Manager should then contact the utility that owns the damaged line, and report to the field team any instructions issued by the utility owner, and an expected timeframe for arrival of a utility owner representative at the site. Repairs to a utility line will not be attempted by Farallon personnel or contractors.

Damage must be reported through the Common Ground Alliance Damage Information Reporting Tool website, hosted by the Washington State Utilities and Transportation Commission: <http://www.utc.wa.gov/publicSafety/pipelineSafety/Pages/Damagereportingrequirements.aspx>

Access to damaged utility lines should be maintained to allow inspection by the utility company. An exposed utility should not be backfilled or patched until instruction to do so has been provided by the Project Manager or Principal.

DOCUMENTATION

Farallon personnel should document in the Field Report form the work performed and methods used by private utility locators, and photos from multiple angles with good reference points for each utility line in the excavation area(s).

REFERENCES

Washington Utilities Coordinating Council. 2014. *Guide to Safe Digging, Washington State Law and Industry Best Practices*.

STANDARD OPERATING PROCEDURE GW-01

MONITORING WELL CONSTRUCTION

PURPOSE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to provide field personnel with the methodology for monitoring well construction and installation. Monitoring well construction ultimately is at the discretion of the Project Manager, and is based on the geology at the site and the use of the monitoring well. Groundwater monitoring wells in the Puget Sound region, for example, typically are constructed using 2-inch-diameter Schedule 40 polyvinyl chloride well casing with 0.010-inch slotted screens because of the finer-grained materials prevalent in the region. Slot and sand sizes may be increased at the discretion of the Project Manager, depending on local geology. Monitoring wells must be installed and decommissioned by a licensed well driller, and constructed in general accordance with Chapter 173-360, Minimum Standards for Construction and Maintenance of Wells, of the Washington Administrative Code in Washington; with Rule 0410 of Division 240 of Chapter 690, Well Construction Standards – General, of the Oregon Administrative Rules in Oregon; with Bulletins 74-81 and 74-90, California Well Standards, from the California Department of Water Resources in California; and with the federal and/or state standards established for well construction specified in the project-specific field sampling plan in other states.

EQUIPMENT AND SUPPLIES/REAGENTS

The following equipment is necessary for the construction and installation of monitoring wells:

- Monitoring well construction equipment (e.g., water-level meter, photoionization detector, tape measure, camera, plastic sheeting), as applicable.
- Monitoring well construction materials (e.g., well casing [screened and blank], filter pack sand, bentonite and/or Volclay Grout annular seal material, concrete, locking casing cap, well-head monument [flush-mounted or stove-pipe monument, as appropriate] complete with locking top, bollards for placement around well-head monument as applicable), provided by the driller.
- Materials necessary to provide required documentation, including Boring Log, Monitoring Well Construction Data form, and Field Report form.
- Personal protective equipment as described in the site-specific Health and Safety Plan.
- Decontamination equipment as specified in Farallon SOP EQ-01, Equipment Decontamination Procedures.
- U.S. Department of Transportation-approved drum(s) for decontamination wastewater and excess soil cuttings. Separate drums are needed for liquid and solid wastes (refer to Farallon SOP WM-01, Field-Handling of Investigation-Derived Waste). Liquid wastes should not be added to drums containing solid wastes.



DECONTAMINATION

Before arrival at the site, upon relocation at the site, and upon demobilization from the site, decontaminate equipment that will come into contact with potentially contaminated soil and groundwater, in accordance with Farallon SOP EQ-01, Equipment Decontamination Procedures.

PROCEDURES

Follow the instructions below for monitoring well construction and installation:

- Don appropriate personal protective equipment as described in the site-specific Health and Safety Plan.
- Before installing the casing, discuss the geology and groundwater conditions at the site with the Project Manager to confirm the depth the monitoring well screen should be placed at, and the length of screen to be used.
- Measure the depth to the bottom of the borehole to calculate the appropriate placement and length of the screened interval, filter pack, annular seal, and concrete surface seal. Calculate the approximate volumes of the filter pack and the seal material required for the specific monitoring well bore annulus and monitoring well casing diameter. Ensure that the filter pack extends from the bottom of the monitoring well intake to approximately 2 to 5 feet above the top of the monitoring well intake, and is approximately 2 to 4 inches thick. The monitoring well casing should be centered in the borehole. Ensure that the annular seal is a minimum of 2 feet thick above the top of the filter pack, and that the concrete seal is a minimum of 2 feet in depth from the surface.
- Prior to installation, measure and check the lengths of the monitoring well screen and the blank casing, and confirm the slot size and the sand filter pack size, the type of bentonite seal and/or Volclay Grout seal, and the monitoring well-head monument. For boreholes completed to depths deeper than the planned installation depth of the monitoring well casing, backfill the borehole with bentonite, sand, or pea gravel. Record the type and brand of the monitoring well construction materials used on a Monitoring Well Construction Data form.
- Record on a Field Report form the start and completion times for the various stages of monitoring well construction such as installation of the monitoring well casing into the borehole, filter pack and seal emplacement, and well-head monument placement.
- Record on a Monitoring Well Construction Data form the volumes of filter pack, the bentonite seal, and the concrete used to construct the monitoring well, and check against calculated volumes to confirm proper placement and amount. During the construction process, record any irregularities such as bridging of the filter pack or seal material that could indicate construction problems.
- Upon completion of monitoring well installation, measure the total monitoring well depth and the depth to groundwater, and record the measurements on the Monitoring Well Construction Data form.



- Place a mark or notch on the northern side of the top of the monitoring well casing to provide a monument for the measurement of water levels.

DOCUMENTATION

Document monitoring well construction activities on the Monitoring Well Construction Data form and the Field Report form.

REFERENCES

U.S. Environmental Protection Agency. 1991. *Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells*. EPA160014-891034. March.

———. 1996. *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*. EPA/540/S-95/504. April.

STANDARD OPERATING PROCEDURE GW-02

MONITORING WELL DEVELOPMENT

PURPOSE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to provide field personnel with the methodology for monitoring well development. All monitoring wells should be developed to create an effective filter pack around the monitoring well screen, rectify damage to the formation caused by drilling, remove fine particulates from the formation near the borehole, and assist in restoring the natural water quality of the aquifer in the vicinity of the monitoring well. The step-by-step guidelines provided in this SOP are to be followed by the field crew performing or overseeing monitoring well development.

EQUIPMENT AND SUPPLIES/REAGENTS

The following equipment is necessary to properly develop a groundwater monitoring well:

- Monitoring well key, socket wrench or speed wrench, socket set, padlock key, or other monitoring well-access equipment.
- Electric water-level meter long enough to reach the bottom of the monitoring well, calibrated to 0.01 foot.
- Two-inch-diameter (or appropriately sized) surge block.
- Monitoring well-purging equipment (e.g., silicone line, polyvinyl chloride pipe, plug, submersible or non-submersible pump, tubing, power supply, extension cord), as applicable.
- U.S. Department of Transportation-approved drum(s) for decontamination wastewater unless other water-handling arrangements have been made. Separate drums are needed for liquid and solid wastes (see Farallon SOP WM-01, Field Handling of Investigation-Derived Waste). Liquid wastes should not be added to drums containing solid wastes.
- Materials necessary to provide required documentation (e.g., Field Report form, Monitoring Well Construction Data form, and Waste Inventory Tracking Sheet).
- Personal protective equipment as described in the site-specific Health and Safety Plan.
- Decontamination equipment as specified in Farallon SOP EQ-01, Equipment Decontamination Procedures.

DECONTAMINATION

Before arrival at the site, upon relocation at the site, and upon demobilization from the site, decontaminate equipment that will come into contact with groundwater, in accordance with SOP EQ-01, Equipment Decontamination Procedures.



PROCEDURES

Follow the instructions below for each monitoring well:

- Don appropriate personal protective equipment as described in the site-specific Health and Safety Plan.
- Brush away soil and vegetation, and pump standing water away from the monitoring well opening.
- Open the monitoring well cap.
- Measure the depth to water and the total depth of the monitoring well to the nearest 0.01 foot using a decontaminated water-level meter in accordance with Farallon SOP GW-03, Groundwater Level Measurements in Monitoring Wells. Record the measurements on the Monitoring Well Construction Data form.
- Calculate the unit purge volume using the formula and the input values from the table below:

$$V = [X(\text{monitoring well depth} - \text{water level})] + [Y(\text{monitoring well depth} - \text{bottom of seal or water level, whichever is lowest in depth})]$$

Where:

V = monitoring well volume, including annular space

X = internal casing volume per unit length (gallons per linear foot)

Y = annular volume per unit length (gallons per linear foot)

Borehole Diameter (inches)	Casing Diameter (inches)	Volume _{casing} (X) (gallons per linear foot)	Volume _{annulus} (Y) (gallons per linear foot)
7	2	0.17	0.68
8	2	0.17	0.98
10	4	0.65	1.34
12	4	0.65	2.07
12	6	1.47	1.70
14	8	2.61	1.98

Development Procedures – Existing and New Monitoring Wells

Existing wells in a monitoring well network may require redevelopment if an excessive amount of fines are present in the monitoring well casing that could interfere with stabilization of water-quality parameters or collection of representative water-quality samples.



The instructions below are to be followed for development of existing and new monitoring wells:

For existing monitoring wells only:

- Remove the pump and/or any dedicated tubing from the monitoring well.

For existing and new monitoring wells:

- Attach one length of twine to the decontaminated surge block (or use a drill rig or tripod) and lower the surge block to within 0.25 foot of the bottom of the monitoring well.
- Surge the monitoring well by vigorously moving the surge block up and down from 0.25 foot from the bottom of the monitoring well to 1 foot above the top of the screened interval for a minimum of 5 minutes to create a surging action across the screened interval, which will bring finer-grained material into suspension. Move the surge block up and down in 3-foot sections until the entire monitoring well screen length has been surged. Record on the Monitoring Well Construction Data form the number of times the surge block is raised and lowered, and total surge time.
- Remove the surge block.
- If a submersible pump is to be used for monitoring well development, gently lower the pump into the monitoring well to within 1 foot of the bottom of the screened interval. If a non-submersible pump is to be used, lower the tubing to within 1 foot of the bottom of the screened interval.
- Begin purging the monitoring well at a rate sufficient to remove fines without pumping the monitoring well dry. Record on the Monitoring Well Construction Data form the volume of water pumped from the monitoring well.
- Surge and pump the monitoring well, including saturated annular space, a minimum of three and a maximum of five monitoring well volumes. If the monitoring well runs dry, let the monitoring well recharge. Then commence purging until a minimum of three monitoring well volumes have been purged. If this event is the first time the monitoring well has been developed and water was added during the drilling process, remove the volume of water introduced during drilling and monitoring well construction. Purging has been completed when *one* of the following has occurred:
 - The minimum purge volume has been removed; OR
 - Five purge volumes and the drilling process water volume have been removed.
- Measure the total depth of the monitoring well after development, and record on the Monitoring Well Construction Data form the total volume of water pumped from the monitoring well.
- Record on the Monitoring Well Construction Data form a description of the suspended particle content, and additional information such as unique odor or water color.



- Containerize the purge water in a U.S. Department of Transportation-approved drum(s) unless other water-handling arrangements have been made. Separate drums are needed for liquid and solid wastes (refer to Farallon SOP WM-01, Field-Handling of Investigation-Derived Waste). Liquid wastes should not be added to drums containing solid wastes.
- Upon completion of monitoring well development, properly seal, secure, and label the drums in accordance with Farallon SOP WM-01, Field-Handling of Investigation-Derived Waste. Record the number and contents of the drums on a Waste Inventory Tracking Sheet. At a minimum, the drum label(s) should include:
 - Boring/monitoring well ID.
 - Facility name.
 - Drum contents.
 - Date.
 - Drum number.
- Close the monitoring well and record any monitoring well-integrity concerns on the Field Report form and the Monitoring Well Construction Data form.
- Decontaminate all equipment in accordance with Farallon SOP EQ-01, Equipment Decontamination Procedures.

DOCUMENTATION

Document monitoring well development activities on the Monitoring Well Construction Data form. Record the number and contents of the drums on a Waste Inventory Tracking Sheet.

REFERENCE

U.S. Environmental Protection Agency. 1991. *Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells*. Document No. 160014-891034. March.

STANDARD OPERATING PROCEDURE GW-03

GROUNDWATER LEVEL MEASUREMENT IN MONITORING WELLS

PURPOSE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to provide field personnel with the methodology for measuring and documenting the depth to groundwater in monitoring wells. The step-by-step guidelines provided in this SOP are to be followed by the field crew to ensure consistent and representative measurements of depth to groundwater in monitoring wells. When multiple wells are present at a site, all water-level measurements typically are taken as quickly as possible to aid in the creation of potentiometric surface maps that are representative of a “single” point in time.

EQUIPMENT AND SUPPLIES/REAGENTS

The following equipment is necessary to properly measure the depth to groundwater in monitoring wells:

- Monitoring well key, hand drill, socket set, Allen wrench, speed handle, padlock key, or other monitoring well-access equipment specific to the monitoring well monument cover plate.
- Electronic water-level meter (Solinst or equivalent) narrow enough to fit in the monitoring well, calibrated to 0.01 foot, with sufficient line to reach the bottom of the monitoring well.
- Oil-water interface probe, if light nonaqueous-phase liquid (LNAPL) is known or suspected to be present.
- Disposable bailer if LNAPL is known or suspected to be present, and the Project Manager requests that LNAPL be bailed from the well.
- Tape measure.
- Materials necessary to provide required documentation, including Groundwater Level Measurement Summary Forms and Field Report forms.
- Personal protective equipment as described in the site-specific Health and Safety Plan.
- Decontamination equipment as specified in Farallon SOP EQ-01, Equipment Decontamination Procedures.

DECONTAMINATION

Before arrival at the site, upon relocation at the site, and upon demobilization from the site, decontaminate equipment that will come into contact with groundwater, in accordance with Farallon SOP EQ-01, Equipment Decontamination Procedures.



PROCEDURES

Follow the instructions below for measuring water levels at each monitoring well:

- Don appropriate personal protective equipment as described in the site-specific Health and Safety Plan.
- Check the operation of the water-level meter by turning on the indicator switch and pressing the test button.
- Remove soil or vegetation from the monitoring well site.
- Open the monitoring well-head enclosure, and use a bilge pump or cup to remove standing water inside the monitoring well monument before opening the monitoring well cap. Dispose of standing water to the ground surface.
- Open the monitoring well cap.
- Monitor air quality at the monitoring well-head if volatile contaminants are suspected to be present, or if it is unknown whether volatile contaminants are present.
- Repeat above procedure until all monitoring wells are open.
- Allow the water level to equilibrate with ambient atmospheric pressure for approximately 15 minutes before measuring.
- Before taking any measurements, carefully measure the length of the sonde to the nearest 0.01 foot. The additional 2 to 3 inches from the zero point of the sonde to the tip of the sonde **must be discounted** for **all** total depth measurements.
- Measure and record the depth to water using a water-level meter that has been decontaminated in accordance with Farallon SOP EQ-01, Equipment Decontamination Procedures. With the water-level meter turned on to a medium level of sensitivity, slowly lower the meter into the monitoring well casing until it reaches the groundwater table. The probe will beep when it reaches the interface of the groundwater table (when the electronic circuit is first completed). Stop lowering the probe, hold the graduated water-level cable to the notch or mark on the northern side of the top of the monitoring well casing, and note the length measurement. Repeat this process to collect a second water-level measurement. If the two readings differ by more than 0.01 foot, repeat the measurements until the readings stabilize. Repeat the process until three consecutive stabilized readings have been measured. Record the water-level measurement **only** in relation to the probe being lowered into the monitoring well, *not* as it is raised out of the monitoring well. If you cannot see the top of the monitoring well casing when the water level beeps, grasp the tape with your thumb and index finger exactly at the measuring point corresponding with the notch or mark at the top of the monitoring well casing. Slowly pull the cable out of the monitoring well and read the measurement. Repeat until readings stabilize.
- Remove the cable from the monitoring well, and record the stabilized depth-to-water measurement on the Groundwater Level Measurement Summary Form to the nearest 0.01 foot.



- Measure the total monitoring well depth. **NOTE:** If groundwater samples are to be collected, measure the total monitoring well depth **after** all groundwater samples have been collected, to avoid resuspension of settled solids in the monitoring well, impacting the samples. If the monitoring well does not have a dedicated pump, lower the water-level indicator probe to the bottom of the monitoring well to measure the total depth of the monitoring well. Gently bounce the probe on the monitoring well bottom, and pull the slack in the cord to read the total monitoring well depth. Repeat three times to ensure that the monitoring well depth measurement is reproducible, and is representative of the true depth. Note on the Groundwater Level Measurement Summary Form whether the bottom of the monitoring well is hard or soft.
- Remove the cable from the monitoring well, and record the monitoring well depth measurement on the Groundwater Level Measurement Summary Form to the nearest 0.01 foot.
- Decontaminate the water-level meter in accordance with Farallon SOP EQ-01, Equipment Decontamination Procedures.
- If the presence of LNAPL is suspected or if site conditions are unknown, check for the presence of LNAPL by one of two methods:
 - Use of a bailer: Use a new 3-foot-long disposable bailer attached to a nylon rope. Slowly lower the bailer until the bottom of the bailer is approximately 2 feet below the water surface. Slowly retrieve the bailer, and measure the product thickness using a tape measure. Record the information on the Groundwater Level Measurement Summary Form. Dispose of the bailer and product or wastewater in accordance with Farallon SOP WM-01, Field Handling of Investigation-Derived Waste.
 - Use of an oil-water interface probe: Decontaminate the oil-water interface probe in accordance with Farallon SOP EQ-01, Equipment Decontamination Procedures. With the oil-water interface probe meter turned on to a medium level of sensitivity, slowly lower the probe into the monitoring well casing until it reaches the top of the LNAPL. The probe will have a steady beep when it reaches the interface of the LNAPL (when the electronic circuit is first completed). Stop lowering the probe, hold the graduated oil-water interface cable to the notch or mark on the northern side of the top of the monitoring well casing, and note the length measurement. Repeat this process to collect a second LNAPL measurement. If the two readings differ by more than 0.01 foot, repeat the measurements until the readings stabilize. Repeat the process until three consecutive stabilized readings have been measured. Record the depth to LNAPL measurement **only** in relation to the probe being lowered into the monitoring well, *not* as it is raised out of the monitoring well. If you cannot see the top of the monitoring well casing when the oil-water interface probe beeps, grasp the tape with your thumb and index finger exactly at the measuring point corresponding with the notch or mark at the top of the monitoring well casing. Slowly pull the cable out of the monitoring well and read the



measurement. Repeat until readings stabilize. Once the depth to LNAPL has been recorded, collect the water-level measurement as described above using the oil-water interface probe. Once the depth to LNAPL and the depth to the groundwater table have been determined, subtract the depth to LNAPL from the depth to the groundwater table to determine LNAPL thickness.

- Close the monitoring well as appropriate based on monitoring well-head construction. Record any concerns about monitoring well integrity on the Groundwater Level Measurement Summary Form and on the Field Report form.

DOCUMENTATION

Document monitoring well water-level measurements on the Groundwater Level Measurement Summary Form. Document any additional information on the Field Report form.

REFERENCE

U.S. Environmental Protection Agency. 1992. *RCRA Ground-Water Monitoring: Draft Technical Guidance*. Office of Solid Waste. November.

STANDARD OPERATING PROCEDURE GW-04

LOW-FLOW GROUNDWATER SAMPLING PROCEDURES

PURPOSE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to provide field personnel with the methodology for collecting and documenting groundwater samples from monitoring wells using U.S. Environmental Protection Agency (EPA) low-flow groundwater sampling procedures (EPA 1996, 2017) for chemical analysis to ensure consistent and representative sampling. The step-by-step guidelines provided in this SOP are to be followed by the field crew conducting groundwater sampling.

EQUIPMENT AND SUPPLIES/REAGENTS

The following equipment is necessary to properly purge and sample a monitoring well:

- Monitoring well key, hand drill, socket set, padlock key, or other monitoring well-access equipment.
- Electronic water-level meter long enough to reach the bottom of the monitoring well, calibrated to 0.01 foot. Alternatively, to measure for light nonaqueous-phase liquid thickness in addition to groundwater, use an oil-water interface probe.
- Monitoring well purging and sampling equipment:
 - Submersible pump (bladder or Grundfos): the pump, control box, and power source (typically a portable generator or a 12-volt battery); or
 - Peristaltic pump: the pump with pump head, silicone tubing, tubing connectors (as needed), and power source (typically a 12-volt battery).
- Sample tubing of project- and site-specific type and length.
- Bailer, if a pump is not used, or if light nonaqueous-phase liquid requires removal.
- Sufficient number of 55-gallon drums, including lids, gaskets, and fasteners, to contain all purge water, unless other water-handling arrangements have been made.
- Flow-through water-quality meter(s) to measure temperature, pH, specific conductivity, dissolved oxygen, oxidation-reduction potential (ORP), and turbidity.
- Air-space monitoring equipment if required (photoionization detector or multi-gas meter).
- Decontamination equipment and supplies (e.g., buckets, scrub brushes, deionized or distilled water, potable water, Liquinox detergent).
- Materials necessary to provide required documentation, (e.g., sample labels, Field Report forms, Low-Flow Well Purging and Sampling Data form, Chain of Custody form, Waste Inventory Tracking Sheet).



- Sample containers with the chemical preservatives appropriate for the samples, as described in project-specific plans, or as required by the analytical laboratory at a minimum.
- Personal protective equipment as described in the site-specific Health and Safety Plan (HASP).
- Sampling-support equipment (e.g., sample coolers, ice, bubble wrap, clear tape, duct tape, resealable plastic bags, garbage bags, paper towels, distilled water, nitrile gloves, shipping supplies).
- U.S. Department of Transportation-approved drum(s) for purge water, unless other water-handling arrangements have been made. Separate drums are needed for liquid and solid wastes (Refer to Farallon SOP WM-01, Field Handling of Investigation-Derived Waste). Liquid wastes should not be added to drums containing solid wastes.

DECONTAMINATION

Before arrival at the site, upon relocation at the site, and upon demobilization from the site, decontaminate reusable equipment that will come into contact with the monitoring well(s) and/or be used to acquire samples, in accordance with Farallon SOP EQ-01, Equipment Decontamination Procedures.

PROCEDURES FOR LOW-FLOW GROUNDWATER SAMPLING

Low-flow groundwater sampling procedures have been developed for monitoring wells with a dedicated pump (dedicated monitoring wells) and for monitoring wells without a dedicated pump (non-dedicated monitoring wells). Setup, purging, sample collection, and post-sampling procedures for dedicated and non-dedicated monitoring wells are presented below.

Setup

Setup procedures differ slightly for dedicated versus non-dedicated monitoring wells. Follow the instructions below for the monitoring wells as indicated:

- Calibrate the water-quality meter for the field parameters specified in the project-specific plans. At a minimum, collect temperature, pH, and specific conductivity during purging and prior to sampling. Record on the Field Report form the equipment calibration and maintenance performed. Decontaminate the water-quality meter between monitoring wells by rinsing with distilled or deionized water. Manage the rinsate water used in collecting these measurements in the same manner as for purge water, as defined in project-specific plans, and in accordance with Farallon SOP WM-01, Field Handling of Investigation-Derived Waste.
- Don appropriate personal protective equipment as described in the site-specific HASP, including nitrile gloves for activities that might involve contact with groundwater or equipment. Change gloves between each monitoring well at a minimum, or when



contaminants could be introduced into a monitoring well or onto decontaminated equipment.

- Brush away soil and/or vegetation, and pump standing water away from the monitoring well opening. If necessary, place a plastic drop cloth around the monitoring well-head to prevent sampling equipment from contacting the ground surface.
- Inspect the condition of the monitoring well (e.g., locked monitoring well cap, tightness of monitoring well cap, well-marked measuring point on casing, disturbance of surface casing, straightness of monitoring well casing, condition of concrete pad). Indicate the monitoring well condition on the Low-Flow Well Purging and Sampling Data form.
- Open the monitoring well cap. If the site-specific HASP identifies organic compounds as potential contaminants of concern, screen the monitoring well headspace and the breathing zone headspace (if specified in the HASP) for organic vapors using the appropriate field monitoring instrument (e.g., photoionization detector, multi-gas meter).
- Measure and record the depth to water using a decontaminated water-level meter in accordance with Farallon SOP GW-03, Groundwater Level Measurements in Monitoring Wells.
- If light nonaqueous-phase liquid may be present (see site-specific plans), obtain a sample from the monitoring well using a bailer (if a dedicated pump is not in use), as specified in Farallon SOP GW-03, Groundwater Level Measurements in Monitoring Wells. Alternatively, measure free-floating product thickness using an oil-water interface probe.
- Calculate the monitoring well casing volume as follows:

Monitoring well casing volume in gallons = $(\pi * r^2) * h (7.48 \text{ gallons/cubic foot})$

Where:

r = radius of the inside of the monitoring well casing in feet

h = length of the water column in the monitoring well casing (i.e., the depth to the bottom of the monitoring well minus the depth to water, both measured from the mark at the top of the monitoring well casing), in feet

- **For monitoring wells with dedicated pumps and tubing:** Set up a flow-through cell in preparation for purging. Connect dedicated tubing from the monitoring well to the flow-through cell. Set tubing and/or pump to the correct water depth in accordance with the constituents being sampled for, as described in project-specific plans. **DO NOT IMMERSE water-quality probes or meters in purge water containing nonaqueous-phase liquids, which could damage the probes.** Turn the pump controller to its lowest setting, set the memory in the flow-through cell to record readings every 3 minutes, and turn on the pump. Begin purging slowly (i.e., less than 500 milliliters per minute [ml/min]) to prevent drawing down the water table.



- **For monitoring wells with non-dedicated pumps:** Connect dedicated silicon tubing to the peristaltic pump. Place the tubing intake at the midpoint of the screen, or at the depth pre-determined in the project-specific plans. If using a bladder pump, insert the bladder pump and attach the dedicated polyethylene tubing so the pump intake is at the approximate midpoint of the screened interval, or set the pump intake to the depth pre-determined in the project-specific plans.

Purging Procedures

The purging instructions below are to be followed for dedicated and non-dedicated monitoring wells:

- Begin purging, and initiate water-quality testing for temperature, pH, specific conductivity, dissolved oxygen, ORP, and turbidity. Purge monitoring wells using a peristaltic or bladder pump, and dedicated polyethylene and silicon tubing. Record water-quality parameters every 3 minutes.
- Record water levels every 3 minutes, as possible. It is imperative that the water level not drop by more than 0.33 foot during the low-flow purging process. If the water level drops more than 0.33 foot during purging, reduce the flow rate on the pump. Recommended purge rates generally are less than 500 ml/min. Actual purge rates will vary based on aquifer material and monitoring well construction. If the water level continues to drop by more than 0.33 foot during the low-flow purging at a rate less than 100 ml/min, notify and consult with the Project Manager on how to proceed.
- Record flow rates every 3 minutes. Ensure that the flow rate does not exceed 500 ml/min during the low-flow purging process.

Purging Requirements

Continue purging at a constant rate until the water-quality parameters have stabilized for three successive measurements according to the stability criteria provided in the table below. Before samples can be collected from each monitoring well, the groundwater must stabilize according to following criteria:

- Drawdown is no greater than 0.33 foot for low-flow sampling, and
- The water-quality parameters should stabilize according to the criteria specified below:



Water-Quality Parameter	Stability Criterion
Turbidity (if required)	10% for values greater than 5 NTU or three consecutive values < 5 NTU
Dissolved oxygen	10% for values greater than 0.5 mg/l, or three consecutive values <0.5 mg/l
Specific conductivity	3%
Oxidation-reduction potential	+/- 10 millivolts
pH	+/- 0.1 unit
Temperature	3%

Notes:

mg/l = milligrams per liter

NTU = nephelometric turbidity unit

Although under some circumstances, a monitoring well may not stabilize according to the above criteria, the monitoring well can still be sampled if the monitoring well does not meet stability criteria due to the instrument accuracy, or the water level drops below the minimum value using low-flow sampling procedures. For example, a fluctuation in ORP greater than 10 millivolts does not meet the stability criterion. However, because the accuracy range of the ORP instrument is ± 20 millivolt, the stability criterion would be considered satisfied and within the range of instrument accuracy. Consult the manual for the instrument to determine the accuracy range.

Also, if the water level drops below the minimum value using low-flow sampling procedures (i.e., the pump intake, or the top of the screen if the aquifer is confined) during purging and one monitoring well volume of groundwater has been removed from the monitoring well, or the monitoring well runs dry during the purging procedure, sample the monitoring well as soon as the water level has recovered sufficiently to allow collection of the volume of groundwater necessary for all samples. Use the following equation to determine the minimum volume of groundwater to remove before sampling:

$$\text{Minimum purge volume} = 2 * [500 \text{ milliliters} + M * (\text{length of tubing in feet})]$$

Where: M = volume (in milliliters) contained in a 1-foot length of tubing

The value of M is provided below for the inner diameters of tubing listed:

Inner Diameter (inches)	M (milliliters)
0.125	2.4
0.25	9.7
0.5	39

Record on the Field Report form and the Low-Flow Well Purging and Sampling Data form if any monitoring well did not meet the drawdown and stability criteria and explain the rationale for sampling the monitoring well at the time it was sampled. If stability criteria have not been achieved following completion of all entries in the Low-Flow Well Purging and Sampling Data form, notify



and consult with the Project Manager whether to continue purging until stability criteria have been achieved or begin sample collection.

Sample Collection

During low-flow sampling, do not stop pumping once the purging requirements have been met. Turn down the flow rate on the pump so the water flow is minimal, but maintain sufficient pressure in the system to prevent water from the tubing or flow-through cell from flowing back into the monitoring well. Disconnect the pump discharge hose from the flow-through cell, or cut the tubing just before the connection to the flow-through cell. It is imperative not to lower the water table or disturb the water column. Fill pre-cleaned laboratory-supplied sample containers directly from the pump discharge tube into the proper sample container, and fill to capacity. Place a bucket beneath the sampling tube to catch any unsampled water between filling the sample jars. When collecting groundwater samples for multiple analyses, collect the samples in the order listed below per the EPA (1992) groundwater sampling technical guidance:

- Volatile organic compounds (VOCs);
- Dissolved gases and total organic carbon;
- Semivolatile organic compounds;
- Metals and cyanide;
- Major water quality cations and anions;
- Radionuclides; and
- Dissolved (filtered) inorganics (if required).

When collecting samples for VOCs, adjust the flow rate as low as possible without introducing air bubbles into the system. When filling the VOC containers, hold the cap in hand to minimize contamination, and direct the flow from the pump discharge tubing down the side of the sample container to minimize aeration. Fill all VOC sample containers to the top, ensuring a positive meniscus when the cap is screwed down on the container. Tap the filled VOC container, and invert several times to ensure no air bubbles are present in the sample container. If an air bubble is present, the VOC sample must be recollected using a fresh VOC sample container. If sampling for other analytes, the flow rate may be increased.

If dissolved inorganics are required, attach a new disposable 0.45-micrometer filter cartridge to the discharge line. Collect filtered samples last. Pre-rinse the disposable filter cartridges by running a minimum of 0.25 gallon of groundwater through them (collecting the groundwater into a waste bucket) prior to collecting the samples directly into the sample container. Alternate field filtration methods may be specified in the project-specific plans. Remove the pump and/or tubing from the monitoring well.



Post-Sampling

- Record the depth to water of well to determine whether the water level changed from the original reading.
- Close and lock the monitoring well or tap and record any monitoring well integrity concerns on the Field Report form and the Low-Flow Well Purging and Sampling Data form.
- Transfer purge, wash, and rinse water into a U.S. Department of Transportation-approved drum(s) and label. Separate drums are needed for liquid and solid wastes, in accordance with SOP WM-01, Field Handling of Investigation-Derived Waste. Do not add liquid wastes to drums containing solid wastes.

PROCEDURES FOR RECONNAISSANCE GROUNDWATER SAMPLING

Collect reconnaissance groundwater samples from borings using direct-push or hollow-stem auger drilling methods and 0.75- or 2-inch-inside-diameter temporary monitoring well casing and 0.010-inch slotted screen. In some cases, alternate well casing diameters or screen slot sizes may be appropriate based on the drilling equipment or project-specific requirements. Follow the instructions below for reconnaissance groundwater sample collection:

- Withdraw the drill casing when the desired sampling depth has been reached, so the temporary monitoring well screen is exposed to water-bearing material.
- Insert disposable polyethylene tubing to the approximate midpoint of the temporary monitoring well screen. Attach the appropriate length of pre-cleaned disposable silicon tubing from the polyethylene tubing to connect with the peristaltic or bladder pump.
- Set up the peristaltic or bladder pump in preparation for purging. Turn the pump to its lowest setting and turn on the pump. Begin purging slowly to prevent drawing down the water table.
- Purge each temporary monitoring well point using a peristaltic or bladder pump until visual turbidity is as low as possible, or until the temporary monitoring well is purged dry of water.
- Purge a minimum of 1 to 2 liters before sample collection, if possible. If the temporary monitoring well is completely dewatered during purging, collect samples when sufficient recharge has occurred to allow filling of the sample containers.
- Slow the pumping rate to less than 500 ml/min to reduce the potential for volatilization of chemicals during sample collection.
- Collect the sample as described above.
- If insufficient groundwater is available to collect a sample using a peristaltic or bladder pump (i.e., the boring pumps dry or cannot maintain a sufficient flow of less than 100 ml/min) or if the depth to groundwater exceeds the maximum practicable limit for sampling using a peristaltic or bladder pump, use a disposable polyethylene bailer lowered



into the monitoring well screen to collect a groundwater sample from the screened interval, if possible.

DOCUMENTATION

Document the monitoring well purging and sampling activities on the Low-Flow Well Purging and Sampling Data form and on the Field Report form. Track samples on a Chain of Custody form. Track waste generated during groundwater sampling on a Waste Inventory Tracking Sheet.

REFERENCES

- U.S. Environmental Protection Agency. 1992. *RCRA Ground-Water Monitoring: Draft Technical Guidance*. Office of Solid Waste. November.
- . 1996. *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*. EPA/540/S-95/504. April.
- . 2017. *Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*. EQASOP-GW4. September.

STANDARD OPERATING PROCEDURE SL-01

SOIL CORE SAMPLING

PURPOSE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to provide field personnel with the methodology for collecting and documenting soil core samples using a hollow-stem-auger drill rig, a direct-push drill rig, and a sonic drill rig. All drilling operations will be conducted by a licensed drilling subcontractor in accordance with subcontractor SOPs. This SOP presents the procedures that will be performed by Farallon field staff once the soil core has been collected by the drilling subcontractor. The step-by-step guidelines provided in this SOP are to be followed by the field crew conducting subsurface soil sampling.

EQUIPMENT AND SUPPLIES/REAGENTS

The following equipment is necessary to properly collect soil samples from borings:

- Personal protective equipment (PPE) as described in the site-specific Health and Safety Plan.
- Differential global positioning system, if required in project-specific plans. Discuss the methodology for recording the location of the sample point with the Project Manager before conducting the field work.
- Photoionization detector (PID) to monitor and record soil headspace readings.
- Applicable soil sampling equipment, including:
 - Stainless steel hand-auger.
 - Wooden or steel stakes to stabilize cores on table while sampling.
 - Folding table.
 - Utility knife.
 - Stainless steel spoons or scoops.
 - Six-mil plastic sheeting.
 - Resealable plastic bags.
 - Duct tape.
 - Aluminum foil.
 - Tape measure.
 - Five-gallon buckets, and scrub brushes.
 - Alconox phosphate-free cleanser.
 - Laboratory-provided certified pre-cleaned sample containers.



- Soil sample plunger and syringes for sampling volatile organic compounds (VOCs) using U.S. Environmental Protection Agency (EPA) Method 5035A.
- Materials necessary to provide required documentation, including:
 - Camera.
 - White board and dry-erase markers, if specified in project-specific plan.
 - Sample labels.
 - Field Report forms.
 - Boring Log forms.
 - Chain of Custody forms.
 - Chain-of-custody seals for the sample cooler(s).
- U.S. Department of Transportation-approved drum(s) for decontamination wastewater and excess soil cuttings. Separate drums are needed for liquid and solid wastes (refer to Farallon SOP WM-01, Field Handling of Investigation-Derived Waste). Liquid wastes should not be added to drums containing solid wastes.
- Decontamination equipment as specified in Farallon SOP EQ-01, Equipment Decontamination Procedures.
- Sampling support equipment (e.g., sample coolers, ice, bubble wrap, clear packing tape, heavy resealable plastic bags, razor knives, garbage bags, paper towels, distilled water, nitrile gloves).

DECONTAMINATION

Reusable equipment that will come into contact with soil boring samples or will be used to acquire soil samples is to be decontaminated before arrival at the site, between soil samples collected, upon relocation at the site, and upon demobilization from the site, in accordance with Farallon SOP EQ-01, Equipment Decontamination Procedures.

PROCEDURES

Prior to drilling, all underground utilities must be located, and cleared with an air-knife or other method approved by the Farallon Health and Safety Coordinator.

Collect soil samples from areas known or suspected to have the lowest concentrations of constituents of concern first, with areas of higher concentrations of constituents of concern sampled last, unless the Project Manager indicates a different project-specific sampling protocol. The procedures listed below may be modified, with approval from the field team lead and the Project Manager. Any modifications must be identified in the project-specific sampling plans or, at a minimum, details must be noted on the Field Report form.



Soil core collection methods differ for hollow-stem-auger, direct-push, and sonic drilling techniques, each summarized below:

- **Hollow-stem-auger:** Collect soil core samples using a standard 18-inch-length (6-inch waste barrel) Dames & Moore split-spoon sampler with a 2.5-inch inner diameter that can be used with or without brass or stainless steel liners.
- **Direct-push:** Collect soil core samples using 5-foot macrocore samplers with acetate sample liners.
- **Sonic:** Collect soil core samples using a standard 6-inch-diameter stainless steel sampling rod. Use a 2.5-, 5.0-, or 10-foot polyethylene liner inside the sampling rod for soil sample collection.

Record the specific drilling and soil sampling equipment used on the Boring Log form and on the Field Report form.

Setup

The instructions below are to be followed at each boring site:

- Don appropriate PPE as described in the site-specific Health and Safety Plan.
- Ensure that each borehole has been cleared to a minimum depth of 5 feet below ground surface using an air knife, per the Farallon health and safety policy.
- Set up a temporary sampling table adjacent to the drill rig to log and collect soil samples from the soil cores as they are recovered during drilling. During sunny conditions, consider using a portable canopy for protection from the sun. Lay plastic sheeting over the table to keep the surface clean and to prevent potential cross-contamination between borings and soil samples. Designate clean areas for decontaminated sampling equipment and laboratory-provided certified pre-cleaned soil sample containers.
- Set up 5-gallon buckets for decontaminating soil sampling equipment between samples. These decontamination buckets are separate from the buckets provided by the drillers for their split spoons and core barrels. (Refer to Farallon SOP EQ-01, Equipment Decontamination Procedures.)
- Calibrate the PID to monitor headspace for selected soil core samples in accordance with the equipment manual.

Sample Collection and Processing

The instructions listed below are to be followed for collecting samples using lined and unlined split-spoon and tube samplers:

- Don a new pair of nitrile sampling gloves for each individual soil sample collected, and prior to decontaminating sampling equipment to avoid potential cross-contamination.



- Ensure that the drillers have properly decontaminated all drill shoes and caps prior to initiating drilling operations. Drill shoes and caps must be decontaminated between sampling intervals and stations in accordance with Farallon SOP EQ-01, Equipment Decontamination Procedures. Replace dirty or ineffective decontamination water as needed throughout the workday.
- Ensure that the drillers position the sampling rig over the sample station and remove any surface material or debris that would interfere with sampling. Note on the Field Report form any surface material removed.
- Note on the Field Report form and the Boring Log forms any difficulties encountered during drilling operations. Include the number of blow counts (if applicable) or any resistance encountered during drilling operations.
- Place the core tube, core liner, or split spoon on a new piece of aluminum foil on the sample logging/processing table. If necessary, use wood or metal stakes as shims to stabilize the tube, liner, or split spoon on the sample logging/processing table.
- If a core liner is used, split the liner open with a decontaminated utility knife, taking care not to penetrate the soil in the liner with the blade or knife.
- Briefly examine the soil sample visually for obvious signs of contamination, and take PID readings.
- Take care to:
 - **Not** collect soil in contact with the sidewalls of the sampler or liner.
 - **Always** use decontaminated stainless-steel spoons or scoops to handle the soil within a given sample interval.
 - **Always** don a new pair of nitrile gloves before processing each sample interval in each soil core to prevent cross-contamination in the soil core.
- When sampling for VOCs, collect them as soon as possible after opening the core tube, split spoon, or core liner. Use a decontaminated stainless steel spoon to collect the VOC samples with minimal disturbance to soil by placing a representative amount of soil from the length and depth of the desired sample interval directly into the laboratory-provided VOC sample container with no headspace, and seal it tightly. Follow the sample collection guidelines provided by the manufacturer or the analytical laboratory when using a plunger-type sampling device in accordance with EPA Method 5035A.
- Retain approximately 100 grams of the soil sample in a heavy resealable plastic bag or glass sample container, shake the sealed bag to volatilize the contaminants in the soil, and wait approximately 5 minutes before measuring for headspace analysis using the PID (Washington State Department of Ecology 2011). Insert the PID probe tip into a small opening in the top of the bag, and record the PID units on the Boring Log form. Reseal the bag after taking the headspace reading in case further assessment of the sample is needed. Do not puncture the resealable plastic bag to obtain headspace readings.



- If specified in the project-specific plans, photograph each section of the boring, including in the photograph notations on a white board documenting sample location identifier, date, orientation, depth, and site markers.
- Describe the soil samples in accordance with ASTM International Standard D-2488-00, *Standard Practice for Description and Identification of Soils*.
- Record on the Field Report form any deviations from the project-specified sampling procedures or from this SOP, or any obstacle encountered.
- Examine the remaining soil core sample for lithology using the Unified Soil Classification System, and record the lithology on the Boring Log form.
- Discard excess soil cuttings in a labeled waste drum or a soil bin in accordance with Farallon SOP WM-01, Field Handling of Investigation-Derived Waste. Do not add soil to a liquid waste drum.
- Backfill the borehole, as appropriate.
- Upon completion of sampling at a boring, measure the boring's location to an on-site permanent datum, collect the location using the differential global positioning system, or have the sample location surveyed by a licensed surveyor.
- Decontaminate the soil sampling equipment, and don a new pair of sampling gloves before collecting each new soil sample.

DOCUMENTATION

Document the soil sampling activities on the Boring Log form, the Chain of Custody form, and the Field Report form.

REFERENCE

American Society for Testing Materials. 1989. *Standard Method for Penetration Test and Split-Barrel Sampling of Soils*. Method D-1586-11.

U.S. Environmental Protection Agency. 1987. *A Compendium of Superfund Field Operation Methods*. EPA Document No. 540-P-87-001. December 1.

Washington State Department of Ecology. 2011. *Guidance for Remediation of Petroleum Contaminated Sites*. Ecology Publication No. 10-09-057. Toxics Cleanup Program. September.

STANDARD OPERATING PROCEDURE WM-01

FIELD HANDLING OF INVESTIGATION-DERIVED WASTE

PURPOSE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to provide field personnel with the methodology for containerizing, labeling, and tracking investigation-derived waste (IDW), and for exchanging information with the Project Manager. IDW may include soil cuttings, purge water, development water, and/or decontamination water.

This SOP has been developed in compliance with Washington State Dangerous Waste Regulations (Chapter 173-303 of the Washington Administrative Code), Oregon Hazardous Waste Management Rules (Division 100 of Chapter 340 of the Oregon Administrative Record), Environmental Health Standards for the Management of Hazardous Waste (Division 4.5 of Title 22 of the California Code of Regulations), and the U.S. Environmental Protection Agency Resource Conservation and Recovery Act (Parts 239 through 282 of Title 40 of the Code of Federal Regulations).

EQUIPMENT AND SUPPLIES/REAGENTS

The following equipment is necessary to properly containerize, label, and track IDW:

- U.S. Department of Transportation-approved drum(s) constructed of a material that does not react with the contaminants of concern for the project. Farallon typically uses lined open-top steel drums. Use a polyethylene drum for a material suspected to be corrosive.
- Labels appropriate to the characteristics of the IDW as indicated by the Project Manager:
 - Non-Hazardous Waste Labels: For IDW known to be nonhazardous based on previous data and waste profiles.
 - Hazardous Waste or Washington State Dangerous Waste Labels: For IDW known to be hazardous/dangerous based on previous data and waste profiles.
 - On Hold Pending Analysis Labels: For waste not previously characterized, pending receipt of analytical results. On Hold Pending Analysis labels are temporary, and should be replaced with the applicable waste label once the waste has been characterized.
 - Major risk labels associated with the waste characteristics.
- Waste Inventory Tracking Sheet.
- Grease marking pencil or paint pen.
- Indelible ink pen.
- Crescent wrench, speed wrench, socket wrench, or other hand tool to seal the drum(s).



- Sampling supplies, if needed, including:
 - Stainless steel or plastic bowls and spoons for homogenizing soil and/or solids samples, depending on the analysis to be performed;
 - Glass or stainless steel container for homogenizing liquid samples, depending on the analysis to be performed; and
 - Stainless steel hand-auger or a glass tube, depending on the medium being sampled (i.e., soil/solids or liquid).

PROCEDURES

Follow the instructions below to inspect, label, and inventory IDW drums, and to containerize IDW:

- Inspect new drums brought to the site to ensure that they do not have dents or corrosion, and are in good condition. Lined or coated drums are preferred.
- Inspect drums remaining at the site from previous project work. Notify the Project Manager if a drum is leaking, damaged, or improperly labeled.
- Place soil and solids into separate drums from those containing liquids such as purge water, development water, and decontamination water. Do not add liquid IDW to drums containing soil or solids. Do not fill drums containing liquid IDW above 85 percent capacity, particularly in areas known to reach freezing temperatures.
- Discuss with the Project Manager whether chlorinated solvents or other contaminants of concern detected in areas of the site would cause IDW from that area to be characterized as hazardous/dangerous waste. Hazardous/dangerous waste should be drummed separate from nonhazardous/dangerous waste, where possible, to minimize the amount of hazardous/dangerous waste generated.
- Use a grease pencil or paint pen to clearly mark the lid and the label of each drum with a unique identifier such as a number or a letter. Verify that no two drums have the same identifier marked on the lid or label, including drums remaining from previous project work.
- Inventory each Farallon-generated drum and its contents on a Waste Inventory Tracking Sheet.
- Track any waste added to an existing drum on a Waste Inventory Tracking Sheet.
- Label each drum with a completed Non-Hazardous Waste, Hazardous Waste/Washington State Dangerous Waste, On Hold Pending Analysis, or other appropriate waste label. List the client's name as the Shipper or Generator, and the accumulation start date as the date when waste was first placed into the drum. If waste was added to an existing drum, add that date to the accumulation dates on the drum label. If the waste in the drum has been designated as hazardous/dangerous, add a major risk label(s) pertaining to the waste characteristics associated with that designation (e.g. flammable, reactive, corrosive,



toxic). Consult the Project Manager with questions about appropriate major risk labels. All labels should be placed with the top of the label toward the top of the drum. Do not place a drum label sideways or upside down.

Use care when drumming, labeling, and tracking IDW. Mistakes in the disposal of waste can result in serious legal and financial repercussions for Farallon and the client.

DRUM SAMPLING

Sampling and analysis of wastes for hazardous/dangerous waste characterization purposes is to be conducted in accordance with U.S. Environmental Protection Agency Publication No. SW-846, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. Samples collected in California for hazardous waste characterization are to adhere to the requirements specified in California Code of Regulations Sections 66261.21 to 66261.24 of Title 22, Characteristics of Hazardous Waste. Discuss with the Project Manager the specific analyses to be performed prior to sample collection. The instructions below are to be followed for drum sampling, using composite sampling techniques to sample soil, solids, and liquid wastes:

- Collect soil/solids samples from various locations and depths in the drum using a hand-auger or other decontaminated apparatus. Place all samples into a single decontaminated stainless steel bowl using decontaminated stainless steel tools, or into a plastic bowl using plastic spoons, depending on the analyses to be performed. Homogenize the samples in the bowl.
- Place samples of the homogenized soil/solids from the bowl into sample jars for analysis.
- Collect liquid samples from the drum using a glass sampling tube. Insert the tube to the base of the drum to fill the entire tube with liquid. Place the liquid into sample jars for analysis.

DRUM STORAGE

Follow the instructions below for drum storage:

- Label and store the drums in an area approved by the client.
- Store hazardous/dangerous waste drums in a secured area.

DOCUMENTATION

Document IDW drums on the Waste Inventory Tracking Sheet as described above. Provide the original Waste Inventory Tracking Sheet and the original field notes to the Project Manager.

REFERENCE

U.S. Environmental Protection Agency. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. Publication No. SW-846. Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015).

APPENDIX B
FIELD DOCUMENTATION FORMS

SAMPLING AND ANALYSIS PLAN
Block 79 East Site
701, 739, And 753 9th Avenue North
Seattle, Washington

Farallon PN: 397-035

MONITORING WELL CONSTRUCTION DATA

WELL/BORING NO: _____

PROJECT NO: _____

PROJECT NAME: _____

PERMIT NO: _____

DATE: _____

SITE ADDRESS: _____

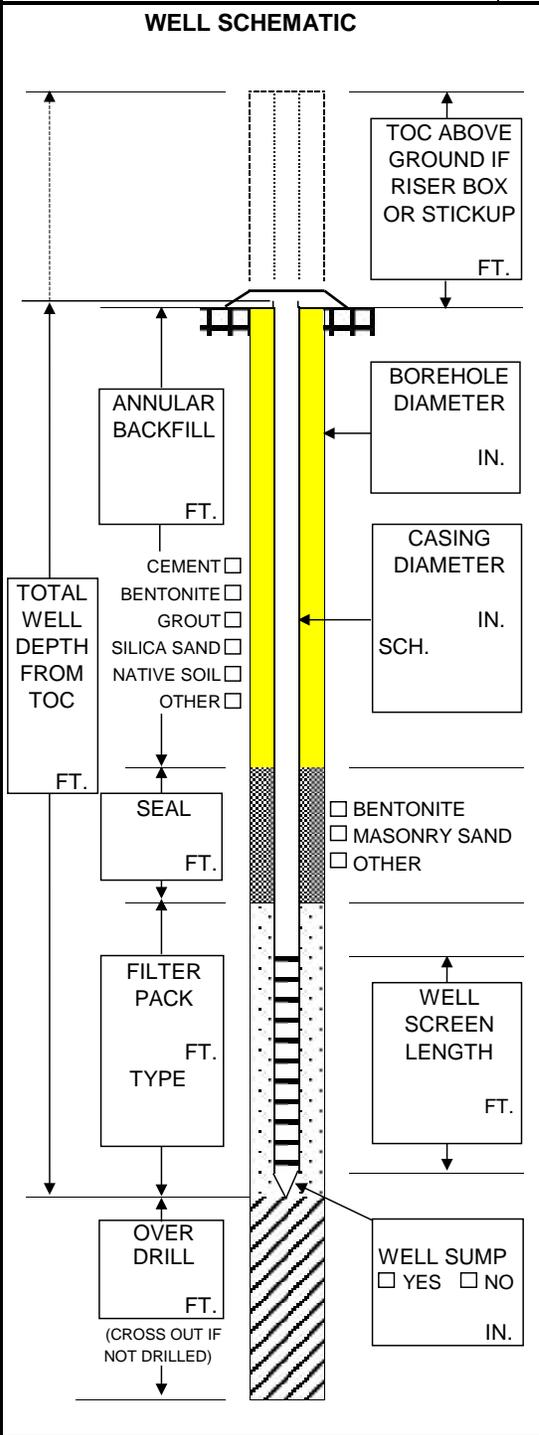
WELL SITE LOCATION PLAN:

SEC: _____ TWN: _____ RGE: _____ LAT: _____ LONG: _____

DRILLING CO: _____

DRILL CREW: _____

WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER



INSTALLATION DATA

DECON: STEAM CLEAN HIGH PRESSURE WASH
 SOAP WASH OTHER _____

CASING TYPE: PVC STAINLESS TEFLON OTHER
 JOINTS: THREADED WELDED COUPLED
 SCREWED OTHER _____

PIT CASING: YES NO DESCRIBE _____

WELL SCREEN: PVC STAINLESS TEFLON OTHER
 DIAMETER: 2" 4" 6" OTHER _____ IN
 SLOT: 0.010 0.020 OTHER _____ IN

DRILLING METHOD: SOLID STEM HOLLOW STEM MUD ROTARY
 AIR ROTARY DIRECT PUSH HAND AUGER
 OTHER _____

BIT SIZE: 2" 4" 6" 8" 12" OTHER _____ IN

DRILLING MUD: NONE WATER BENTONITE
 OTHER _____

CENTRALIZER: YES NO

COMPLETION: FLUSH MOUNT STICKUP RISER BOX
 LOCK TYPE: DOLPHIN MASTER KEY NO. _____
 OTHER _____

PAD: 2'X2' 4'X4' OTHER _____

CUTTINGS: DRUMMED NUMBER OF DRUMS _____
 SPREAD OTHER _____

DEVELOPMENT METHOD: NONE BAILING PUMPING AIR LIFT
 SURGE & BLOCK OTHER _____

TIME: 10 MIN 20 MIN OTHER _____ MIN
 AMOUNT: 5 GAL 10 GAL OTHER _____ GAL

WATER BEFORE: SILTY TURBID OPAQUE CLEAR
 WATER AFTER: SILTY TURBID OPAQUE CLEAR
 EVIDENT ODOR: YES NO TYPE _____

DEVELOPMENT WATER: DRUMMED NUMBER OF DRUMS _____
 SPREAD TREATED POTW OTHER _____

WATER LEVEL: INITIAL _____ FT BTOC BLS

DATE: _____ FT BELOW TOC
 DATE: _____ FT BELOW TOC

NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)

PREPARED BY: _____

APPENDIX F
HEALTH AND SAFETY PLAN

REMEDIAL INVESTIGATION WORK PLAN
BLOCK 79 EAST SITE
701, 739, 753 9th Avenue North
Seattle, Washington

Farallon PN: 397-035

APPENDIX F
HEALTH AND SAFETY PLAN

REMEDIAL INVESTIGATION WORK PLAN

Block 79 East Site
701, 739, 753 9th Avenue North
Seattle, Washington

Farallon PN: 397-035



SITE-SPECIFIC HEALTH AND SAFETY PLAN

PROJECT NO.:	397-035	START DATE:	April 6, 2023
PROJECT NAME:	Block 79 East Site	EXPECTED DURATION:	1 year
PROJECT ADDRESS, CITY, STATE:	701, 739, and 753 9th Avenue North Seattle, Washington	CLIENT NAME:	Block 79 LLC

(HASP expires 1 year from start date)

Fieldwork that Farallon Consulting, L.L.C. (Farallon) employees perform is conducted under the Farallon health and safety program, which includes the corporate Accident Prevention Plan and Hazardous Waste Operations Program. The program and these plans provide the basis upon which safety decisions should be made by Farallon personnel to maintain a safe and healthy work environment.

A site-specific Health and Safety Plan (HASP) is created to serve as a tool by which information about a project can be communicated to employees prior to field activities. As allowed under 29 CFR 1910.120(b)(1)(ii)(C), this HASP supplements the Farallon health and safety program and does not repeat standard operating procedures for safety and health. The information contained in this HASP is site-specific and directly applicable to the proposed scope of work.

Due to the potentially hazardous nature of the site and the activities occurring thereon, it is not possible to discover, evaluate, or provide protection for all possible hazards that may be encountered. Strict adherence to the health and safety guidelines set forth herein will reduce, but does not eliminate, the potential for injury. The health and safety guidelines in this HASP are prepared specifically for this site and its known or suspected conditions, and the HASP must be amended if conditions change.

This HASP has been prepared for the use of Farallon and its employees. Farallon personnel working at the job site must review and be responsible for complying with and implementing the provisions in this HASP. Safety briefings at the job site should include discussion of the HASP, and Farallon employees will sign Attachment 1.

PREPARED BY: Jenner Smith
Print name

REVIEWED BY: Stuart Brown Project Manager	<u>Stuart Brown</u>	<u>March 6, 2023</u>
	Signature	Date

APPROVED BY: Javan Ruark State Health and Safety Coordinator	<u>Javan Ruark</u>	<u>March 6, 2023</u>
	Signature	Date



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ATTACHMENTS

- Attachment 1 Health and Safety Plan Acknowledgment and Agreement Form
- Attachment 2 Standard Job Site Protocols
- Attachment 3 Task-Specific Job Hazard Analyses
- Attachment 4 Health-Based and Monitoring Information for Potential Site Contaminants
- Attachment 5 Air Monitoring Log
Calibration/Check Log – Air Monitoring Equipment
- Attachment 6 Utility Clearance Log
- Attachment 7 Incident Report Form
- Attachment 8 Near Miss Report Form



1.0 CONTACT AND EMERGENCY INFORMATION

1.1 PROJECT CONTACTS

TITLE NAME	CONTACT INFORMATION	GENERAL PROJECT RESPONSIBILITIES
Site Health and Safety Officer Jenner Smith	Cell: (540) 460-0474	Implements HASP and conducts ongoing inspections of site conditions to identify visible or potential hazards. Initiates actions to mitigate or eliminate hazards. Provides health and safety support to other on-site personnel. Communicates regularly with project management team.
Project Manager Stuart Brown	Office: (425) 295-0833 Cell: (425) 606-7463	Ensures that field personnel have sufficient training and qualifications to perform tasks. Communicates with field team to confirm that identified health and safety protocols are implemented. Provides support for incidents, near misses, and other safety issues.
State Health and Safety Coordinator Javan Ruark	Office: (425) 295-0827 Cell: (425) 765-1898	Reviews and approves HASP. Provides support in implementing HASP. Provides support for incidents, near misses, and other safety issues.
Client Contact Corey Wilson	Cell: (508) 264 1516	Provides 1) knowledge of known or suspected site hazards; 2) access to the site; 3) information regarding available emergency supplies or protocols at the site; and 4) known analytical data from work performed by others.

1.2 LOCAL EMERGENCY CONTACT TELEPHONE NUMBERS

EMERGENCY CONTACT	TELEPHONE NO.
West Precinct-Seattle Police Department	Emergency: 911 Non-Emergency: (206) 625-5011
Seattle Fire Station 2	Emergency: 911 Non-Emergency: (206) 386-1400
Poison Control Center	(800) 222-1222
National Response Center	(800) 424-8802
Utility Notification Center (Washington).....	(811) or (800) 424-5555
Washington Ecology Spill Reporting	(800) 258-5990



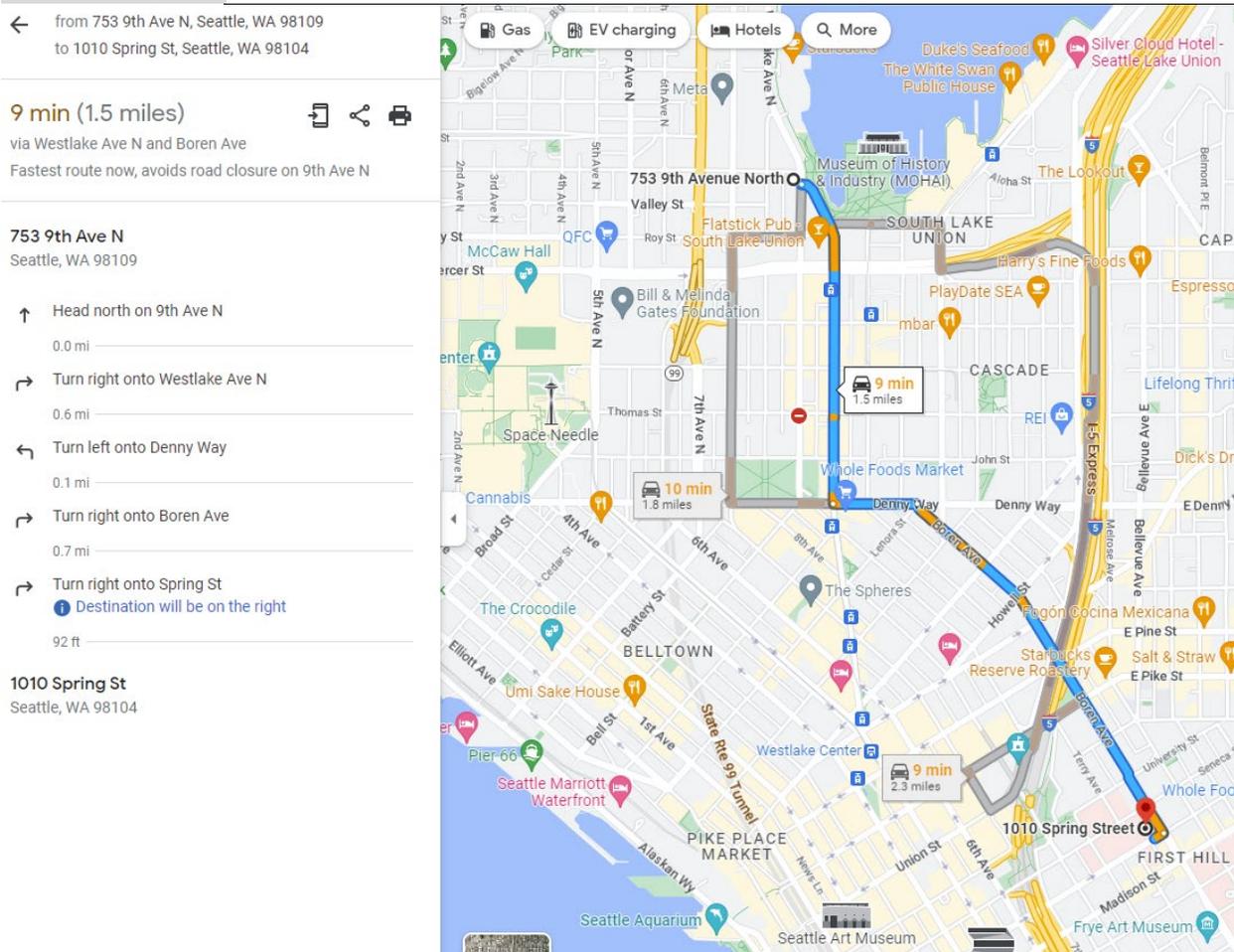
1.3 NEAREST HOSPITAL / EMERGENCY MEDICAL CENTER

Facility Name: Virginia Mason Emergency Center

Street Address: 1010 Spring Street

City, State: Seattle, Washington 98101

Phone No. : (206) 583-6433





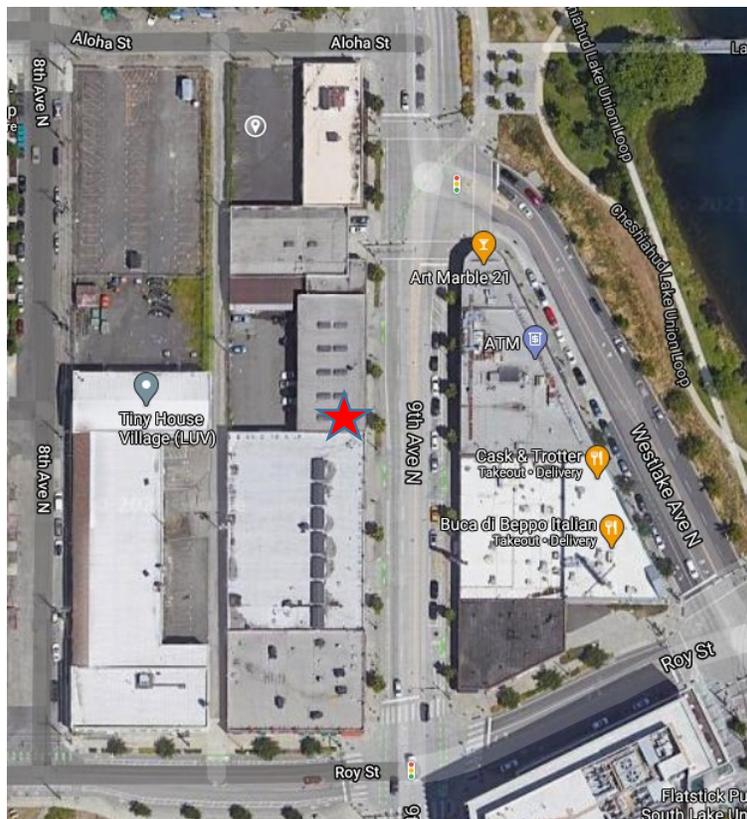
1.4 EMERGENCY RESPONSE AND EVACUATION PLAN

Farallon personnel and subcontractors working on the site are to be aware of site-specific emergency and evacuation procedures, including alarm systems and evacuation plans and routes. If an incident occurs that requires emergency response, such as a fire or spill, **CALL 911 and request assistance**. Farallon staff, subcontractors, and/or others working in an area where an emergency occurs are to evacuate to a safe location away from the incident area, preferably upwind, and take attendance. Farallon staff, subcontractors, and/or contractors may not reenter the scene of the emergency without specific approval from emergency response personnel.

Subcontractors have the responsibility to account for their own employees and provide requested information to emergency response personnel immediately upon request.

For this project, the emergency evacuation gathering location is in the pedestrian area across 9th Avenue North northeast of the site as marked by the red star in the figure below.

If the emergency causes the route to be obstructed, Farallon personnel and subcontractors are to move to an open area upwind of the hazard area, and remain there until instructed by emergency response personnel (e.g., police, fire, ambulance personnel, paramedics) to do otherwise.





2.0 PROJECT INFORMATION

2.1 SITE LOCATION AND CURRENT USE

The Block 79 East Property comprises King County Parcel Nos. 4088803435, 4088803565, 4088803440, and 4088803485, totaling approximately 1.52 acres in Seattle, King County, Washington. The Block 79 East Property is bordered on the north by Aloha Street, to the east by 9th Avenue North, to the South by Roy Street, and to the west by an alley way followed by a commercial property owned by Seattle City Light.

2.2 SITE HISTORY

Several investigations that evaluated one or more individual parcels that now compose the Block 79 East Property were previously performed. For clarity, each King County parcel currently composing the Block 79 East Property was assigned a name for reference:

- Parcel No. 4088803435, 701 9th Avenue North, Buca di Beppo Property;
- Parcel No. 4088803440, 721 9th Avenue North, Ducati Property (includes former Public Garage);
- Parcel 4088803485, 739 9th Avenue North, Maaco Property; and
- Parcel 88803565, 753 9th Avenue North, Former Bayshore Volvo Property.

The summary of historical uses of the Block 79 East Property is based on review of documentation of previous investigations performed by others.

- Buca di Beppo Property historical uses that may have involved handling of hazardous substances include operation as an automotive/truck repair shop between approximately 1920 and 1969. Potential points of release for hazardous substances include a suspected waste-oil underground storage tank (UST) in the partial basement, a suspected UST associated with the observed suspect fill port on the northeastern portion of the Ducati Property, and the floor drain on the north-central portion of the Buca di Beppo Property.
- Ducati Property historical uses that may have involved handling of hazardous substances include auto sales, parking, and repair activities from approximately 1969 to 2020. Potential points of release for hazardous substances include the hydraulic hoists, existing oil-water separators connected to the municipal sewer, and the former greasing pit.
- Maaco Property historical uses that may have involved handling of hazardous substances include tire service circa approximately 1924 and 1925, vehicle repair circa approximately 1930, truck welding and equipment manufacturing and sales from approximately 1940 through 1980; vehicle sales and service between approximately 1979 and 1996; and vehicle collision body repair and painting from approximately 1996 through 2020. Potential points of release for hazardous substances include the existing catch basins and oil-water separator on the northwestern portion of the Maaco



Property, the former heating oil UST on the central portion of the Maaco Property, and the trench drains on the northern portion of the property.

- Bayshore Volvo Property historical uses that may have involved handling of hazardous substances include auto or motorcycle sales and service from approximately 1950 through 1992. Potential points of release for hazardous substances include the existing catch basin, and former USTs.

2.3 SCOPE OF WORK

Farallon's role in the next phase of work is to conduct a remedial investigation in accordance with the Draft Remedial Investigation Work Plan for the South Lake Union Block 79 East Site (Scope of Work). The specific activities that Farallon will perform are listed below:

- Conduction public and private utility locates to clear boring locations and provide additional information pertaining to the location of subsurface utilities in work areas;
- Advancing borings on the Block 79 East Property and in the rights-of-way;
- Installing monitoring wells on the Block 79 East Property and in the rights-of-way; and
- Collecting groundwater samples from the monitoring wells.



3.0 JOB HAZARD ANALYSIS

A job hazard analysis (JHA) is a formal process that helps identify the most hazardous tasks at a job site, determine what the hazards and potential consequences of these tasks are, and develop corrective and preventative measures to eliminate or reduce the likelihood of accidents, injuries, and illnesses. A hazard is anything in the workplace that has the potential to cause harm to workers. JHAs should consider physical, chemical, biological, radiological, and other hazards that may be present. Conducting regular JHAs will help reduce worker injuries, illnesses, and unsafe work practices.

3.1 TASK-SPECIFIC HAZARDS

Many of the activities that Farallon personnel perform at job sites are routine in nature with well-known hazards. Farallon has prepared JHAs for common activities to support evaluation of site-specific hazards. All Farallon field work will be performed in accordance with the Standard Job Site Protocols found in Attachment 2.

Additionally, when checked below, the applicable JHAs must be included in Attachment 3 and will be reviewed with Site personnel prior to conducting field work:

Investigation Activities

- Environmental drilling with soil sampling
- Groundwater sampling – reconnaissance and monitoring wells
- Excavation activities
- Soil gas and subslab soil gas sampling
- Soil sampling with hand tools (no drilling)
- Other:

Cleanup Activities

- Underground storage tank decommissioning
- Excavation/construction observation
- Remediation systems installation, pilot tests, and operation and maintenance
- Remedial injections
- Other:



3.2 SITE- OR PROJECT-SPECIFIC HAZARDS

Other than hazards inherent in the work to be performed, Farallon has not identified Site- and/or project-specific hazard(s).



4.0 SITE CONTAMINANTS AND MONITORING REQUIREMENTS

4.1 SITE CONTAMINANTS

The following chemicals or compounds (“Site contaminants”) may be present at the Site due to current Site activities or the presence of known or suspected contamination and may pose a risk to workers during performance of the scope of work:

- Petroleum hydrocarbons as diesel- and oil-range organics;
- Petroleum hydrocarbons as gasoline-range organics;
- Tetrachloroethene;
- Trichloroethene;
- Cis-1,2-dichloroethene;
- Vinyl chloride;
- Benzene, toluene, ethylbenzene, and xylenes;
- Resource Conservation and Recovery Act metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver); and
- Carcinogenic polycyclic aromatic hydrocarbons.

The table included in Attachment 4 provides health-based and air monitoring information for a variety of contaminants. This table should be reviewed for the identified Site contaminants prior to the start of work and any questions directed to the Site Health and Safety Officer.

4.2 MONITORING REQUIREMENTS

Based on the potential presence of the Site contaminants, the following monitoring protocols will be implemented.

4.2.1 Air Monitoring – Volatile Organic Vapors

As identified in Section 4.1, volatile organic vapors may be present in the breathing zone of Farallon personnel during field activities, which should be evaluated through air monitoring. Air monitoring equipment will consist of the following:

- Photoionization detector (PID)
- Colorimetric Detector Tubes; type
(fill-in): _____



The following table provides general protocols for conducting air monitoring in the breathing zone for Farallon personnel.

Period when monitoring is required	The duration of field activities that can generate and/or sustain volatile organic vapors in the breathing zone of Farallon personnel.
Monitoring Frequency and Location	<p>Sampling should be continuous during the project while disturbing potentially contaminated soil, uncovering and/or removing tanks and piping, drilling, or managing other contaminated media such as groundwater or soil gas.</p> <p>Breathing zone: take measurements at least every 15 minutes. Exclusion zone boundaries: take measurements every 30 minutes. When collecting soil and groundwater samples, take measurements continuously.</p>
Action Levels if using PID only	<u>10 parts per million (ppm)</u> in breathing zone, sustained for at least 2 minutes: Stop work (including shutting down equipment if warranted), step away from zone for 15 minutes, and then take new readings. If PID measurements remain sustained at <u>10 ppm or greater</u> , contact the project manager to discuss how to proceed.
Action Levels if using PID and colorimetric detector tubes	<p><u>10 ppm</u> in breathing zone, sustained for at least 2 minutes: collect a colorimetric detector tube for appropriate contaminant of concern (typically benzene or vinyl chloride are used as indicator chemicals). Stop work if tube indicates <u>> 1 ppm</u> for benzene or vinyl chloride and contact the project manager to discuss how to proceed.</p> <p>Stop work if PID reaches or exceeds <u>50 ppm</u> above background in breathing zone and there is no discoloration of colorimetric detector tubes.</p>
Respirator Use	If the air monitoring results suggest that the use of respirators is warranted to mitigate hazardous levels of volatile organic vapors in breathing zones, the project manager is responsible for updating this HASP to confirm the type of respirator cartridge, rest intervals, decontamination procedures, and other applicable topics. The use of respirators must be coordinated with Farallon's medical monitoring program and include yearly respirator fit testing.

Logs for recording air monitoring measurements and air monitoring equipment calibration are found in Attachment 5.



4.2.2 Personnel Monitoring

Personnel monitoring will not need to be conducted.



5.0 PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) is selected based on the contaminant type(s), concentration(s) in applicable matrix (soil, water, air) and the known route(s) of entry into the human body. Project personnel are not permitted to use lower levels of protection from the specified levels of protection without the prior approval of the Site Health and Safety Officer.

PPE Level:	Modified Level D
Safety Boots:	Required
Hard Hat:	Required when working around heavy equipment or locations where there is risk for head injury
Safety Vest:	Required when personal visibility is necessary
Safety Glasses:	Required
Hearing Protection:	Required when working around loud equipment
Gloves:	Nitrile gloves are used during contact with potentially contaminated media and surfaces
Additional Site-Specific/Client-Requirements:	None identified
Level C PPE (respirator and chemical-resistant clothing):	Not required for this project. If air monitoring readings exceed action levels, this HASP must be modified to reflect requirements for proceeding under more protective PPE.



6.0 UTILITIES

When conducting subsurface or ground disturbing activities such as drilling or excavation, Farallon project tasks include overseeing subsurface surveys for underground utilities and structures. This is accomplished by filing a public utility notification request and by hiring a private utility locate service. When Farallon files the public utility notification, this alerts the underground utilities owners to mark the facilities on public property as required by law. Owners of underground utilities are **not required** to mark existing service laterals or utilities installed by the property owner. Therefore, private utility locate services must be hired to scan for service laterals and other buried utilities (e.g., on-Site electric distribution lines, irrigation pipes) on private property.

Public utility notification can be filed as early as 14 days prior to conducting the work, and typically is required to be filed at least 2 business days before the field work will occur (varies by state). Please provide the following information:

For projects requiring ground disturbance activities Farallon requires the Utility Locate Clearance Log to be completed and saved to the project folder (Attachment 6). In addition to the Log, please provide the following information:

Public Utility Notification Ticket No.: TBD

Date that **private** utility locate will be performed: TBD

A copy of the public utility notification ticket should be included with paperwork kept on the Site during field activities.

Before starting work, identify and discuss the locations of utility and product line shutoff valves and switches on the job site with other field personnel.

6.1 INVESTIGATION LOCATIONS AND UTILITIES

Farallon’s project team should identify suitable location(s) of borings and other subsurface work through a thorough review of available construction drawings and known utilities, tanks, product lines, and other known or suspected subsurface obstructions. Additionally, at least the upper 5 feet of each boring will be cleared by one of the following methods:

- Hand auger; or
- Vactor truck and air knife.

Occasionally, project, Site, or regulatory requirements may not allow for hand-clearing the upper 5 feet of a boring. The project team will consult with the Farallon State Health and Safety Coordinator to request a variance to deviate from this subsurface work-related requirement.



7.0 INCIDENTS / NEAR MISSES

Farallon employees are required to report any injury sustained while performing project work or work-related illness to the Project Manager, their Group Manager, and the Corporate Health and Safety Officer, regardless of the seriousness of the incident. The employee will complete an Incident Report form to report the incident, provided in Attachment 7.

A “near miss” is defined as an incident in which no personal injury was sustained and no property damage was incurred, but where personal injury and/or property damage could have occurred, given a slight change in time or position. Employees are encouraged to complete a Near Miss Report form, provided in Attachment 8.



8.0 SITE CONTROLS

8.1 WORK ZONE CONTROL

Farallon personnel will secure and mark work zones so that the zones are visible to site occupants and visitors and are accessible only to personnel scheduled to be in the work zone. This is intended to prevent undesirable interface between pedestrian traffic and project workers and equipment. Devices to secure zones may include:

- Cones;
- Tubular markers; and
- Barricade tape.

If site conditions, such as hazardous levels of Site contaminants, warrant separate work zones, this HASP must be modified to identify Exclusion (Hot), Contamination Reduction (Warm), and Support (Cold) Zones. Modifications must include decontamination procedures for personnel and equipment.

8.2 TRAFFIC CONTROL

Work on the Site will be conducted in areas in or near parking lots and private roadways/lanes. Traffic control/warning devices will be placed around the work area to prevent undesirable interface between pedestrian and automotive traffic and project workers and equipment. These devices may include:

- Cones;
- Tubular markers (construction candles);
- Barricades;
- Temporary fencing; and
- Barricade tape.

The traffic control/warning devices will be placed around the work in such a way that traffic access is inhibited (i.e., place cones less than 8 feet apart so cars cannot easily drive through work area without moving a cone). Barricade tape or temporary fencing will be used to inhibit access to the work area in locations where pedestrians will be encountered.

8.3 DECONTAMINATION

Farallon personnel are directed to conduct field work in a manner that minimizes employee contact with hazardous substances or with equipment that has contacted hazardous substances. Typical site decontamination procedures include the use of Alconox or a similar product to clean field equipment prior to and following use at a job site. Farallon personnel use disposable gloves to minimize cross contamination between sample locations.



Site-Specific Health and Safety Plan

If site conditions warrant upgraded decontamination procedures, this HASP must be modified to describe the equipment and personnel procedures. The corporate Hazardous Waste Operations Program provides detailed procedures for this purpose.



9.0 ADDITIONAL ELEMENTS

Information contained in this section is required under OSHA HAZWOPER rule 29 CFR 1910.120.

9.1 EMPLOYEE TRAINING

Farallon maintains an employee training program for safety-related topics. Employees will be assigned to perform project tasks for which they have been provided training. Employees are encouraged and empowered to speak up if they believe they need training or additional instruction in order to safely perform a task.

Farallon employees who perform field work at sites that may fall within the definition of 29 CFR 1910.120 will receive training that will include:

- Names of personnel and alternates responsible for Site safety and health;
- Safety, health, and other hazards present on the Site;
- Use of PPE;
- Work practices by which the employee can minimize risks from hazards;
- Safe use of engineering controls and equipment on the Site;
- Medical surveillance requirements, including recognition of symptoms and signs that might indicate overexposure to hazards; and
- Instruction on how to review and implement the Site-specific HASP.

Additional safety training is provided in many venues, including:

- New-hire orientation;
- Annual safety training;
- Project-specific instruction;
- Safety moments during staff meetings; and
- Tailgate safety briefings.

Training records and employee training certificates are maintained by the corporate health and safety management team. These records are available upon request for project-specific purposes.



9.2 MEDICAL SURVEILLANCE

Farallon conducts a medical surveillance program for employees engaged in hazardous waste field operations. The following employees (at a minimum) are covered by the medical surveillance program:

- Employees who are or may be exposed to hazardous substances or health hazards at or above an OSHA Permissible Exposure Level (PEL), or above the published exposure levels for a substance for which there is no PEL, without regard to respirator use, for 30 days or more per year;
- Employees who wear a respirator for 30 days or more per year, or as required by state-specific rules; and
- Employees who are injured, become ill, or develop signs or symptoms due to possible overexposure involving hazardous substances or health hazards from a hazardous waste operation.

The corporate Hazardous Waste Operations Program provides additional information on Farallon's medical surveillance program. The Corporate Health and Safety Officer works with Farallon Human Resource to manage medical surveillance and maintain confidential records.

9.3 CONFINED SPACE ENTRY

A confined space is defined as a space meeting all of the following criteria:

- The space is large enough and arranged so as to allow an employee to fully enter the space and conduct work;
- The space has limited or restricted entry or exit (e.g., tanks, vessels, silos, storage bins, hoppers, vaults, excavations, pits); and
- The space is not designed primarily for human occupancy.

Farallon personnel occasionally encounter confined-space entry conditions when performing environmental media sample collection from excavations, or when performing in-place underground storage tank closure work. In such situations, the work must be conducted in accordance with Farallon's Confined-Space Entry Program, which requires specialized training for employees performing such work.

Farallon does not perform permit-required confined space (PRCS) entry work. Exceptions to this rule must be approved in advance by the Corporate Health and Safety Officer and prior to fieldwork commencing.

9.4 DRUM/CONTAINER HANDLING AND SPILL CONTAINMENT

It is Farallon's policy to minimize the number of situations in which employees could come into contact with drums or containers that may contain unknown chemicals or substances.



Typical situations in which Farallon field personnel handle drums are waste-handling procedures following boring or monitoring well installation and sampling activities. Soil cuttings, monitoring well purge and development water, and equipment decontamination water typically are placed into drums pending disposal. In these instances, the contaminants and the range of potential concentrations typically are known. The Site-specific HASP, Work Plan, Sampling and Analysis Plan, or Waste Management Plan should present specific procedures for sampling the contents of the drums or containers. In instances where drums or containers having unknown contents are discovered at a site, Farallon typically hires a subcontractor with expertise in sampling and characterizing drum and container contents.

9.5 WORKPLACE VIOLENCE

Farallon is committed to providing employees with a safe work environment and does not tolerate any type of workplace violence committed by or against employees or other personnel at a site. Workplace violence is any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at the work site. It ranges from verbal abuse to physical assaults and even homicide.

If a Farallon employee feels threatened or unsafe at a project site, the employee should remove themselves from the situation and notify the project manager immediately. Employees who experience actual or threatened violent behavior should immediately report it to the appropriate authorities.

In the event of an active shooter situation, employees are encouraged to follow guidelines provided by the U.S. Department of Homeland Security.

Active Shooter Guidance

1. Run	2. Hide	3. Fight
<ul style="list-style-type: none"> • Have an escape route and plan in mind. • Leave your belongings behind. • Keep your hands visible. 	<ul style="list-style-type: none"> • Hide in an area out of the active shooter's view. • Block entry to your hiding place and lock the doors. 	<ul style="list-style-type: none"> • As a last resort and only when your life is in imminent danger. • Attempt to incapacitate the active shooter. • Act with physical aggression and throw items at the active shooter.
<p>CALL 911 WHEN IT IS SAFE TO DO SO</p>		



10.0 LIMITATIONS

This Health and Safety Plan has been prepared by and for the sole use of Farallon Consulting, L.L.C. and its employees. Use of the information or protocols contained herein by any individual or entity other than the intended user is at the sole risk of that individual or entity. Entities and individuals other than Farallon and its employees must rely on their own safety programs and Health and Safety Plans. Laws, regulations, and standards pertaining to the information or protocols contained in this Health and Safety Plan may differ for other states or localities and other types of work. Any individuals or entities other than the intended users who consult this Health and Safety Plan are encouraged to independently review the pertinent laws, regulations, and standards. Under no circumstances shall Farallon Consulting, L.L.C., its officers, or employees be liable for any consequential, indirect, special, incidental, or punitive damages arising out of or related to the use of this Health and Safety Plan by anyone other than its intended user(s).

ATTACHMENT 1

Health and Safety Plan Acknowledgement and Agreement Form

HEALTH AND SAFETY PLAN ACKNOWLEDGMENT AND AGREEMENT FORM

(All Farallon and subcontractor personnel must sign this form prior to commencing work.)

Farallon Employees: In signing this document, you indicate that you have reviewed the contents of this HASP and will work to implement and comply with the requirements in the HASP.

Farallon Subcontractors and others on the site: In signing this document, you indicate acknowledgement that:

- Non-Farallon personnel are expected to develop and work under their own safety program.
- The Farallon HASP provides general information about potential hazards at the job site but does NOT provide information pertaining to all of the hazards that a contractor's employees may be exposed to as a result of their work.
- You are required to coordinate activities and practices with the project Site Health and Safety Officer (SHSO).
- You are required to inform Farallon of any hazards you are aware of or that your work on the site might possibly pose to Farallon employees.
- You can be prohibited by the SHSO or other Farallon personnel from working on this project for unsafe work practices or failure to comply with Farallon jobsite requirements.

✓ SHSO	Company Name	Name (Print)	Signature	Date

HEALTH AND SAFETY PLAN ACKNOWLEDGMENT AND AGREEMENT FORM

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- You can be prohibited by the SHSO or other Farallon personnel from working on this project for unsafe work practices or failure to comply with Farallon jobsite requirements.

✓ SHSO	Company Name	Name (Print)	Signature	Date

ATTACHMENT 2

Standard Job Site Protocols

Job Hazard Analysis – Standard Job Site Protocols Issued September 23, 2020

Farallon developed this Job Hazard Analysis to address typical hazards associated with performing field work. Farallon expects each employee to be safety-focused and to consider safety the top priority when working at a job site.

Safety Briefing	A safety briefing will be held at the job site at the beginning of each day and documented in field notes. On multiple-day projects on the same job site, a safety briefing is required each day.
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The following hazards may be present at any type of Farallon job site:

Potential Hazards	Preventive Measures
Inclement weather (e.g., hard rain, snow, ice, high winds, electrical storms, extreme temperatures)	<ul style="list-style-type: none"> • Check weather reports daily. Evaluate appropriateness of proceeding with field work during inclement weather. • Before driving, be sure that all windows of vehicles are clear of snow and other debris or obstructions. • Drive at the speed limit or less, as needed, to keep a safe distance from any vehicles ahead. Allow enough space between vehicles for braking and slowing. • Stop work and shut down the job site if high winds, lightning, or other adverse weather conditions may pose a risk to site workers.
Exposure to chemicals and contaminants	<ul style="list-style-type: none"> • Wash hands before eating, drinking, using tobacco products, or otherwise touching one's face. • Before beginning the project, evaluate whether it is safe to wear contact lenses. Most hazards related to eye protection require personal protective equipment upgrades regardless of contact lens use. • Before conducting field work, evaluate whether respirators may be used, to determine whether facial hair may need to be removed so it does not interfere with proper respirator fit.
Cold stress	<ul style="list-style-type: none"> • See page 2 for OSHA Quick Card.
Heat stress	<ul style="list-style-type: none"> • See page 3 for OSHA Quick Card.
Lone worker	<ul style="list-style-type: none"> • During HASP preparation, evaluate risks of working alone at a job site. Implement measures to mitigate risks. • Use the buddy system or re-evaluate tasks if the threat of personal harm cannot be mitigated. • Carry a cell phone or radio on person at all times. • Carry a whistle or other noise-making device if necessary. • In remote areas, carry a GPS-enabled beacon (set up reporting in office prior to field work). • Know the route to the closest hospital.
Plants and insects	<ul style="list-style-type: none"> • Be aware of poisonous plants. • Apply insect repellent. • Carry first-aid ointment or barrier cream. • Do not wear cologne or other scented products. • Avoid eating in areas where bees or wasps are located.



Protecting Workers from Cold Stress

Cold temperatures and increased wind speed (wind chill) cause heat to leave the body more quickly, putting workers at risk of cold stress. Anyone working in the cold may be at risk, e.g., workers in freezers, outdoor agriculture and construction.

Common Types of Cold Stress

Hypothermia

- Normal body temperature (98.6°F) drops to 95°F or less.
- **Mild Symptoms:** alert but shivering.
- **Moderate to Severe Symptoms:** shivering stops; confusion; slurred speech; heart rate/breathing slow; loss of consciousness; death.

Frostbite

- Body tissues freeze, e.g., hands and feet. Can occur at temperatures above freezing, due to wind chill. May result in amputation.
- **Symptoms:** numbness, reddened skin develops gray/white patches, feels firm/hard, and may blister.

Trench Foot (also known as Immersion Foot)

- Non-freezing injury to the foot, caused by lengthy exposure to wet and cold environment. Can occur at air temperature as high as 60°F, if feet are constantly wet.
- **Symptoms:** redness, swelling, numbness, and blisters.

Risk Factors

- Dressing improperly, wet clothing/skin, and exhaustion.

For Prevention, Your Employer Should:

- Train you on cold stress hazards and prevention.
- Provide engineering controls, e.g., radiant heaters.
- Gradually introduce workers to the cold; monitor workers; schedule breaks in warm areas.

For more information:



OSHA 3156-02R 2014



How to Protect Yourself and Others

- Know the symptoms; monitor yourself and co-workers.
- Drink warm, sweetened fluids (no alcohol).
- Dress properly:
 - Layers of loose-fitting, insulating clothes
 - Insulated jacket, gloves, and a hat (waterproof, if necessary)
 - Insulated and waterproof boots

What to Do When a Worker Suffers from Cold Stress

For Hypothermia:

- Call 911 immediately in an emergency.
- To prevent further heat loss:
 - Move the worker to a warm place.
 - Change to dry clothes.
 - Cover the body (including the head and neck) with blankets, and with something to block the cold (e.g., tarp, garbage bag). Do **not** cover the face.
- If medical help is more than 30 minutes away:
 - Give warm, sweetened drinks if alert (no alcohol).
 - Apply heat packs to the armpits, sides of chest, neck, and groin. Call 911 for additional rewarming instructions.

For Frostbite:

- Follow the recommendations “For Hypothermia”.
- Do not rub the frostbitten area.
- Avoid walking on frostbitten feet.
- Do not apply snow/water. Do not break blisters.
- Loosely cover and protect the area from contact.
- Do not try to rewarm the area unless directed by medical personnel.

For Trench (Immersion) Foot:

- Remove wet shoes/socks; air dry (in warm area); keep affected feet elevated and avoid walking. Get medical attention.

For more information:



Job Hazard Analysis – Standard Job Site Protocols
Issued September 23, 2020



Protecting Workers from Heat Stress

Heat Illness

Exposure to heat can cause illness and death. The most serious heat illness is heat stroke. Other heat illnesses, such as heat exhaustion, heat cramps and heat rash, should also be avoided.

There are precautions that can be taken any time temperatures are high and the job involves physical work.

Risk Factors for Heat Illness

- High temperature and humidity, direct sun exposure, no breeze or wind
- Heavy physical labor
- No recent exposure to hot workplaces
- Low liquid intake
- Waterproof clothing

Symptoms of Heat Exhaustion

- Headache, dizziness, or fainting
- Weakness and wet skin
- Irritability or confusion
- Thirst, nausea, or vomiting

Symptoms of Heat Stroke

- May be confused, unable to think clearly, pass out, collapse, or have seizures (fits)
- May stop sweating

To Prevent Heat Illness:

- Establish a complete heat illness prevention program.
- Provide training about the hazards leading to heat stress and how to prevent them.
- Provide a lot of cool water to workers close to the work area. At least one pint of water per hour is needed.



For more information:
OSHA Occupational Safety and Health Administration
www.osha.gov (800) 321-OSHA (6742)

OSHA 3164-08B 2017



- Modify work schedules and arrange frequent rest periods with water breaks in shaded or air-conditioned areas.
- Gradually increase workloads and allow more frequent breaks for workers new to the heat or those that have been away from work to adapt to working in the heat (acclimatization).
- Designate a responsible person to monitor conditions and protect workers who are at risk of heat stress.
- Consider protective clothing that provides cooling.



How to Protect Workers

- Know signs/symptoms of heat illnesses; monitor yourself; use a buddy system.
- Block out direct sun and other heat sources.
- Drink plenty of fluids. Drink often and BEFORE you are thirsty. Drink water every 15 minutes.
- Avoid beverages containing alcohol or caffeine.
- Wear lightweight, light colored, loose-fitting clothes.



What to Do When a Worker is Ill from the Heat

- Call a supervisor for help. If the supervisor is not available, call 911.
- Have someone stay with the worker until help arrives.
- Move the worker to a cooler/shaded area.
- Remove outer clothing.
- Fan and mist the worker with water; apply ice (ice bags or ice towels).
- Provide cool drinking water, if able to drink.

IF THE WORKER IS NOT ALERT or seems confused, this may be a heat stroke. CALL 911 IMMEDIATELY and apply ice as soon as possible.



For more information:
OSHA Occupational Safety and Health Administration
www.osha.gov (800) 321-OSHA (6742)

ATTACHMENT 3

Task-Specific Job Hazard Analyses

Job Hazard Analysis – Excavation Observation, Including Construction Projects

Issued September 23, 2020

Farallon developed this Job Hazard Analysis (JHA) to address typical hazards associated with the noted activity. For each project, the project team should evaluate the listed hazards and update the JHA accordingly to note additional site-specific or project-specific hazards. Field work may be performed in conjunction with other JHAs, depending on project scope.

Farallon employees are responsible for being knowledgeable about general site conditions and associated preventive measures as noted in the Job Hazard Analysis – General Site Conditions.

Key Pre-Field Tasks	Utility notification (Section 6 of site-specific Health and Safety Plan [HASP]). Review of as-built and engineering drawings for the property. Review of air monitoring requirements (Section 4.2 of site-specific HASP).
Personal Protective Equipment (PPE)	Level D – safety boots, high-visibility clothing (vest if exposed to vehicular traffic), safety glasses with side shields, hard hat, appropriate gloves, hearing protection.
Safety Data Sheets Needed	Sample preservative(s), equipment decontamination chemicals.
Safety Briefing	A safety briefing will be held at the job site at the beginning of each day and documented in field notes. On multiple-day projects on the same job site, a safety briefing is required each day.

Many hazards encountered during excavation projects are related to activities performed by the contractor. Farallon employees typically serve in an observation role and should not be participating in the physical activities required for excavation activities. Farallon employees should be knowledgeable of the hazards related to excavation activities and be able to identify when a hazard is present and how to mitigate it.

Primary health and safety hazards during excavation activities are the risk of being struck by the excavator, specifically the excavator bucket; entering an excavation that has sidewalls that are not properly sloped or supported with the proper bracing or shoring; and being exposed to chemical vapors or contaminated particulates via inhalation. Key measures that the excavation operator should take to mitigate these hazards are:

- Know location of overhead and subgrade utilities.
- If excavation exceeds 4 feet below ground surface (Washington) or 5 feet below ground surface (Oregon and California), implement proper sloping or shoring; some excavations may warrant shoring at shallower depths.
- Maintain required excavation setbacks for workers and equipment. Monitor the condition of sidewalls and surrounding ground conditions.
- Work with Farallon personnel to conduct air-monitoring within the excavation as warranted based on chemicals present.
- Have spill containment supplies readily available.

Job Hazard Analysis – Excavation Observation, Including Construction Projects

Issued September 23, 2020

The following table provides a Job Hazard Analysis for tasks that Farallon employees typically perform during observation of excavation activities.

Job Steps	Potential Hazards	Preventive Measures
Mobilize to site with equipment/supplies suitable for excavation oversight.	Vehicle and pedestrian traffic. Strain from lifting and carrying. Slips, trips, or falls.	<ul style="list-style-type: none"> • Follow safe driving procedures. • Employ safe lifting procedures. Evaluate walking path before proceeding. Use hand truck or cart to avoid carrying heavy or awkward loads. • Be aware of surroundings.
Set up job site, including any site and traffic controls, and conduct on-site utility clearance.	Vehicle and pedestrian traffic. Pedestrian interactions (unfriendly). Slips, trips, or falls.	<ul style="list-style-type: none"> • Begin with safety briefing. • Implement traffic control through cones or other barriers when working in parking lots or other on-site, low-speed vehicle traffic areas. • When conducting work within road right-of-way, subcontract a traffic control company to develop and implement traffic-control plans if warranted. • Use a traffic control subcontractor for implementing their traffic-control plan, such as setting out cones and tape in the road to define the safety area and/or conduct flagging operations. • Stand clear of vehicular traffic. • Be aware of surroundings. • Establish exclusion zone for job site. • Be aware of pedestrian traffic entering the exclusion zone.
Observe soil excavation activities, including removal of contaminated soil, creation of temporary soil stockpiles, and filling of trucks for off-site transport and disposal of soil.	Vehicle and pedestrian traffic. Exposure to chemicals and contaminants. Open excavation, including sidewall cave-in. Equipment failure. Slips, trips, or falls.	<ul style="list-style-type: none"> • Stand clear of equipment operation zone, including swing radius. • Stand clear of temporary storage areas and travel paths for dump trucks. • Monitor Farallon personnel breathing zone in accordance with the air monitoring protocol presented in site-specific HASP. Stop work and reevaluate PPE if monitoring indicates respiratory protection is warranted. Have respirator at hand as identified in site-specific HASP. • Keep work area clear of hazards.

**Job Hazard Analysis – Excavation Observation, Including Construction
Projects
Issued September 23, 2020**

Job Steps	Potential Hazards	Preventive Measures
Collect samples in accordance with sampling plan.	Vehicle/heavy-equipment traffic, including dump trucks. Open excavation, including sidewall cave-in. Exposure to chemicals and contaminants. Contact with sample preservative (acid). Sample-container breakage. Slips, trips, or falls.	<ul style="list-style-type: none"> • Avoid entering excavation; collect samples from backhoe bucket. • Use agreed-upon hand signals with heavy-equipment operators. • Stand clear of equipment operation zone, including swing radius. • Monitor Farallon personnel breathing zone in accordance with the air monitoring protocol presented in site-specific HASP. Stop work and reevaluate PPE if monitoring indicates respiratory protection is warranted. Have respirator at hand as identified in site-specific HASP. • Evaluate soil samples at arm's length. Place soil inside a resealable plastic bag if closer evaluation is warranted. Avoid inhaling odors from samples. • Wear nitrile or other suitable gloves. • Handle sample containers carefully to avoid spilling preservative. • Handle and store sample containers carefully. • Keep work area clear of hazards.
Observe backfill of excavation.	Open excavation, including sidewall cave-in. Vehicle/heavy-equipment traffic, including dump trucks. Slips, trips, or falls.	<ul style="list-style-type: none"> • Avoid entering excavation. • Stand clear of equipment operation zone, including swing radius; use agreed-upon hand signals with heavy-equipment operators. • Stand away from the travel path for dump trucks. • Keep work area clear of hazards.
Clean the site; demobilize.	Vehicle and pedestrian traffic. Strain from lifting and carrying. Slips, trips, or falls.	<ul style="list-style-type: none"> • Use buddy system to remove traffic control in parking lots or other similar low-speed vehicle traffic areas, as necessary. • Employ safe lifting procedures. • Keep work area clear of hazards.
Package and deliver samples to laboratory.	Sample-container breakage. Strain from lifting. Vehicle and pedestrian traffic.	<ul style="list-style-type: none"> • Handle and pack sample containers carefully. • Employ safe lifting procedures. Evaluate walking path before proceeding. Use hand truck or cart to avoid carrying heavy or awkward loads. • Follow safe driving procedures.

Job Hazard Analysis – Groundwater Sampling, including Monitoring Wells Issued September 23, 2020

Farallon developed this Job Hazard Analysis (JHA) to address typical hazards associated with the noted activity. For each project, the project team should evaluate the listed hazards and update the JHA accordingly to note additional site-specific or project-specific hazards. Field work may be performed in conjunction with other JHAs, depending on project scope.

Farallon employees are responsible for being knowledgeable about general site conditions and associated preventive measures as noted in the Job Hazard Analysis – General Site Conditions.

Personal Protective Equipment (PPE)	Level D – safety boots, high-visibility clothing (vest if exposed to vehicular traffic), safety glasses with side shields, hard hat, appropriate gloves, hearing protection. Face shield may be warranted depending on contaminant(s).
Safety Data Sheets Needed	Sample preservative(s), equipment decontamination chemicals.
Safety Briefing	A safety briefing will be held at the job site at the beginning of each day and documented in field notes. On multiple-day projects on the same job site, a safety briefing is required each day.

Job Steps	Potential Hazards	Preventive Measures
Mobilize with equipment/supplies suitable for sampling.	Vehicle and pedestrian traffic. Strain from lifting and carrying. Slips, trips, or falls.	<ul style="list-style-type: none"> • Follow safe driving procedures. • Employ safe lifting procedures. Evaluate walking path before proceeding. Use hand truck or cart to avoid carrying heavy or awkward loads. • Be aware of surroundings.
Set up job site, including any site and traffic controls.	Vehicle and pedestrian traffic. Pedestrian interactions (unfriendly). Slips, trips, or falls.	<ul style="list-style-type: none"> • Begin with safety briefing. • Implement traffic control through cones or other barriers when working in parking lots or other on-site, low-speed vehicle traffic areas. • When conducting work within road right-of-way, subcontract a traffic control company to develop and implement traffic-control plans if warranted. • Use a traffic control subcontractor for implementing their traffic-control plan, such as setting out cones and tape in the road to define the safety area and/or conduct flagging operations. • Stand clear of vehicular traffic. • Be aware of surroundings. • Establish exclusion zone for job site. • Be aware of pedestrian traffic entering the exclusion zone.

Job Hazard Analysis – Groundwater Sampling, including Monitoring Wells Issued September 23, 2020

Job Steps	Potential Hazards	Preventive Measures
Gauge water levels and product thickness (where applicable) in well(s).	<p>Exposure to chemicals and contaminants.</p> <p>Strain and repetitive motion.</p> <p>Slips, trips, or falls.</p>	<ul style="list-style-type: none"> • Monitor breathing zone in accordance with the air monitoring protocol presented in site-specific HASP. Stop work and re-evaluate PPE if monitoring indicates respiratory protection is warranted. Have respirator at hand as identified in site-specific HASP. • Wear nitrile or other suitable gloves. • Wear protective clothing if contaminants pose a dermal hazard. • Employ safe lifting procedures. • Keep work area clear of trip or fall hazards.
Purge well(s) and collect purge water.	<p>Exposure to chemicals and contaminants.</p> <p>Strain and repetitive motion from bailing, pulling pumps, and carrying full containers of purge water.</p> <p>Slips, trips, or falls.</p>	<ul style="list-style-type: none"> • Monitor breathing zone in accordance with the air monitoring protocol presented in site-specific HASP. Stop work and re-evaluate PPE if monitoring indicates respiratory protection is warranted. Have respirator at hand as identified in site-specific HASP. • Wear nitrile or other suitable gloves. • Wear protective clothing if contaminants pose a dermal hazard. • Employ safe lifting procedures. • Keep work area clear of trip or fall hazards.
Collect samples in accordance with sampling plan.	<p>Exposure to chemicals and contaminants.</p> <p>Contact with sample preservative (acid).</p> <p>Sample-container breakage.</p> <p>Slips, trips, or falls.</p>	<ul style="list-style-type: none"> • Monitor breathing zone in accordance with the air monitoring protocol presented in site-specific HASP. Stop work and re-evaluate PPE if monitoring indicates respiratory protection is warranted. Have respirator at hand as identified in site-specific HASP. • Wear nitrile or other suitable gloves. • Wear protective clothing if contaminants pose a dermal hazard. • Handle sample containers carefully. • Keep work area clear of trip or fall hazards.
Dispose of or store purge water on the site.	<p>Exposure to chemicals and contaminants.</p> <p>Strain and repetitive motion from carrying and lifting full containers of purge water.</p> <p>Slips, trips, or falls.</p>	<ul style="list-style-type: none"> • Monitor breathing zone in accordance with the air monitoring protocol presented in site-specific HASP. Stop work and re-evaluate PPE if monitoring indicates respiratory protection is warranted. Have respirator at hand as identified in site-specific HASP. • Wear nitrile or other suitable gloves. • Wear protective clothing if contaminants pose a dermal hazard. • Use suitable equipment to transport water (e.g., pumps, drum dollies). • Keep work area clear of trip or fall hazards.

Job Hazard Analysis – Groundwater Sampling, including Monitoring Wells Issued September 23, 2020

Job Steps	Potential Hazards	Preventive Measures
Clean the site; demobilize.	Vehicle and pedestrian traffic. Strain from lifting. Slips, trips, or falls.	<ul style="list-style-type: none"> • Use buddy system to remove traffic control in parking lots or other similar low-speed vehicle traffic areas, as necessary. • Employ safe lifting procedures. • Keep work area clear of hazards.
Package and deliver samples to laboratory.	Sample-container breakage. Strain from lifting. Vehicle and pedestrian traffic.	<ul style="list-style-type: none"> • Handle and pack sample containers carefully. • Employ safe lifting procedures. Evaluate walking path before proceeding. Use hand truck or cart to avoid carrying heavy or awkward loads. • Follow safe driving procedures.

ATTACHMENT 4

Health-Based and Monitoring Information for Potential Site Contaminants

HEALTH-BASED AND MONITORING INFORMATION FOR POTENTIAL SITE CONTAMINANTS

Farallon job sites may contain one or more of the chemicals or compounds provided in the following table. These substances may be present due to historical site use, current Site activities, or the presence of contamination from unknown sources. This table should be reviewed prior to the start of work and questions directed to the Site Health and Safety Officer. Air monitoring may be required at a Site based on the scope of work for the project. Refer to the site-specific Health and Safety Plan to determine whether air or personnel monitoring will be required for the scope of work.

Chemical (or Class)	OSHA PEL ACGIH TLV	Other Pertinent Limits	Properties	Routes of Exposure or Irritation	Acute Health Effects	Chronic Health Effects/ Target Organs
Petroleum Compounds and Petroleum Additives						
Benzene	PEL – 1 ppm TLV – 0.5 ppm (skin)	PEL STEL – 5 ppm IDLH – 500 ppm	Characteristic benzene odor.	Inhalation; dermal; ingestion; eye contact.	Skin (dermatitis); eye, respiratory tract irritant; headache; dizziness; nausea.	Carcinogen; CNS; eye damage; bone marrow; blood; skin; leukemia.
Coal tar pitch volatiles (aka polycyclic aromatic hydrocarbons pyrene, phenanthrene, chrysene, anthracene, and benzo[a]pyrene)	PEL – 0.2 mg/m ³	NIOSH REL – 0.1 mg/m ³ (cyclohexane-extractable fraction) IDLH – 80 mg/m ³	Black or dark-brown amorphous residue.	Inhalation; dermal; ingestion; eye contact.	Irritation to eyes, skin; nose, throat irritation that may cause difficulty breathing.	Skin and lung cancer; damage to the reproductive system; thickening and darkening of the skin.
Ethylbenzene	PEL – 100 ppm TLV – 100 ppm	PEL STEL – 125 ppm TLV STEL – 125 ppm NIOSH REL – 100 ppm REL STEL – 125 ppm IDLH – 800 ppm	Pungent, aromatic odor.	Inhalation; dermal; ingestion; eye contact.	Skin, eye, mucous membrane irritant; headache; dizziness; drowsiness.	Eyes; respiratory tract; skin; CNS; blood; kidneys; liver.
2-Methylnaphthalene	Not established. 2-Methylnaphthalene is part of the naphthalenes family, but is not considered as hazardous as naphthalene. Limits for naphthalene should be used as a conservative approach.		Normally crystalline.	Inhalation; dermal; ingestion; eye contact.	Intoxication is most common following ingestion, but can occur after dermal or inhalation exposure. Eye irritant; conjunctivitis; superficial injury to cornea; diminished visual acuity; dermatitis; hypersensitivity; nausea and vomiting; skin irritation; headache; vomiting; fever; photosensitization; restlessness; lethargy; acute renal failure possible.	Anorexia; hemolysis; methemoglobinemia; hyperkalemia; anemia; cataracts. Seizures, coma may develop in severe intoxications.

HEALTH-BASED AND MONITORING INFORMATION FOR POTENTIAL SITE CONTAMINANTS

Chemical (or Class)	OSHA PEL ACGIH TLV	Other Pertinent Limits	Properties	Routes of Exposure or Irritation	Acute Health Effects	Chronic Health Effects/ Target Organs
Methyl tertiary-butyl ether (MTBE)	No PEL established. TLV – 40 ppm	AIHA WEEL – 100 ppm	Flammable liquid with a distinctive, disagreeable odor.	Inhalation; dermal; ingestion.	Irritated nose, throat; headache; dizziness; nausea; sleepiness.	CNS, liver, kidney, gastrointestinal damage; potential carcinogen.
Naphthalene	PEL – 10 ppm TLV – 10 ppm	TLV STEL – 15 ppm NIOSH REL – 10 ppm REL STEL – 15 ppm IDLH – 250 ppm	Mothball-like odor.	Inhalation; dermal; ingestion; eye contact.	Skin, eye, mucous membrane irritant, nausea.	Eyes, blood, skin, liver, kidney, RBC, CNS.
Toluene	PEL – 200 ppm TLV – 50 ppm	NIOSH REL – 100 ppm TWA; 150 ppm STEL ILDH – 500 ppm	Sweet, pungent, benzene-like odor.	Eye contact.	Skin (dermatitis); eye, respiratory tract irritant; headache; dizziness; weakness; fatigue.	CNS; liver; kidneys; skin.
Xylenes	PEL – 100 ppm TLV – 100 ppm	TLV STEL – 500 ppm NIOSH REL – 100 ppm NIOSH REL STEL – 100 ppm IDLH – 900 ppm	Aromatic odor.	Inhalation; dermal; ingestion; eye contact.	Throat, skin irritant (dermatitis); headache; nausea; drowsiness; fatigue.	CNS, liver, kidneys, skin, gastrointestinal damage; eye damage.
Chlorinated Volatile Organic Compounds						
Carbon Tetrachloride	PEL – 10 ppm C – 25 ppm TLV – 5 ppm	IDLH – 300 ppm	Colorless liquid with a characteristic ether-like odor.	Inhalation, skin absorption, ingestion, skin and/or eye contact.	Irritation to eyes and skin; CNS depression; nausea, vomiting; liver and kidney injury; drowsiness, dizziness, incoordination.	Cancerous – liver. Liver and/or kidney damage. CNS, eyes, lungs, liver, kidneys, skin.
Chloroethane	PEL – 1,000 ppm TLV – 1,000 ppm	IDLH – 3,800 ppm	Colorless gas or liquid (below 54°F) with a pungent, ether-like odor.	Inhalation, skin absorption, ingestion, skin and/or eye contact.	Incoordination, inebriation, abdominal cramps.	Cardiac arrhythmias, cardiac arrest, liver and/or kidney damage. Liver, kidneys, respiratory system, CVS, CNS.
Chloroform	PEL – 2 ppm C – 50 ppm TLV – 10 ppm	IDLH – 500 ppm	Colorless liquid with a pleasant odor.	Inhalation, skin absorption, ingestion, skin and/or eye contact.	Irritation to eyes and skin, dizziness, mental dullness, nausea, confusion, headache, lassitude, anesthesia.	Cancerous – liver and kidneys. Anesthesia, damage to liver, damage to kidneys. Liver, kidneys, heart, eyes, skin, CNS.

HEALTH-BASED AND MONITORING INFORMATION FOR POTENTIAL SITE CONTAMINANTS

Chemical (or Class)	OSHA PEL ACGIH TLV	Other Pertinent Limits	Properties	Routes of Exposure or Irritation	Acute Health Effects	Chronic Health Effects/ Target Organs
1,4-Dichlorobenzene	PEL – 75 ppm (450 mg/m ³) TLV – 10 ppm	IDLH – 1,000 ppm	Colorless or white crystalline solid with a mothball-like odor. Reacts to strong oxidizers.	Inhalation, skin absorption, ingestion, skin and/or eye contact.	Eye irritation, swelling periorbital, profuse rhinitis, headache, anorexia, nausea, vomiting, weight loss, jaundice, cirrhosis.	Cancerous – liver and kidney. Liver and/or kidney damage. Liver, respiratory system, eyes, kidneys, and skin.
Dichlorodifluoromethane	PEL – 1,000 ppm TLV – 1,000 ppm	IDLH – 15,000 ppm	Colorless gas with an ether-like odor at extremely high concentrations.	Inhalation, skin and/or eye contact.	Dizziness, tremor, asphyxia, unconsciousness, cardiac arrhythmias, cardiac arrest, frostbite.	CVS, peripheral nervous system.
1,1-Dichloroethane	PEL – 100 ppm (400 mg/m ³) TLV – 100 ppm	IDLH – 3,000 ppm	Colorless, oily liquid with a chloroform-like odor.	Inhalation, ingestion, skin and/or eye contact.	Irritation to skin, CNS depression, liver damage, kidney damage, lung damage.	Liver, kidney, and/or lung damage. Skin, liver, kidneys, lungs, CNS.
1,2-Dichloroethane	PEL TWA – 50 ppm C – 100 ppm TLV – 10 ppm	IDLH – 1,000 ppm	Colorless liquid with a pleasant, chloroform-like odor. Decomposes slowly, becomes acidic and darkens in color.	Inhalation, ingestion, skin absorption, skin and/or eye contact.	Irritation to eyes, corneal opacity, CNS depression, nausea, vomiting, dermatitis.	Liver, kidney, and/or CVS damage. Eyes, skin, kidneys, liver, CNS, CVS.
1,1-Dichloroethene (vinylidene chloride)	No PEL TLV – 5 ppm	NIOSH considers this compound to be a carcinogen.	Colorless liquid or gas (above 89°F) with a mild, sweet, chloroform-like odor.	Inhalation; skin absorption; ingestion; eye contact.	Irritation to eyes, skin, throat; dizziness; headache; nausea; dyspnea (breathing difficulty).	Liver, kidney dysfunction; pneumonitis; potential occupational liver and kidney carcinogen. Target Organs: Eyes, skin, respiratory system, CNS, liver, kidneys.
1,2-Dichloroethene (dichloroethylene)	PEL – TWA 200 ppm TLV – TWA 200 ppm	IDLH – 1,000 ppm	Solvent odor.	Inhalation; skin absorption; ingestion; eye contact.	Typical solvent symptoms.	Liver, kidney, CNS symptoms.

HEALTH-BASED AND MONITORING INFORMATION FOR POTENTIAL SITE CONTAMINANTS

Chemical (or Class)	OSHA PEL ACGIH TLV	Other Pertinent Limits	Properties	Routes of Exposure or Irritation	Acute Health Effects	Chronic Health Effects/ Target Organs
Methylene chloride	PEL – 25 ppm TLV – 50 ppm	NIOSH considers methylene chloride to be a carcinogen.	Colorless liquid with a chloroform-like odor.	Inhalation; dermal; ingestion; eye contact.	Irritation to eyes, skin; fatigue; weakness; somnolence (sleepiness, unnatural drowsiness); lightheadedness; numbness; tingling limbs; nausea.	Potential occupational carcinogen. Target Organs: Eyes, skin, CVS, CNS.
Tetrachloroethene (perchloroethylene)	PEL – 100 ppm TLV – 25 ppm	PEL C – 200 ppm TLV STEL – 100 ppm IDLH – 150 ppm NIOSH considers this compound to be a carcinogen.	Colorless liquid with a mild, chloroform-like odor.	Inhalation; skin absorption; ingestion; eye contact.	Irritation to eyes, skin, nose, throat, respiratory system; nausea; flushed face, neck; vertigo (an illusion of movement); dizziness; lack of coordination; headache; skin erythema (redness).	Somnolence (sleepiness, unnatural drowsiness); liver damage; potential occupational liver carcinogen. Target Organs: Eyes, skin, respiratory system, liver, kidneys, CNS.
1,1,1-Trichloroethane (methyl chloroform)	PEL – TWA 350 ppm TLV – 350 ppm STEL – 450 ppm	NIOSH C – 350 ppm	Colorless liquid with a mild, chloroform-like odor.	Inhalation; skin absorption; ingestion; eye contact.	Irritation to eyes, skin; headache; CNS depressant; poor equilibrium; lassitude (weakness, exhaustion); depression; dermatitis.	Cardiac arrhythmias; liver damage. Target Organs: Eyes, skin, CNS, CVS, liver.
1,1,2-Trichloroethane	PEL TWA – 10 ppm (45 mg/m ³) (skin) TLV – 10 ppm	NIOSH considers this compound to be a carcinogen. REL TWA – 10 ppm (45 mg/m ³) (skin)	Colorless liquid with a sweet, chloroform-like odor.	Inhalation; skin absorption; ingestion; eye contact.	Irritation to eyes, nose; CNS depressant; depression; dermatitis.	Liver, kidney damage; potential occupational liver carcinogen. Target Organs: Eyes, respiratory system, CNS, liver, kidneys.
Trichloroethene (trichloroethylene)	PEL – 100 ppm TLV – 50 ppm	PEL C – 200 ppm NIOSH considers trichloroethylene to be a carcinogen.	Colorless liquid (unless dyed blue) with a chloroform-like odor.	Inhalation; dermal; ingestion; eye contact.	Irritation to eyes, skin; headache; vertigo (an illusion of movement); visual disturbance; fatigue; giddiness; tremor; nausea; somnolence (sleepiness, unnatural drowsiness); vomiting; dermatitis.	Cardiac arrhythmias; paresthesia; liver injury; potential occupational carcinogen of liver, kidney.
Vinyl chloride	PEL – 1 ppm TLV – 1 ppm	NIOSH considers this material to be a carcinogen.	Liquid with a pleasant odor at high concentrations.	Inhalation; dermal; eye contact.	Weakness; abdominal pain; pallor or cyanosis of extremities; liquid frostbite.	Gastrointestinal bleeding; enlarged liver; potential occupational liver carcinogen; damage to CNS, blood, respiratory system, lymphatic system.

HEALTH-BASED AND MONITORING INFORMATION FOR POTENTIAL SITE CONTAMINANTS

Chemical (or Class)	OSHA PEL ACGIH TLV	Other Pertinent Limits	Properties	Routes of Exposure or Irritation	Acute Health Effects	Chronic Health Effects/ Target Organs
Other Organic Compounds						
Acetone	PEL – 1000 ppm TLV – 500 ppm	NIOSH REL – 250 ppm TLV STEL – 750 ppm IDLH – 2,500 ppm	Fragrant, mint-like odor.	Inhalation; dermal; ingestion; eye contact.	Irritation to eyes, nose, throat; headache; dizziness; dermatitis.	CNS depressant; depression; liver, kidney damage.
Benzo(a)pyrene equivalent	PEL – TWA 0.2 mg/m ³	N/A	Solid powder, dark-yellow, aromatic	Inhalation; ingestion; dermal; eye contact	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing	Carcinogen
Bromoform	PEL – 0.5 ppm (5 mg/m ³) TLV – 0.5 ppm	IDLH – 850 ppm	Colorless to yellow liquid with a chloroform-like odor.	Inhalation, skin absorption, ingestion, skin and/or eye contact.	Irritation to eyes, skin, and respiratory system; CNS depression; liver and kidney damage.	Liver and/or kidney damage. Eyes, skin, respiratory system, CNS, liver, and kidneys.
2-Butanone (methyl ethyl ketone)	PEL – 200 ppm TLV – 200 ppm	NIOSH REL – 200 ppm REL STEL – 300 ppm TLV STEL – 300 ppm	Colorless liquid with a moderately sharp, fragrant, mint- or acetone-like odor.	Inhalation; dermal; ingestion; eye contact.	Irritation to eyes, skin, nose; headache; dizziness; vomiting; dermatitis.	Eyes; skin; respiratory system; CNS.
Carbon disulfide	PEL – 20 ppm TLV – 10 ppm	PEL C – 30 ppm	Colorless to faint yellow liquid with a sweet ether-like odor.	Inhalation; dermal; ingestion; eye contact.	Dizziness; headache; poor sleep; fatigue; nervousness; eye, skin burns; dermatitis.	Anorexia; weight loss; ocular changes; psychosis; polyneuropathy; Parkinson-like syndrome; coronary heart disease; gastritis; kidney, liver injury; reproductive effects.
Dioxins and Furans	OSHA and other health monitoring organizations have not established health-based action levels. 2,3,7,8-tetrachloro-p-dibenzo-dioxin (2,3,7,8 TCDD) is considered the most toxic of the dioxins and furans group of compounds and is the indicator compound.		Colorless to white crystalline solid.	Inhalation; dermal; ingestion; eye contact.	Irritation eyes; allergic dermatitis, chloracne; porphyria; gastrointestinal disturbance.	Possible reproductive or teratogenic effects.

HEALTH-BASED AND MONITORING INFORMATION FOR POTENTIAL SITE CONTAMINANTS

Chemical (or Class)	OSHA PEL ACGIH TLV	Other Pertinent Limits	Properties	Routes of Exposure or Irritation	Acute Health Effects	Chronic Health Effects/ Target Organs
2-Hexanone (methyl n-butyl ketone)	PEL – 100 ppm TLV – 5 ppm	TLV STEL – 10 ppm NIOSH REL – 1 ppm IDLH – 1,600 ppm	Colorless liquid with an acetone-like odor.	Inhalation; dermal; ingestion; eye contact.	Irritation to eyes, nose; dermatitis; headache; drowsiness.	Damages to eyes, skin, respiratory system, CNS, peripheral nervous system (peripheral neuropathy: weakness, paresthesia).
Methane	None	Explosive limits: LEL: 5% by volume UEL: 15% by volume	Flammable gas that may displace oxygen	Risk of explosion or asphyxiation	Mood changes, slurred speech, vision problems, memory loss, nausea, vomiting, facial flushing and headache	None identified
Pentachlorophenol (PCP)	PEL – 0.5 mg/m ³	NIOSH REL – 0.5 mg/m ³ IDLH – 2.5 mg/m ³	Colorless to white crystalline solid with a benzene-like odor.	Inhalation; skin absorption; ingestion; skin, eye contact.	Irritation to eyes, nose, throat; sneezing; cough; lassitude (weakness, exhaustion); anorexia; weight loss; sweating; headache; dizziness; nausea; vomiting; dyspnea (breathing difficulty); chest pain; high fever; dermatitis.	Eyes; skin; respiratory system; CNS; CVS; liver; kidneys.
Per- and polyfluoroalkyl substances (PFAS)	OSHA and other health monitoring organizations have not established health-based action levels. Perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorobutanesulfonic acid (PFBS), and hexafluoropropylene oxide dimer acid hexafluoropropylene oxide (HFPO) are indicator compounds for the PFAS group of compounds.		Found in various forms.	Inhalation; dermal; eye; ingestion.	Irritation to eyes, skin, respiratory tract.	Possible carcinogen.
Polychlorinated biphenyls (PCBs)	PEL 0.5 – 1 mg/m ³ TLV 0.5 – 1 mg/m ³ , depending on the species	NIOSH REL – 0.001 mg/m ³ NIOSH considers this material to be a carcinogen. IDLH – 5 mg/m ³	Pale or dark yellow odorless liquid.	Inhalation; dermal; ingestion. Skin absorption is a significant mode of exposure.	Irritation to eyes, skin, respiratory tract; chloroacne.	May cause reproductive, CNS, CVS, skin, eye, liver effects; cancer (leukemia).
Styrene	PEL – 100 ppm TLV – 20 ppm	PEL C – 200 ppm TLV STEL – 40 ppm NIOSH REL – 50 ppm	Colorless to yellow oily liquid with a sweet, floral odor.	Inhalation; dermal; ingestion; eye contact.	Irritation to eyes, nose, respiratory system; headache; fatigue; dizziness; confusion; malaise (vague feeling of discomfort); drowsiness; weakness; unsteady gait; narcosis.	Defatting dermatitis; possible liver injury; reproductive effects.

HEALTH-BASED AND MONITORING INFORMATION FOR POTENTIAL SITE CONTAMINANTS

Chemical (or Class)	OSHA PEL ACGIH TLV	Other Pertinent Limits	Properties	Routes of Exposure or Irritation	Acute Health Effects	Chronic Health Effects/ Target Organs
2,4,6-Trinitrotoluene (TNT)	PEL 1.5 mg/m ³ TWA		Colorless to pale yellow, odorless solid or crushed flakes.	Inhalation, skin absorption, ingestion, skin and/or eye contact.	Irritation to skin and mucous membranes; liver damage/jaundice; cyanosis; sneezing; cough and/or sore throat; peripheral neuropathy; muscle pain; kidney damage; cataract; sensitization dermatitis; leukocytosis (increased blood leukocytes); anemia; cardiac irregularities.	Eyes, skin, respiratory system, blood, liver, cardiovascular system, CNS, kidneys.
Pesticides and Herbicides						
Dieldrin	PEL – 0.25 mg/m ³ TWA – 0.25 mg/m ³	IDLH – 50 mg/m ³	Insecticide, colorless to light tan crystals with a mild, chemical odor.	Inhalation, skin absorption, ingestion, skin and eye contact.	Headache, dizziness; nausea, vomiting, malaise (vague feeling of discomfort), sweating; myoclonic limb jerks; clonic-tonic convulsions; coma.	CNS, liver, kidneys, skin.
Metals and Other Inorganic Materials						
Arsenic	PEL – 0.010 mg/m ³	NIOSH REL – CA C 0.002 mg/m ³ [15- minutes]	Metal: Silver-gray or tin-white, brittle, odorless solid.	Inhalation; skin absorption; skin and/or eye contact; ingestion.	Ulceration of nasal septum; peripheral neuropathy; gastrointestinal disturbances; dermatitis; respiratory irritation; hyperpigmentation of skin (potential occupational carcinogen).	Lung and lymphatic cancer; liver; kidneys; skin; lungs; lymphatic system.
Asbestos	Per Part 1910.1001 of Title 29 of the Code of Federal Regulations and NIOSH: PEL and REL – 0.1 fiber per cubic centimeter of air (0.1 fiber/cm ³)	OSHA considers asbestos to be a carcinogen.	White or greenish (chrysotile), blue (crocidolite), or gray-green (amosite) fibrous, odorless solids.	Inhalation; ingestion; skin, eye contact.	Eye irritation; breathing difficulty; gastrointestinal issues.	Eye irritation; asbestosis; mesothelioma; lung cancer; dyspnea; cancer of the gastrointestinal tract. Target Organs: Respiratory system, eyes.

HEALTH-BASED AND MONITORING INFORMATION FOR POTENTIAL SITE CONTAMINANTS

Beryllium	PEL – 0.0002 mg/m ³ STEL – 0.002 mg/m ³ TLV – 0.002 mg/m ³	IDLH – 4 mg/m ³	Metal – hard, brittle, gray-white solid.	Inhalation, skin and/or eye contact.	Irritation to eyes, dermatitis.	Cancerous – lung. Berylliosis: anorexia, weight loss, lassitude, chest pain, cough, clubbing of fingers, cyanosis, pulmonary insufficiency. Eyes, skin, respiratory system.
Barium	PEL – 0.5 mg/m ³ TLV – 0.5 mg/m ³	IDLH – 50 mg/m ³	White, colorless solid.	Inhalation, ingestion, skin and/or eye contact.	Irritation to eyes, skin, upper respiratory system; skin burns; gastroenteritis; muscle spasms.	Slow pulse, extrasystoles, hypokalemia. Eyes, skin, respiratory system, heart, CNS.
Cadmium	PEL – 0.005 mg/m ³		Odorless, yellow-brown, finely divided particulate dispersed in air.	Inhalation.	Pulmonary edema; dyspnea (breathing difficulty); cough; chest tightness; substernal (occurring beneath the sternum) pain; headache; chills; muscle aches; nausea; vomiting; diarrhea; emphysema; proteinuria; anosmia (loss of the sense of smell); mild anemia; potential occupational carcinogen.	Prostate and lung cancer; respiratory system; kidneys; blood.
Chromium	PEL – 1 mg/m ³ TLV – 0.5 mg/m ³	IDLH – 250 mg/m ³	Blue-white to steel-gray, lustrous, brittle, hard, odorless solid.	Inhalation, ingestion, skin and/or eye contact.	Irritation to eyes and skin.	Lung fibrosis. Eyes, skin, respiratory system.
Cobalt	PEL – 0.1 mg/m ³ TLV – 0.05 mg/m ³	IDLH – 20 mg/m ³	Odorless, silver-gray to black solid.	Inhalation, ingestion, skin and/or eye contact.	Cough, dyspnea, wheezing, decreased pulmonary function, weight loss, dermatitis.	Diffuse nodular fibrosis, respiratory hypersensitivity, asthma. Skin, respiratory system.
Copper	PEL – 1 mg/m ³ TLV – 1 mg/m ³	IDLH – 100 mg/m ³	Reddish, lustrous, malleable, odorless solid.	Inhalation, ingestion, skin and/or eye contact.	Irritation to eyes, nose, and pharynx, nasal septum perforation; metallic taste; dermatitis.	Lung, liver, and/or kidney damage; anemia. Eyes, skin, respiratory system, liver, kidneys.

HEALTH-BASED AND MONITORING INFORMATION FOR POTENTIAL SITE CONTAMINANTS

Cyanide (as CN)	PEL – 5 mg/m ³	NIOSH REL – 5 mg/m ³	Usually joined with other chemicals, ranging from colorless gas to a white solid. Faint to bitter almond-like odor.	Inhalation; dermal; ingestion; eye contact.	Headache, lightheadedness, dizziness, nausea, vomiting, agitation, drowsiness, and irritation of the eyes, nose, throat, and respiratory tract, and rapid breathing with a sense of suffocation.	Nose bleeds and sores; thyroid function
Lead	PEL – 0.05 mg/m ³ TLV – 0.05 mg/m ³	IDLH – 100 mg/m ³	A heavy, flexible, soft, gray solid.	Inhalation; dermal; ingestion; eye contact.	Lassitude (weakness, exhaustion); abdominal pain; gingival lead line; tremor; irritation to eyes; hypotension.	Insomnia; facial pallor; anorexia; weight loss; malnutrition; constipation; colic; anemia; paralysis of wrist, ankles; kidney disease; encephalopathy; potential for damage to eyes, gastrointestinal tract, CNS, kidneys, blood, gingival tissue.
Mercury	PEL – 0.1 mg/m ³	NIOSH REL – Mercury vapor: TWA – 0.05 mg/m ³ [skin] Other: C – 0.1 mg/m ³ [skin]	Metal: Silver-white, heavy, odorless liquid. “Other” mercury compounds include all inorganic and aryl mercury compounds except (organo) alkyls.	Inhalation; skin absorption; ingestion; skin and/or eye contact.	Irritation to eyes, skin; cough; chest pain; dyspnea (breathing difficulty); bronchitis; pneumonitis; tremor; lassitude (weakness, exhaustion); insomnia; irritability; indecision; headache; stomatitis; salivation; gastrointestinal disturbance; anorexia; weight loss; proteinuria.	Eyes; skin; respiratory system; CNS; kidneys.
Nickel	PEL – 1 mg/m ³ TLV – 1 mg/m ³	IDLH – 10 mg/m ³	Metal: lustrous, silvery, odorless solid.	Inhalation, ingestion, skin and/or eye contact.	Sensitization dermatitis, allergic asthma.	Cancerous – Lung and nasal. Pneumonitis. Nasal cavities, lungs, skin.
Selenium	PEL – 0.2 mg/m ³ TLV – 0.2 mg/m ³	IDLH – 1 mg/m ³	Amorphous or crystalline, red to gray solid.	Inhalation, ingestion, skin and/or eye contact.	Irritation to eyes, skin, nose, throat; visual disturbance; headache; shills, fever; dyspnea, bronchitis; metallic taste, garlic breath, gastrointestinal disturbance; dermatitis; eye and skin burns.	Anemia, liver necrosis, cirrhosis, kidney and/or spleen damage. Eyes, skin, respiratory system, liver, kidneys, blood, spleen.

HEALTH-BASED AND MONITORING INFORMATION FOR POTENTIAL SITE CONTAMINANTS

Vanadium	C – 0.5 mg/m ³ TLV – 0.05 mg.m ³	IDLH – 35 mg/m ³	Yellow-orange powder.	Inhalation, ingestion, skin and/or eye contact.	Irritation to eyes, skin, throat; green tongue; metallic taste; eczema; cough; wheezing; fine rales.	Bronchitis, dyspnea. Eyes, skin, respiratory system.
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ATTACHMENT 5

Air Monitoring Log
Calibration/Check Log – Air Monitoring Equipment

ATTACHMENT 6

Utility Clearance Log

UTILITY CLEARANCE LOG

Project Name: _____ Project Number: _____
 Location: _____ Date of Work: _____
 Completed by: _____

Instructions. This log must be completed by a Farallon staff member **before** any Farallon-directed ground disturbing activities (e.g., test pit excavation or drilling operations). This form must be completed by the team member who conducts the utility locate for the project scope of work (SOW), and used by the field crew who will be executing the ground disturbance activities.

GROUND DISTURBANCE ACTIVITIES MAY NOT COMMENCE UNTIL UTILITY LOCATES HAVE BEEN COMPLETED

Farallon is responsible for having underground utilities and structures located and marked when completing ground disturbance activities. All soil disturbing activities (e.g., drilling or excavation) within 2 feet of a known utility must be completed using hand tools.

Public utility searches are required for all projects via state-specific 811 dig tickets. Private utility locate services must be hired to locate service laterals and other buried utilities (e.g., on-site electric distribution lines, irrigation pipes) on private property.

Utility Locate Information and Checklist

- Attach map showing drilling and/or excavation sites and found utilities
- One-Call Utility Notification Ticket Number: _____

Utilities notified via One-Call ticket:

Company Name	Utility Responsible for (e.g., electrical, sewer)	Contact Information	Date Response Received

- Private Locate Information
 Company name: _____
 Date of locate: _____
 Equipment used: _____
- Anticipated lithology at the site: _____
 Type of pre-clearance to be used (hand-auger or air knife/vac truck): _____
- Photograph all soil disturbance locations and download to project file
- Review historical site information
- Review utilities and SOW locations with the Site Contact:

Name: _____ Phone: _____

Utilities and Structures found within the project area at the Site

Utility Type	Utility Name	Public Utilities Marked (Y/N)	Private Utilities/Laterals Marked (Y/N)	Marking Method (Flags, paint on pavement, wooden stakes, etc.)	Location, Depth Marked on Attached Map (Y/N)
Petroleum product lines					
Natural gas line					
Water line					
Sewer line					
Storm drain					
Telephone cable					
Electric power line					
Product tank					
Septic tank/drain field					
Overhead lines					
Other					

Include applicable items in this table with the attached map to document found utilities at your site. Be sure to include the site features, SOW locations, scale bar (e.g., 1 square = 5 feet), directional indicator (North arrow), description, distances, and depths of found utilities or other aboveground, overhead, or subsurface structures, including anomalies or unknowns.

Variance Request Review and Approval

If applicable, document the requested variance information below, and include the approval date and signatures of the Project Manager and Safety Team members.

Type of variance requested	Applicable locations, and justification	PM Review	Safety Team review and approval
Request to not pre-clear location to 5 feet below ground surface			
Request to work within 5 feet of a known utility			
Other, please describe			

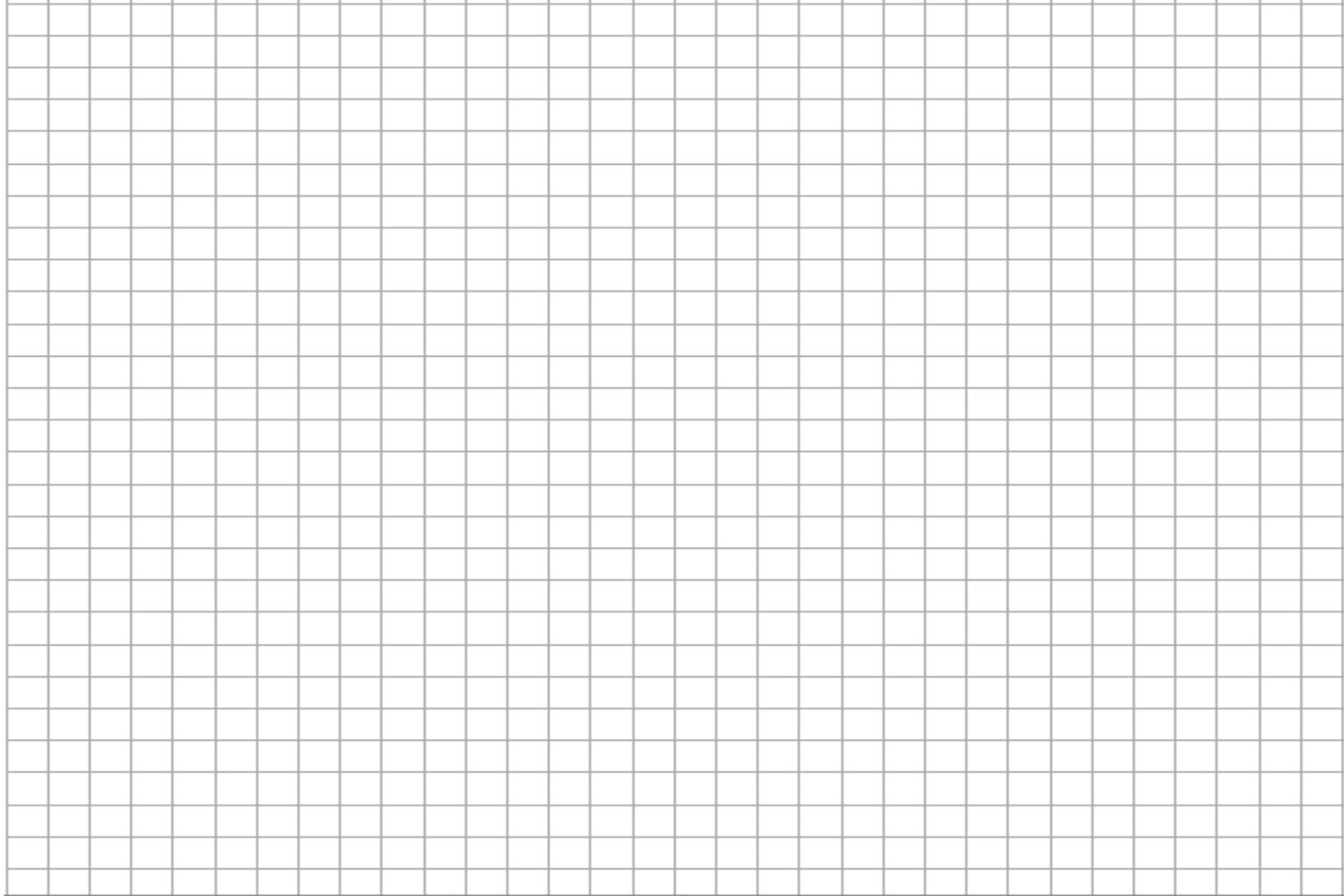
Electric = RED	Gas-Oil-Steam = YELLOW	Comm-CATV = ORANGE	Water = BLUE/PURPLE	Sewer = GREEN	Temp Survey = PINK
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Project Utility and Subsurface Structure Map

Project Name:

Date:

Scale:



Use this page to document found utilities at your site. Be sure to include the site features, SOW locations, scale bar (e.g., 1 square = 5 feet), directional indicator (North arrow), description, distances, and depths of found utilities or other aboveground, overhead, or subsurface structures, including anomalies or unknowns.

ATTACHMENT 7

Incident Report Form

INCIDENT REPORT FORM INSTRUCTIONS

The following process should be followed to submit an Incident Report Form to the Health and Safety Committee at Farallon Consulting, L.L.C.

1. Enter information into the form in Microsoft Word and save the draft document into the project folder under P:/Project/Field_Lab/Safety.
2. Email a link for the completed draft Incident Report Form to safety@farallonconsulting.com. The Corporate Health and Safety Coordinator (HSC) will review the form and provide comments or questions back to you.
3. Address any comments or questions and either resubmit to the HSC for additional review, if requested, or provide the HSC with the final signed and dated copy of the completed Incident Report Form. Attach photos on a separate document.
4. The HSC will route the completed Incident Report Form through the injured employee's Group Manager and the applicable Regional Operations Manager for signature.

INCIDENT REPORT FORM

This report must be completed promptly after the incident. Within 24 hours of the incident, the completed report must be reviewed and signed by the employee's Group Manager and submitted to safety@farallonconsulting.com. This should occur even if the employee is not available to review and sign.

Document the incident with photographs if possible (place in separate document). For environmental releases, discuss possible regulatory spill reporting with the Project Principal.

If there is an injury or fatality, immediately call your Health and Safety Coordinator.

INCIDENT REPORT INFORMATION			
Date of incident, injury, or onset of illness: Click or tap to enter a date.	Time of incident, injury, or onset of illness: <input type="checkbox"/> AM <input type="checkbox"/> PM		
Date Farallon notified of incident: Click or tap to enter a date.	Time Farallon notified: <input type="checkbox"/> AM <input type="checkbox"/> PM		
Date of this report: Click or tap to enter a date.	Project Number (if applicable):		
Farallon employee reporting incident:	To whom reported at Farallon?		
WHO WAS INVOLVED IN INCIDENT (list names and note company if not Farallon employee)			
Farallon Employee(s)	<input type="checkbox"/> None		
Non-Farallon Employee(s)	<input type="checkbox"/> None		
INCIDENT DESCRIPTION			
Location of Incident	Address (street, city, state)		
	Location on property (building, floor, GPS coordinates, etc.)		
	Other description information		
Provide detailed description of incident. Include specific activities during incident (lifting, pushing, walking, etc.)			
Describe the equipment, materials, or chemicals that directly caused the incident or injury			
Describe actions taken/to be taken to avoid future incidents from same cause			
INJURY OR ILLNESS INFORMATION		<input type="checkbox"/> No Injury or Illness	
Describe the specific injury or illness (e.g., puncture, cut, contusion, strain, fracture, skin rash, etc.):			
Body part(s) affected (e.g., back, left wrist, right eye, etc.):			
If seen by Health Care Provider, please provide:	Name:		
	Address:		
	Phone No.:		
Treated in Emergency Room: <input type="checkbox"/> Yes <input type="checkbox"/> No		Hospitalized Overnight as Inpatient: <input type="checkbox"/> Yes <input type="checkbox"/> No	
MOTOR VEHICLE ACCIDENT (MVA)		<input type="checkbox"/> Not a Motor Vehicle Accident	
Please provide photos			

INCIDENT REPORT FORM

If the incident involved two or more vehicles (at least one moving), including parking lot collisions, please also complete the Farallon Motor Vehicle Accident Report found in G:\Forms and Templates\Health and Safety\Forms Logs Checklist.

PROPERTY DAMAGE/THEFT (Including utilities) No Damage/Theft
(Please provide photos. Do not use this section for incidents involving moving vehicle(s).)

Owner Name of Damaged/Stolen Property

Owner address (if not incident location)

Phone No. / Email address

Description of Damage or Stolen Property:

Property Owner Insurance information:

Was (or will) a police report be filed? Yes No

Witness Name:

Address:

Phone No.:

Witness Name:

Address:

Phone No.:

SIGNATURES OF EMPLOYEE AND REVIEWERS

FARALLON PERSONNEL ROLES	NAME (PRINT)	SIGNATURE	TITLE	DATE
Employee				
Project Manager				

HEALTH AND SAFETY FINDINGS AND RECOMMENDED ACTIONS

Corporate Health and Safety Officer	NAME (PRINT)	SIGNATURE	TITLE	DATE

Distribution List: Group Manager of Farallon employee(s) involved in incident
 Regional Operations Manager

ATTACHMENT 8

Near Miss Report Form

NEAR MISS AND SAFETY OBSERVATION REPORT INSTRUCTIONS

The following process should be followed to submit a Near Miss and Safety Observation Report to the Health and Safety Committee at Farallon Consulting, L.L.C.

5. Enter information into the form in Microsoft Word and save the draft document into the project folder under P:/Project/Field_Lab/Safety.
6. Email a link for the completed draft Near Miss and Safety Observation Report to safety@farallonconsulting.com. The Corporate Health and Safety Coordinator (HSC) will review the form and provide comments or questions back to you.
7. Address any comments or questions and either resubmit to the HSC for additional review, if requested, or provide the HSC with the final signed and dated copy of the completed Near Miss and Safety Observation Report.

NEAR MISS REPORT

Employees involved in or witnessing a near miss or making a safety observation should complete this form. These are important indicators of potentially harmful future accidents, and they can provide valuable insights to preventing personal injury and/or property damage on future projects. Please submit the form to safety@farallonconsulting.com

- A near miss is an occurrence that did not result in any personal injury, property damage, environmental release, or production interruption, but could have under slightly different circumstances.
- A safety observation is witnessing any activity that places a person or property at risk of injury, accident, or damage but may not fit the definition of a near miss. For the purposes of this report, a safety observation is considered a near miss.

PROJECT INFORMATION			
Farallon PN:	Project Name:		
Site Address:	City/State:		
NEAR MISS INFORMATION			
Date of near miss: <small>Click or tap to enter a date.</small>	Time of near miss: <input type="checkbox"/> AM <input type="checkbox"/> PM		
Near Miss Category: <small>Choose an item.</small>			
Employee or Non-Employees Involved in Near Miss:			
Exact Location Onsite where Incident Occurred:			
Description of Near Miss			
Corrective Action Taken			
Lessons Learned			
To whom did employee first report the near miss?		Date reported:	<small>Click or tap to enter a date.</small>
		Time reported:	<input type="checkbox"/> AM <input type="checkbox"/> PM
SIGNATURES			
FARALLON PERSONNEL ROLES	NAME AND TITLE	SIGNATURE	DATE
Farallon employee completing form			
Corporate Health and Safety Coordinator			

APPENDIX G
ARCHAEOLOGICAL MONITORING AND INADVERTENT DISCOVERY PLAN

REMEDIAL INVESTIGATION WORK PLAN
BLOCK 79 EAST SITE
701, 739, 753 9th Avenue North
Seattle, Washington

Farallon PN: 397-035

Archaeological Monitoring and Inadvertent Discovery Plan

Prepared for
Block 79 LLC

June 24, 2024

Archaeological MIDP for Block 79 East Seattle, King County, Washington



CONTAINS CONFIDENTIAL INFORMATION – NOT FOR GENERAL DISTRIBUTION

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CULTURAL RESOURCES MONITORING AND INADVERTENT DISCOVERY PLAN

INTRODUCTION

Project Location and Description

Under an Agreed Order with the Washington Department of Ecology (Ecology), Block 79, LLC is conducting studies for on-going cleanup of contamination on the Block 79 East property. This Archaeological Monitoring and Inadvertent Discovery Plan has been developed to meet Department of Ecology requirements pursuant to WAC 173-340-815 (3).

The project area is in the South Lake Union neighborhood in section 30 Township 25 North Range 4 East, Wilamette Meridian (Figure 1). The project area comprises four King County parcels (4088803565, 4088803485, 4088803440, and 4088803435) and is bounded by Aloha Street on the north, 9th Avenue N in the east, Roy Street on the south, and a midblock alley on the west. Previous investigations and cleanup work on the site has included geotechnical borings and monitoring wells, removal of several underground storage tanks and hydraulic hoists. This project will complete an additional 30 borings and 16 monitoring wells for environmental sampling. Proposed borings and shallow water-bearing zone monitoring wells will extend 15 to 30 feet below the surface (fbs) and one intermediate water-bearing zone monitoring well will extend to 85 fbs.

Potential for Discovery

No previous cultural resource investigation has been conducted within the project property but the area is classified as “High Risk” to “Very High Risk” on the DAHP’s statewide predictive GIS model. Review of DAHP records, historical maps and geotechnical borelogs indicates that the project area has high potential to contain cultural resources, particularly sites dating to the early 20th century.

Logs from previous borings and monitoring wells in and near the project area indicate that fill deposits generally extend to depths of 25-30 feet below the surface and woody debris, brick, and glass fragments are common in the upper 5 feet of brown-colored fill. Cultural material in this upper fill is unlikely to include discrete, primary cultural deposits that would constitute archaeological sites. However, in some areas this upper brown fill is underlain by a dark brown to black organic fill containing more concentrated historic debris. Some borelogs refer to this as “trash fill”. This layer is consistently recorded for borelogs in the northern portion of the MAACO property (parcel 4088803485), the northeast corner of the Ducati property (parcel 4088803440) and the 8th Avenue ROW north of these parcels. This deeper historical fill layer is consistent with that encountered from roughly 10 to 15 feet below the surface (25-30 feet elevation) during monitoring for the 700 Block of Dexter, less than 200 feet west of the project area. That project resulted in the recording of archaeological site 45K11451, a historical midden deposit associated with a Seattle Municipal dump that was in use at 8th and Aloha from 1915 until at least 1920. The resource was determined Not Eligible for listing in the NRHP due to lack of stratigraphic differentiation or identifiable features. It is likely that this site will be found to extend into the Block 79 project area, necessitating a revision of the site boundary and additional evaluation of eligibility.

Many borelogs also record abundant timbers, woody debris, or sawdust but do not note other cultural material. This prevalence likely reflects the proximity of the project area to the historic sawmill that operated from 1882 into the 1930s southeast of the project area.

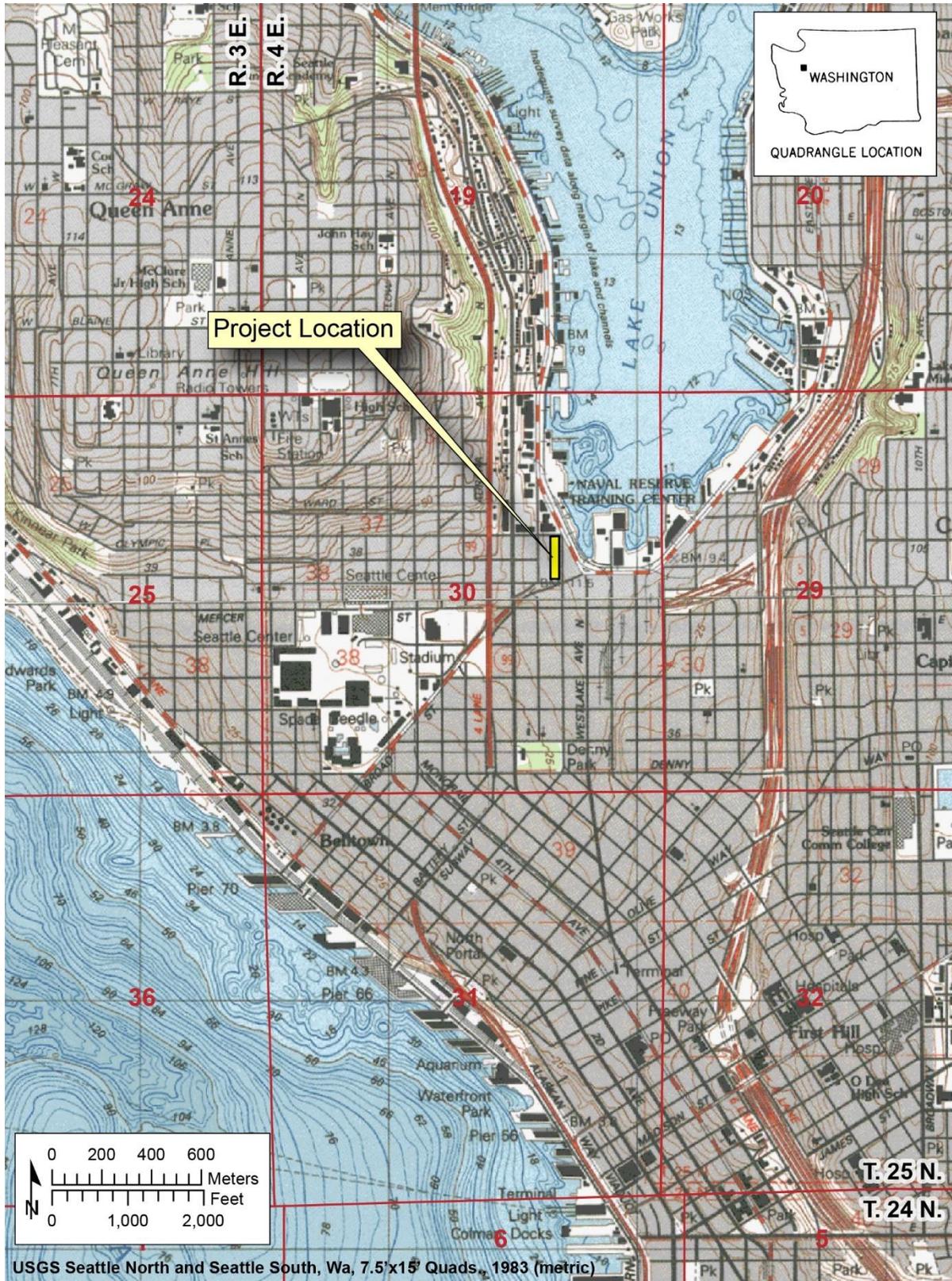


Figure 1 Project location

Contains Confidential Information
Not for General Distribution

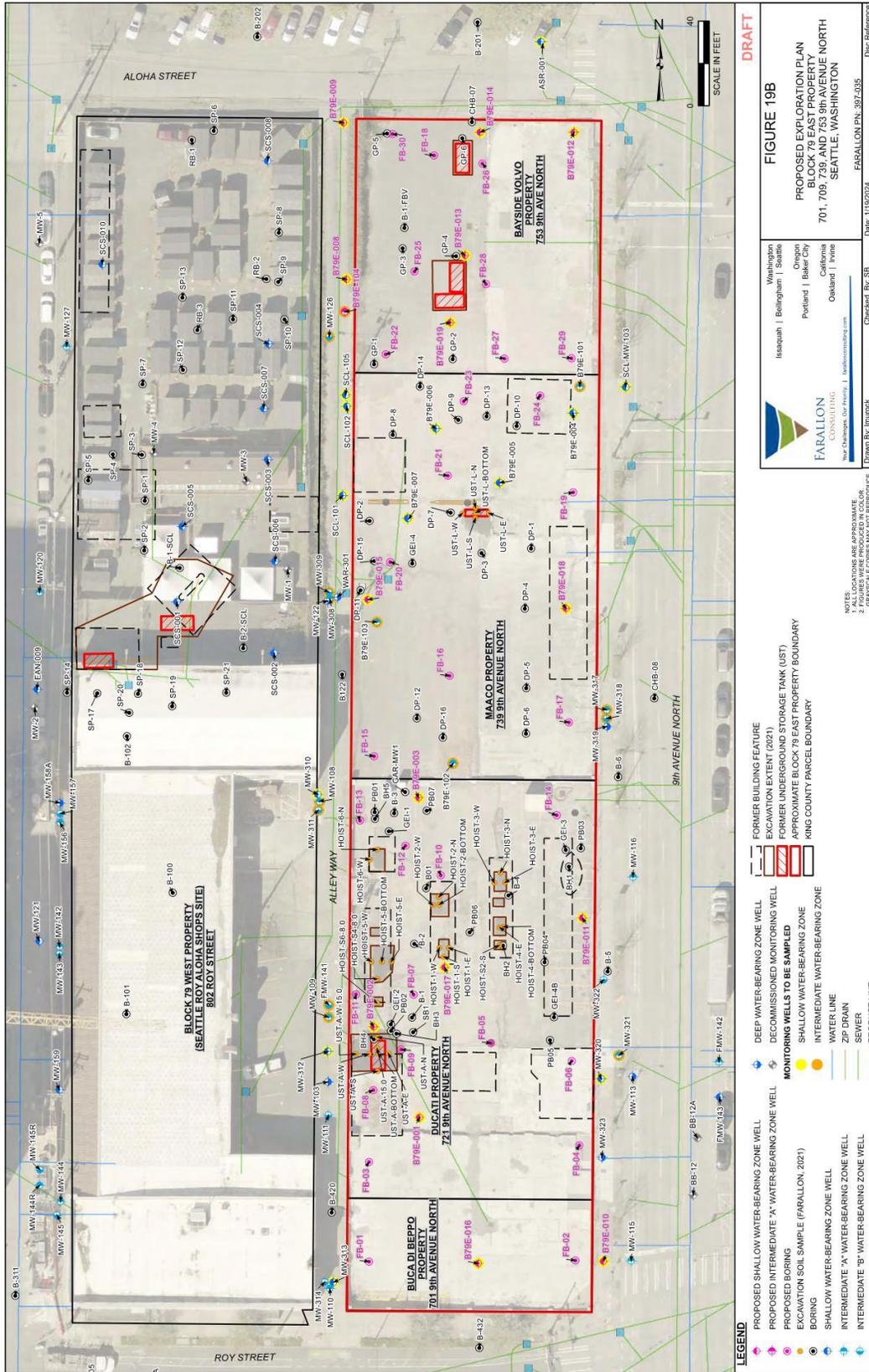


Figure 2. Proposed exploration plan showing existing and proposed boring locations.

Borelogs also demonstrate that post-glacial deposits are present below fill. These are alluvial or lacustrine deposits that accumulated when the project area was within Lake Union prior to filling of the project area between 1908 and 1912. In general, this deposit extends from 12 fbs to roughly 40 fbs. It is less likely that intact archaeological sites would be found in this layer since it was entirely inundated in the late Holocene, however, Native peoples have been active in and around Lake Union for thousand of years, ethnographic sources have recorded several Lushootseed-language placenames for landmarks and resource-gathering locations in the project vicinity, and lake levels have fluctuated over time. Therefore, although low-risk, there remains a possibility that precontact artifacts or features could be encountered within the recent deposit underlying fill.

MONITORING PLAN

Briefing

Prior to the initiation of ground disturbing activity within the project area, a project archaeologist will brief key personnel including on-site supervisors on the contents of this plan. The primary goal of the briefing is to familiarize project personnel with the contents of this MIDP, the cultural resources potential of the property, and procedures to be followed in case potentially significant cultural resources are discovered during planned ground-disturbing activities. This briefing will be informal and may occur before work on the first day of the project. Additional briefings may be arranged if new personnel or subcontractors are brought on for the project.

Monitoring Roles and Responsibilities

The final page of this document provides a contact list for all project personnel detailed in this section. See also Parts 3, 4, 6, and 11 of the Ecology IDP included as Attachment A.

1. Consulting Parties

Consulting Parties include Ecology, the DAHP, and affected Native American Tribes. *Consulting Parties* must be included in all decision-making pertaining to any adverse effects to potentially significant historic properties within the project area.

Additionally, Ecology and all affected Tribes must be notified in advance of all project activities pursuant to archaeological monitoring. A minimum of one week's notice prior to the first day of planned on-site monitoring is required. A minimum of 48 hours prior notice is required for all planned monitoring activity subsequent to the initial day of on-site monitoring. Ecology and all affected Tribes must also be invited to send representatives to monitor project ground-disturbing activities.

2. Archaeological Monitor

The *Archaeological Monitor* will be a professional archaeologist who is trained in archaeological monitoring.

An Archaeological Monitor must be present for all activity with the potential to cause disturbance to postglacial soils or sediments (including historical fill) within the property. Historical fill that has not previously been disturbed by the current project constitutes new ground disturbance, may contain potentially significant cultural resources, and must be monitored.

The *Archaeological Monitor* need not be present during activities that are not expected to result in ground disturbance. The *Archaeological Monitor* also need not be present during activities that result in disturbance to soils or sediments that have previously been disturbed by activities related to the current project.

During archaeological monitoring, the *Archaeological Monitor* will examine spoils brought to surface by drilling. The *Archaeological Monitor* will observe ground disturbance from multiple perspectives around and in front of working equipment, requiring close communication with on-site personnel. The *Archaeological Monitor* will be safely stationed to observe ground disturbance and will coordinate with on-site work personnel to safely enter the work area as needed.

The *Archaeological Monitor* will be responsible for notifying on-site work personnel when discoveries of potentially significant archaeological materials are made during monitoring, for initiating discovery protocols detailed in Part 3 of the project IDP (Attachment A) as needed during on-site monitoring, and for maintaining daily work records and documenting work activities during monitoring.

3. Monitoring Supervisor

The *Monitoring Supervisor* will be a professional archaeologist who meets SOI standards as per 36 CFR Part 61. The *Monitoring Supervisor* will serve as the Project Archaeologist as per Part 3, Step C in the Ecology IDP (Attachment A). The *Monitoring Supervisor* is therefore also responsible for notification of *Consulting Parties* as needed (as per Attachment A, Part 3, Step D) if archaeological materials are discovered during monitored project ground disturbance. The *Monitoring Supervisor* will also assume responsibility for ensuring Ecology IDP (Attachment A) Part 6 (Special Procedures for the Discovery of Human Remains), Part 7 (Documentation of Archaeological Materials), and Part 8 (Proceeding with Work) are completed for instances in which cultural resources are identified during on-site monitoring. The *Monitoring Supervisor* will serve as the point of contact for the *Project Manager* for scheduling of on-site archaeological monitoring and will in turn notify affected Tribes of this schedule as needed.

If at any stage of project excavation, the *Monitoring Supervisor* determines that the potential for encountering potentially significant cultural resources is lower than expected, they may propose a reduction in the level of monitoring effort for the project to *Consulting Parties*.

4. Project Manager

The *Project Manager* is the representative of Block 79, LLC (or their delegate) responsible for coordinating all project activities related to archaeological monitoring. The *Project Manager* is ultimately responsible for ensuring that all regulations applicable to cultural resources in the development area are met and that all project personnel adhere to details set forth in this document, as per Part 9 (Organization Responsibility) of the Ecology IDP (Attachment A).

The *Project Manager* is also responsible for notifying the *Monitoring Supervisor* of the general work schedule as well as the scheduled times of on-site activities requiring archaeological monitoring. The *Project Manager* will also immediately notify the *Monitoring Supervisor* of any cancellations or other changes to the planned schedule for archaeological monitoring.

Similarly, the *Project Manager* will be responsible for ensuring no new ground disturbance occurs within the parcel if no *Archaeological Monitor* is present, and for notifying the *Monitoring Supervisor* if archaeological materials are discovered when no *Archaeological Monitor* is present.

Scheduling

Advance notice of the need for archaeological monitoring must be provided to the *Monitoring Supervisor* as described above except in emergency situations. Emergency situations include inadvertent discovery of cultural materials when an archaeological monitor is not present. Advance notice of at least one week is required for initiation of archaeological monitoring. Advance notice of at least one week is preferred for any subsequent

amendments to the monitoring schedule. A minimum of 48 hours advance notice is required for such amendments, including cancellations of scheduled monitoring. Day-of cancellations of scheduled archaeological monitoring may incur hourly expenses at the discretion of the *Monitoring Supervisor*.

Advance notice of the construction schedule and need for archaeological monitoring must also be provided to designated representatives of affected Tribes as described above.

Monitored Discovery Protocols

The primary goal of archaeological monitoring will be discovery and documentation of previously unknown intact cultural deposits in the project area and delineation the 45K11451 site boundary if it is found to extend into the project area. This section details the procedures to be followed in the event of a discovery while the *Archaeological Monitor* is present. **An *Archaeological Monitor* must be present for all activity with the potential to cause disturbance to postglacial soils or sediments (including historical fill) within the property unless consulting parties agree to a reduction in the level of monitoring effort.**

Archaeological Discovery Protocol

The following steps outline the process for identification and treatment of potentially significant archaeological resources identified during archaeological monitoring:

1. If the *Archaeological Monitor* determines that potential cultural deposits have been exposed, excavation will pause for a preliminary assessment of the find by the *Archaeological Monitor*. Initial assessment will focus on establishing the nature, extent, and integrity of any discovery. The *Archaeological Monitor* may ask on-site work personnel to modify work plans to allow such assessment. Such modification may include a pause or redirection of mechanical excavation or other activity as needed to identify, access, and temporarily protect potential cultural materials.
2. If, in the opinion of the *Archaeological Monitor*, potentially significant cultural material has been encountered, the *Archaeological Monitor* will immediately initiate protocols detailed by Part 3 and/or Part 6 of the Ecology IDP (Attachment A) as needed. The archaeological monitor will then begin initial non-invasive documentation of the discovery for the purpose of communicating pertinent information to the *Monitoring Supervisor*.
3. If identified cultural materials are potentially significant in the opinion of the *Monitoring Supervisor*, the *Monitoring Supervisor* will initiate Step D of Part 3 of the Ecology IDP (Attachment A) by contacting designated representatives of Block 79, LLC and Ecology as needed. Notification of affected Tribes will then be conducted by the *Monitoring Supervisor* unless Ecology elects to do so; if no Ecology representative can be reached within two hours of the discovery, the *Monitoring Supervisor* will automatically proceed with notification of the affected Tribes and the DAHP.
4. As required by law, treatment of identified cultural materials will then be determined in consultation between the *Monitoring Supervisor* and all *Consulting Parties*. No additional ground disturbance with the potential to affect potentially significant archaeological materials will occur until consultation is completed and the DAHP provides explicit permission to resume ground disturbance.

INADVERTENT DISCOVERY PLAN

Work conducted within the property that does not result in ground disturbance with the potential to affect postglacial soils or sediments (including historical fill) may proceed without the presence of an *Archaeological Monitor*. Ground-disturbing activity within glacially deposited sediments may occur without the presence of an *Archaeological Monitor*. Ground-disturbing work within the property that only affects contexts that have been

previously disturbed by project activities may also proceed without the presence of an *Archaeological Monitor*. For example, ground disturbance that occurs only within newly emplaced fill sediments may proceed without the need for an *Archaeological Monitor*.

When no *Archaeological Monitor* is present, all project activities remain subject to the provisions specified by the Ecology IDP (Attachment A). It is the responsibility of the *Project Manager* to ensure all provisions of the Ecology IDP are upheld even when no *Archaeological Monitor* is present.

Failure to follow the requirements of this document and the attached Ecology IDP exposes both individuals and their employers to legal liability.

CONFIDENTIALITY

Archaeological properties are of a sensitive nature, and sites where cultural resources are discovered can become targets of vandalism and illegal removal activities. All parties shall keep and maintain as confidential all information regarding any discovered cultural resources, particularly the location of known or suspected archaeological properties. This information is exempt from public disclosure as stipulated by state law (RCW 42.56.300). Project personnel and contractors should especially keep the discovery of any found or suspected human remains confidential, including refraining from contacting the media or sharing information regarding the discovery with the public. Any reports prepared as a result of a cultural resources discovery during construction are confidential. **Any failure to keep information related to cultural resources identified within the project area confidential exposes both individuals and their employers to potential legal liability.**

CONTACTS

Project Representatives..... (See Attachment A, Part 3)

Washington State Department of Ecology (See Attachment A, Part 3)

Project Archaeologists

Jack Johnson, Perteet Inc. Project Archaeologist (Monitoring Supervisor) (206) 291-4857

Emily Peterson, Perteet Inc. Cultural Resources Manager (Alternate Monitoring Supervisor) (206) 818-9765
(Archaeological Monitor TBD)

Law Enforcement (See Attachment A, Part 6)

Department of Archaeology and Historic Preservation (DAHP) (See Attachment A, Part 3)

Tribal Cultural Resources Contacts (See Attachment A, Parts 4 and 11)

ATTACHMENT A
Inadvertent Discovery Plan



INADVERTENT DISCOVERY PLAN PLAN AND PROCEDURES FOR THE DISCOVERY OF CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS

To request ADA accommodation, including materials in a format for the visually impaired, call Ecology at 360-407-6000 or visit <https://ecology.wa.gov/accessibility>. People with impaired hearing may call Washington Relay Service at 711. People with a speech disability may call TTY at 877-833-6341.

Site Name(s):

Location:

Project Lead/Organization:

County:

If this Inadvertent Discovery Plan (IDP) is for multiple (batched) projects, ensure the location information covers all project areas.

1. INTRODUCTION

The IDP outlines procedures to perform in the event of a discovery of archaeological materials or human remains, in accordance with applicable state and federal laws. An IDP is required, as part of Agency Terms and Conditions for all grants and loans, for any project that creates disturbance above or below the ground. An IDP is not a substitute for a formal cultural resource review (Executive 21-02 or Section 106).

Once completed, **the IDP should always be kept at the project site** during all project activities. All staff, contractors, and volunteers should be familiar with its contents and know where to find it.

2. CULTURAL RESOURCE DISCOVERIES

A cultural resource discovery could be prehistoric or historic. Examples include (see images for further examples):

- An accumulation of shell, burned rocks, or other food related materials.
- Bones, intact or in small pieces.
- An area of charcoal or very dark stained soil with artifacts.
- Stone tools or waste flakes (for example, an arrowhead or stone chips).
- Modified or stripped trees, often cedar or aspen, or other modified natural features, such as rock drawings.
- Agricultural or logging materials that appear older than 50 years. These could include equipment, fencing, canals, spillways, chutes, derelict sawmills, tools, and many other items.
- Clusters of tin cans or bottles, or other debris that appear older than 50 years.
- Old munitions casings. **Always assume these are live and never touch or move.**
- Buried railroad tracks, decking, foundations, or other industrial materials.
- Remnants of homesteading. These could include bricks, nails, household items, toys, food containers, and other items associated with homes or farming sites.

The above list does not cover every possible cultural resource. When in doubt, assume the material is a cultural resource.

3. ON-SITE RESPONSIBILITIES

If any employee, contractor, or subcontractor believes that they have uncovered cultural resources or human remains at any point in the project, take the following steps to ***Stop-Protect-Notify***. **If you suspect that the discovery includes human remains, also follow Sections 5 and 6.**

STEP A: Stop Work.

All work must stop immediately in the vicinity of the discovery.

STEP B: Protect the Discovery.

Leave the discovery and the surrounding area untouched and create a clear, identifiable, and wide boundary (30 feet or larger) with temporary fencing, flagging, stakes, or other clear markings. Provide protection and ensure integrity of the discovery until cleared by the Department of Archaeological and Historical Preservation (DAHP) or a licensed, professional archaeologist.

Do not permit vehicles, equipment, or unauthorized personnel to traverse the discovery site. Do not allow work to resume within the boundary until the requirements of this IDP are met.

STEP C: Notify Project Archaeologist (if applicable).

If the project has an archaeologist, notify that person. If there is a monitoring plan in place, the archaeologist will follow the outlined procedure.

STEP D: Notify Project and Washington Department of Ecology (Ecology) contacts.

Project Lead Contacts

Primary Contact

Name:

Organization:

Phone:

Email:

Alternate Contact

Name:

Organization:

Phone:

Email:

Ecology Contacts (completed by Ecology Project Manager)

Ecology Project Manager

Name:

Program:

Phone:

Email:

Alternate or Cultural Resource Contact

Name:

Program:

Phone:

Email:

STEP E: Ecology will notify DAHP.

Once notified, the Ecology Cultural Resource Contact or the Ecology Project Manager will contact DAHP to report and confirm the discovery. To avoid delay, the Project Lead/Organization will contact DAHP if they are not able to reach Ecology.

DAHP will provide the steps to assist with identification. DAHP, Ecology, and Tribal representatives may coordinate a site visit following any necessary safety protocols. DAHP may also inform the Project Lead/Organization and Ecology of additional steps to further protect the site.

Do not continue work until DAHP has issued an approval for work to proceed in the area of, or near, the discovery.

DAHP Contacts:

Name: Rob Whitlam, PhD
Title: State Archaeologist
Cell: 360-890-2615
Email: Rob.Whitlam@dahp.wa.gov
Main Office: 360-586-3065

Human Remains/Bones:

Name: Guy Tasa, PhD
Title: State Anthropologist
Cell: 360-790-1633 (24/7)
Email: Guy.Tasa@dahp.wa.gov

4. TRIBAL CONTACTS

In the event cultural resources are discovered, the following tribes will be contacted. See Section 10 for Additional Resources.

Tribe:	Tribe:
Name:	Name:
Title:	Title:
Phone:	Phone:
Email:	Email:
Tribe:	Tribe:
Name:	Name:
Title:	Title:
Phone:	Phone:
Email:	Email:

Please provide contact information for additional tribes within your project area, if needed, in Section 11.

5. FURTHER CONTACTS (if applicable)

If the discovery is confirmed by DAHP as a cultural or archaeological resource, or as human remains, and there is a partnering federal or state agency, Ecology or the Project Lead/Organization will ensure the partnering agency is immediately notified.

Federal Agency:

Agency:

Name:

Title:

Phone:

Email:

State Agency:

Agency:

Name:

Title:

Phone:

Email:

6. SPECIAL PROCEDURES FOR THE DISCOVERY OF HUMAN SKELETAL MATERIAL

Any human skeletal remains, regardless of antiquity or ethnic origin, will at all times be treated with dignity and respect. Follow the steps under **Stop-Protect-Notify**. For specific instructions on how to handle a human remains discovery, see: [RCW 68.50.645: Skeletal human remains—Duty to notify—Ground disturbing activities—Coroner determination—Definitions](#).

Suggestion: If you are unsure whether the discovery is human bone or not, contact Guy Tasa with DAHP, for identification and next steps. Do not pick up the discovery.

Guy Tasa, PhD State Physical Anthropologist

Guy.Tasa@dahp.wa.gov

(360) 790-1633 (Cell/Office)

For discoveries that are confirmed or suspected human remains, follow these steps:

1. Notify law enforcement and the Medical Examiner/Coroner using the contacts below. **Do not call 911** unless it is the only number available to you.

Enter contact information below (required):

- Local Medical Examiner or Coroner name and phone:

 - Local Law Enforcement main name and phone:

 - Local Non-Emergency phone number (911 if without a non-emergency number):
2. The Medical Examiner/Coroner (with assistance of law enforcement personnel) will determine if the remains are human or if the discovery site constitutes a crime scene and will notify DAHP.
 3. **DO NOT speak with the media, allow photography or disturbance of the remains, or release any information about the discovery on social media.**
 4. If the remains are determined to be non-forensic, Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection and to shield them from being photographed by others or disturbed.

Further activities:

- Per [RCW 27.44.055](#), [RCW 68.50](#), and [RCW 68.60](#), DAHP will have jurisdiction over non-forensic human remains. Ecology staff will participate in consultation. Organizations may also participate in consultation.
- Documentation of human skeletal remains and funerary objects will be agreed upon through the consultation process described in [RCW 27.44.055](#), [RCW 68.50](#), and [RCW 68.60](#).
- When consultation and documentation activities are complete, work in the discovery area may resume as described in Section 8.

If the project occurs on federal lands (such as a national forest or park or a military reservation) the provisions of the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) apply and the responsible federal agency will follow its provisions. Note that state highways that cross federal lands are on an easement and are not owned by the state.

If the project occurs on non-federal lands, the Project Lead/Organization will comply with applicable state and federal laws, and the above protocol.

7. DOCUMENTATION OF ARCHAEOLOGICAL MATERIALS

Archaeological resources discovered during construction are protected by state law [RCW 27.53](#) and assumed eligible for inclusion in the National Register of Historic Places under Criterion D until a formal Determination of Eligibility is made.

The Project Lead/Organization must ensure that proper documentation and field assessment are made of all discovered cultural resources in cooperation with all parties: the federal agencies (if any), DAHP, Ecology, affected tribes, and the archaeologist.

The archaeologist will record all prehistoric and historic cultural material discovered during project construction on a standard DAHP archaeological site or isolate inventory form. They will photograph site overviews, features, and artifacts and prepare stratigraphic profiles and soil/sediment descriptions for minimal subsurface exposures. They will document discovery locations on scaled site plans and site location maps.

Cultural features, horizons, and artifacts detected in buried sediments may require the archaeologist to conduct further evaluation using hand-dug test units. They will excavate units in a controlled fashion to expose features, collect samples from undisturbed contexts, or to interpret complex stratigraphy. They may also use a test unit or trench excavation to determine if an intact occupation surface is present. They will only use test units when necessary to gather information on the nature, extent, and integrity of subsurface cultural deposits to evaluate the site's significance. They will conduct excavations using standard archaeological techniques to precisely document the location of cultural deposits, artifacts, and features.

The archaeologist will record spatial information, depth of excavation levels, natural and cultural stratigraphy, presence or absence of cultural material, and depth to sterile soil, regolith, or bedrock for each unit on a standard form. They will complete test excavation unit level forms, which will include plan maps for each excavation level and artifact counts and material types, number, and vertical provenience (depth below

surface and stratum association where applicable) for all recovered artifacts. They will draw a stratigraphic profile for at least one wall of each test excavation unit.

The archaeologist will screen sediments excavated for purposes of cultural resources investigation through 1/8-inch mesh, unless soil conditions warrant 1/4-inch mesh.

The archaeologist will analyze, catalogue, and temporarily curate all prehistoric and historic artifacts collected from the surface and from probes and excavation units. The ultimate disposition of cultural materials will be determined in consultation with the federal agencies (if any), DAHP, Ecology, and the affected tribe(s).

Within 90 days of concluding fieldwork, the archaeologist will provide a technical report describing any and all monitoring and resultant archaeological excavations to the Project Lead/Organization, who will forward the report to Ecology, the federal agencies (if any), DAHP, and the affected tribe(s) for review and comment.

If assessment activities expose human remains (burials, isolated teeth, or bones), the archaeologist and Project Lead/Organization will follow the process described in **Section 6**.

8. PROCEEDING WITH WORK

The Project Lead/Organization shall work with the archaeologist, DAHP, and affected tribe(s) to determine the appropriate discovery boundary and where work can continue.

Work may continue at the discovery location only after the process outlined in this plan is followed and the Project Lead/Organization, DAHP, any affected tribe(s), Ecology, and the federal agencies (if any) determine that compliance with state and federal laws is complete.

9. ORGANIZATION RESPONSIBILITY

The Project Lead/Organization is responsible for ensuring:

- This IDP has complete and accurate information.
- This IDP is immediately available to all field staff at the sites and available by request to any party.
- This IDP is implemented to address any discovery at the site.
- That all field staff, contractors, and volunteers are instructed on how to implement this IDP.

10. ADDITIONAL RESOURCES

Informative Video

Ecology recommends that all project staff, contractors, and volunteers view this informative video explaining the value of IDP protocol and what to do in the event of a discovery. The target audience is anyone working on the project who could unexpectedly find cultural resources or human remains while excavating or digging. The video is also posted on DAHP's inadvertent discovery language website.

[Ecology's IDP Video](https://www.youtube.com/watch?v=ioX-4cXfbDY) (<https://www.youtube.com/watch?v=ioX-4cXfbDY>)

Informational Resources

[DAH P \(https://dahp.wa.gov\)](https://dahp.wa.gov)

[Washington State Archeology \(DAH P 2003\)](https://dahp.wa.gov/sites/default/files/Field%20Guide%20to%20WA%20Arch_0.pdf)

[\(https://dahp.wa.gov/sites/default/files/Field%20Guide%20to%20WA%20Arch_0.pdf\)](https://dahp.wa.gov/sites/default/files/Field%20Guide%20to%20WA%20Arch_0.pdf)

[Association of Washington Archaeologists \(https://www.archaeologyinwashington.com\)](https://www.archaeologyinwashington.com)

Potentially Interested Tribes

[Interactive Map of Tribes by Area](https://dahp.wa.gov/archaeology/tribal-consultation-information)

[\(https://dahp.wa.gov/archaeology/tribal-consultation-information\)](https://dahp.wa.gov/archaeology/tribal-consultation-information)

[WSDOT Tribal Contact Website](https://wsdot.wa.gov/tribal/TribalContacts.htm)

[\(https://wsdot.wa.gov/tribal/TribalContacts.htm\)](https://wsdot.wa.gov/tribal/TribalContacts.htm)

11. ADDITIONAL INFORMATION

Please add any additional contact information or other information needed within this IDP.

Implement the IDP if you see...

Chipped stone artifacts.

Examples are:

- Glass-like material.
- Angular material.
- “Unusual” material or shape for the area.
- Regularity of flaking.
- Variability of size.



Stone artifacts from Oregon.



Stone artifacts from Washington.



Biface-knife, scraper, or pre-form found in NE Washington. Thought to be a well knapped object of great antiquity. Courtesy of Methow Salmon Rec. Foundation.

Implement the IDP if you see...

Ground stone artifacts.

Examples are:

- Unusual or unnatural shapes or unusual stone.
- Striations or scratching.
- Etching, perforations, or pecking.
- Regularity in modifications.
- Variability of size, function, or complexity.



Above: Fishing Weight - credit [CRITFC Treaty Fishing Rights website](#).



Artifacts from unknown locations (left and right images).



Implement the IDP if you see...

Bone or shell artifacts, tools, or beads.

Examples are:

- Smooth or carved materials.
- Unusual shape.
- Pointed as if used as a tool.
- Wedge shaped like a “shoehorn”.
- Variability of size.
- Beads from shell (‘dentalium’) or tusk.



Upper Left: Bone Awls from Oregon.

Upper Center: Bone Wedge from California.

Upper Right: Plateau dentalium choker and bracelet, from Nez Perce National Historical Park, 19th century, made using Antalis pretiosa shells Credit: Nez Perce - Nez Perce National Historical Park, NEPE 8762, Public Domain.

Above: Tooth Pendants. Right: Bone Pendants. Both from Oregon and Washington.



Implement the IDP if you see...

Culturally modified trees, fiber, or wood artifacts.

Examples are:

- Trees with bark stripped or peeled, carvings, axe cuts, de-limbing, wood removal, and other human modifications.
- Fiber or wood artifacts in a wet environment.
- Variability of size, function, and complexity.



Left and Below: *Culturally modified tree and an old carving on an aspen (Courtesy of DAHP).*

Right, Top to Bottom: *Artifacts from Mud Bay, Olympia: Toy war club, two strand cedar rope, wet basketry.*



Implement the IDP if you see...

Strange, different, or interesting looking dirt, rocks, or shells.

Human activities leave traces in the ground that may or may not have artifacts associated with them. Examples are:

- “Unusual” accumulations of rock (especially fire-cracked rock).
- “Unusual” shaped accumulations of rock (such as a shape similar to a fire ring).
- Charcoal or charcoal-stained soils, burnt-looking soils, or soil that has a “layer cake” appearance.
- Accumulations of shell, bones, or artifacts. Shells may be crushed.
- Look for the “unusual” or out of place (for example, rock piles in areas with otherwise few rocks).



Shell Midden pocket in modern fill discovered in sewer trench.



Underground oven. Courtesy of DAHP.

Shell midden with fire cracked rock.



Hearth excavated near Hamilton, WA.

Implement the IDP if you see...

Historic period artifacts (historic archaeology considered older than 50 years).

Examples are:

- Agricultural or logging equipment. May include equipment, fencing, canals, spillways, chutes, derelict sawmills, tools, etc.
- Domestic items including square or wire nails, amethyst colored glass, or painted stoneware.



Left: Top to Bottom: *Willow pattern serving bowl and slip joint pocket knife discovered during Seattle Smith Cove shantytown (45-KI-1200) excavation.*



Right: *Collections of historic artifacts discovered during excavations in eastern Washington cities.*



Implement the IDP if you see...

Historic period artifacts (historic archaeology considered older than 50 years).

Examples are:

- Railway tokens, coins, and buttons.
- Spectacles, toys, clothing, and personal items.
- Items helping to understand a culture or identity.
- Food containers and dishware.



Main Image: *Dishes, bottles, workboot found at the North Shore Japanese bath house (ofuro) site, Courtesy Bob Muckle, Archaeologist, Capilano University, B.C. This is an example of an above ground resource.*



Right, from Top to Bottom:
Coins, token, spectacles and Montgomery Ward pitchfork toy discovered during Seattle Smith Cove shantytown (45-KI-1200) excavation.



Implement the IDP if you see...

- Old munition casings – if you see ammunition of any type – ***always assume they are live and never touch or move!***
- Tin cans or glass bottles with an older manufacturer's technique – maker's mark, distinct colors such as turquoise, or an older method of opening the container.



Far Left: .303 British cartridge found by a WCC planting crew on Skagit River. Don't ever touch something like this!
Left: Maker's mark on bottom of old bottle.

Right: Old beer can found in Oregon. ACME was owned by Olympia Brewery. Courtesy of Heather Simmons.



Logo employed by Whithall Tatum & Co. between 1924 to 1938 (Lockhart et al. 2016).



Can opening dates, courtesy of W.M. Schroeder.

Implement the IDP if you see...

You see historic foundations or buried structures.

Examples are:

- Foundations.
- Railroad and trolley tracks.
- Remnants of structures.



Counter Clockwise, Left to Right: *Historic structure 45KI924, in WSDOT right of way for SR99 tunnel. Remnants of Smith Cove shantytown (45-KI-1200) discovered during Ecology CSO excavation, City of Spokane historic trolley tracks uncovered during stormwater project, intact foundation of historic home that survived the Great Ellensburg Fire of July 4, 1889, uncovered beneath parking lot in Ellensburg.*

Implement the IDP if you see...

Potential human remains.

Examples are:

- Grave headstones that appear to be older than 50 years.
- Bones or bone tools--intact or in small pieces. It can be difficult to differentiate animal from human so they must be identified by an expert.
- These are all examples of animal bones and are not human.

Center: *Bone wedge tool, courtesy of Smith Cove Shantytown excavation (45KI1200).*

Other images (Top Right, Bottom Left, and Bottom) Center: Courtesy of DAHP.



Directly Above: This is a real discovery at an Ecology sewer project site.

What would you do if you found these items at a site? Who would be the first person you would call?

Hint: Read the plan!